



## Habilitation Thesis Reviewer's Report

<b>Masaryk University</b>	of Science
<b>Faculty</b>	Ecology
<b>Procedure field</b>	name and surname, including academic degrees
<b>Applicant</b>	Dept. Botany and Zoology
<b>Applicant's home unit, institution</b>	Interdisciplinary investigations into the nature of ecology and evolution
<b>Habilitation thesis</b>	Robert A. D. Cameron BA. PhD. Hon DU.
<b>Reviewer</b>	Department of Animal and Plant Sciences, University of Sheffield, UK
<b>Reviewer's home unit, institution</b>	

### [Review text]

The material presented by Dr. Nekola in support of his habilitation amply demonstrates the range, integration and significance of his research. Many able researchers in a discipline may make a significant contribution to theoretical development in their field. Others contribute by providing the hard-won base of detailed knowledge that enables such developments to be tested and refined. Dr. Nekola does both, very much by design rather than as a haphazard scatter of unconnected enthusiasms.

In examining the nature and causes of patterns of biodiversity, he has been the originator of new modes of analysis that expose mechanisms rather than being merely descriptive; he has also been a stern critic of the easy assumption that fits to mathematical models lead simply to explanation. These papers are highly-cited, and his work is now referred to in canonical texts.

At the same time, he has rigorously examined the data on which analyses depend, revealing taxonomic confusion and errors in many of them. He has retained a "bottom-up" approach to field and laboratory studies that integrate information across disciplines. Again, these researches have been widely cited.

He has used the knowledge and insights gained to contribute to conservation management and to our understanding of the constraints on our own populations and economies. It is appropriate here to note the number of conservation projects for which he has received support.

The range of his formal teaching reflects the scope of his own research interests. It also demonstrates an ability to develop new programmes. These, and his many informal contributions demonstrate an enthusiasm and ability to communicate the interest and importance of the field in which he works to others. It is not a narrow field!

There is a satisfying unity in Dr. Nekola's work. Within a very broad field, it is scholarly, innovative and well-communicated. The wide range, both in terms of discipline and nationality, of those with whom he has collaborated is testimony to the esteem in which he is held.

**Reviewer's questions for the habilitation thesis defence**

1. Dr. Nekola has considered the spectrum of body-size in land snail assemblages. What other trait ranges might yield insights into the factors determining community assembly and composition?

2. Dr. Nekola has shown that many large-scale patterns of diversity fit rather general mathematical distributions that give little insight into causation. At what scales can we expect to get a handle on this?

**Conclusion**

The habilitation thesis entitled "Interdisciplinary investigations into the nature of ecology and evolution" by Jeffrey Nekola amply *fulfils* requirements expected of a habilitation thesis in the field of Ecology.

In Sheffield on April 8 2018

