

Statement of the Habilitation Committee

to the nomination of applicant

Tomáš Václavík, RNDr., Ph.D.,

Department of Ecology and Environmental Sciences, Faculty of Science, Palacký University Olomouc

docent for field: **Ecology**

Title of the Habilitation Thesis: *Landscape ecology in the Anthropocene: Spatial aspects of human–environment interactions across scales*

The Habilitation Committee

Chairman: **prof. MVDr. Emil Tkadlec, CSc.**

Palacký University Olomouc, Faculty of Science, Department of Ecology and Environmental Sciences

Members: **prof. Ing. Dr. Bořivoj Šarapatka, CSc.**

Palacký University Olomouc, Faculty of Science, Department of Ecology and Environmental Sciences

prof. Ing. Petr Sklenička, CSc.

Czech University of Life Sciences Prague
Faculty of Environmental Sciences
Department of Land Use and Improvement

prof. Ing. Mgr. Miroslav Trnka, Ph.D.

CzechGlobe and Mendel University in Brno,
Faculty of AgriSciences, Institute of Agrosystems and Bioclimatology

Prof. Guy Ziv, Ph.D.

University of Leeds
School of Geography, United Kingdom

The Committee was approved by the Scientific Board on September 13, 2019. Prof. MVDr. Emil Tkadlec, CSc. was appointed as chairman of the Committee. The Committee evaluated the submitted materials and assigned the following reviewers of the Habilitation Thesis:

doc. Ing. Petra Šímová, Ph.D., Czech University of Life Sciences in Prague, Faculty of Environmental Sciences

prof. RNDr. David Štorch, Ph.D., Charles University Prague, Centre for Theoretical Studies

Prof. Felix Eigenbrod, PhD, University of Southampton, UK

All three reviews are uniform in judgement and all recommend that the Habilitation Thesis be defended in front of the Scientific Board. The Committee thoroughly examined the Habilitation Thesis, the critical reviews and other materials. At the same time, it evaluated didactic and scientific activities of the candidate and proposed the following Statement about the presented materials.

Characterization of the candidate

RNDr. Tomáš Václavík, Ph.D. has been working to date as Assistant Professor in the Department of Ecology and Environmental Sciences, Faculty of Science, Palacký University Olomouc. I want to emphasize namely his successful doctoral study in the USA at University of North Carolina at Charlotte, where he received several awards, namely John Fraser Hart Award, Best Ph.D. Student Paper in 2009 or NASA-MSU Professional Enhancement Award in 2009.

Education and degrees

- 2004 Master's degree at Faculty of Science, PU Olomouc, program Nature Conservation and Environmental Protection,
- 2008 RNDr. at the Department of Ecology and Environmental Sciences, Faculty of Science, Palacký University Olomouc
- 2011 Ph.D. in Geography, University of North Carolina Charlotte, Department of Geography and Earth Sciences, Center for Applied Geographic Information Science, Charlotte, NC, USA, Prof. RK Meentemeyer

Professional experience

- 2007–2011 Research Assistant, University of North Carolina Charlotte, USA
- 2011–2019 Scientist, Hemholtz Centre for Environmental Research – UFZ, Department of Computational Landscape Ecology, Leipzig, Germany
- 2011– Assistant Professor, Department of Ecology and Environmental Sciences, Faculty of Sciences, Palacký University Olomouc

Research activities

RNDr. Tomáš Václavík, Ph.D. at present is a recognized specialist in the field of landscape ecology and GISciences. His work focuses on understanding the effects of natural and anthropogenic processes, especially land-use change, on biodiversity and ecosystem services. He strives to pursue interdisciplinary research that combines ecological theories with field and RS data, GIS spatial analysis, statistical computation, and predictive modelling to address the spatial dimensions of human-environmental problems. By applying modern statistical approaches, he concentrates on predictive modelling of human interactions with nature and resulting landscape problems arising this way. His most cited papers deal with predictive modelling of invasive species distributions within the colonisation events. His research activities and results can be summarised as follows:

- no. of research papers in IF journals: 41
- no. of accepted original research papers in IF journals: 1
- no. of papers in final preparation or peer review process in IF journals: 2
- no. of monographs: 0
- no. of chapters in monographs: 3
- no. of papers in peer reviewed papers without IF: 2
- no. of research papers in domestic journals: 1

- presentation (lecture or poster) at scientific conferences abroad: 69
- research project activities: participation in 8 international projects, 4× Leader of Work Package, the last one is Horizon 2020
- no. of citations from WOS Core Collection: 1200 in total, 1134 without self-citations (Aug 31, 2020);
- no. of citations in Google Scholar including self-citations: 1895 (Aug 31, 2020);
- h-index WOS: 17, average citations per item: 27.91

Out of 41 IF papers listed on WOS, 16 were published in journals with IF higher than 6, such as Science, Trends in Ecology and Evolution, Annual Review of Phytopathology, Nature Communications, or Global Environmental Change. He is the first author of 8 publications, he supervised another 6 papers and he has equal authorship on additional 3 papers. He is the first author of his most cited paper which received 174 citations. His papers were twice awarded the Dean Award of the Faculty of Science, Palacký University Olomouc.

Didactic activities

The applicant is also productive and experienced teacher. He got involved in teaching in 2008 when he started to give the course of Ecological modelling in GIS during his stay in the USA. Now he teaches this English course at Faculty of Science as well. Since 2011 he has given lectures on Landscape Ecology and participated in teaching of another 3 courses both at home and abroad. He is also active as a supervisor. In 2019, one doctoral student successfully defended his dissertation in Germany. At present, he leads one doctoral student at Faculty of Science. He supervised or supervises 18 Bachelor's or Master Theses of which 14 were successfully defended.

Organizational activities

In 2013–2015, Tomáš Václavík worked as an Associate Editor of the international journal Biological Invasions (IF = 3). At present, he is an Associate Editor of another two high impact factor journals: Diversity and Distributions (IF = 4) and Land (IF = 2,4). He is a frequented reviewer of many scientific journal abroad. This is attested by review requests from 24 international journals, including the highly ranked journal Science. He is a member of 8 scientific societies. He took part four times in management of international research projects as a WorkPackage Leader.

Habilitation lecture

The candidate proposed three topics for the habilitation lecture:

1. Global patterns of land use and biodiversity
2. Land use and ecosystem services in the Anthropocene
3. Effects of landscape heterogeneity in agro-ecosystems

Conclusion

Based on a proper examination of the submitted materials that document scientific and didactic activities of the candidate, and together with positive reviews of his habilitation thesis by the referees, Habilitation Committee came to conclude that RNDr. Tomáš Václavík, Ph.D. is highly erudite and internationally recognized landscape ecologist who significantly contributed to modern theory and knowledge in ecology. At the same time, the Committee agrees that RNDr. Tomáš Václavík, Ph.D. is a skilled teacher who systematically contributes to students' knowledge of ecology. Habilitation Committee is fully convinced about his research and didactic competence and recommends that the Scientific Board of the Faculty of Science, Palacký University Olomouc, agrees to award RNDr. Tomáš Václavík, Ph.D. the degree docent.

Voting of the Habilitation Committee:

The Habilitation Committee suggests that the Scientific Board of the Faculty of Science at Palacký University Olomouc awards *RNDr. Tomáš Václavík, Ph.D.* the degree of docent for the field of Ecology.

The results of voting:

Number of votes	5
Number of votes positive	5
Number of votes negative	0
Number of abstentions	0

Table of Criteria

Criterion	Recommended by SB UP	Mgr. Tomáš Václavík, Ph.D.
No. of papers in scientific journals	20–25	41
No. of monographs	0–1	3 chapters
No. of citations in scientific journals	10	1134 without self citations
Length of systematic teaching	3 years	11 years

Name

Signature

prof. MVDr. Emil Tkadlec, CSc. (chairman)

prof. Ing. Dr. Bořivoj Šarapatka, CSc.

prof. Ing. Petr Sklenička, CSc.

prof. Ing. Mgr. Miroslav Trnka, Ph.D.

Prof. Guy Ziv, Ph.D.

Olomouc, Sept 9, 2020