



To the Rectors Office

Matej Bel University

Review on Professor proposal of doc. Ing. Ladislav Hamerlík PhD.

I am Dr. Krisztina Buczkó, a diatom expert, working at the Aquatic Ecology Institute of Centre of Ecological Research, Budapest, Hungary, as a scientific adviser, and also the curator of the Algological Collection of the Hungarian Natural History Museum. I have been a doctor of the Hungarian Academy of Science since 2018 (DSc).

My scientific interest focuses on climate change, paleolimnology of lakes and ponds, especially of mountain lakes. I believe, as the first author of a review paper about the study of mountain lakes of the Carpathians I have an overview about this region and as an expert of biological remains I can evaluate Dr. Ladislav Hamerlík's proposal correctly, indeed:

Buczkó, K., Magyari, E. K., Bitušík, P., & Wacnik, A. (2009). Review of dated Late Quaternary palaeolimnological records in the Carpathian Region, east-central Europe. *Hydrobiologia*, 631(1), 3-28.

It was in 2018 when I personally met Ladislav Hamerlík in a Conference (The IPA-IAL 2018 Joint Meeting: Unravelling the Past and Future of Lakes will be held in Stockholm, Sweden, from 18-21 June 2018.), but even earlier I have been familiar with his name and research activities for long years. Our last meeting in person was in CenTrain workshop in 2021 where he was a group leader for the Chironomidae group (<https://riverine.hu/CenTrain500>) and a leading person.

During the writing this review I checked his credits in the scientific database, Scopus, WoS, ResearchGate, Scholar and I can state that his scientific activity is very good in his field. (WoS (Core Collection): number of papers 54, in Scopus 53, citations 335. In ResearchGate 25,766 reads, 922, citation, 109 recommendations, 1183 total interest. In the Scholar, 1003 citations, H index 18, and i10 index 29. All these indicators are much higher than requires the Slovakian scientific system for the degree of Professor.

His most important 5 papers (Jacobsen et al., 2010 *Freshwater Biology*; Striberges et al., 2012 *Quaternary Science Reviews*; Reuss et al., 2013 *Limnologia*; Hamerlik et al., 2014 *Hydrobiologia*; Hamerlik et al., 2016 STOTEN) are highly cited and important contributions, focusing on basic questions of hydrobiology. These are e.g. the species-area relationships (SAR), habitat heterogeneity (ponds and lakes). The recently published STOTEN 2016 paper, where he is the first author is a multi-proxy study about the well-known mountain lake of Tatra Mts, Popradské pleso. Focusing on the land-use



change in the last 200 years (represented only by 8 cm sediment section). While Chironomidae were the main proxy, the results were supported also by elemental analysis and organic material content. Such kind of investigations are recently in the focus of scientists, and the results are welcomed by decision makers and local society so, and thus are very important.

I have also found a study dedicated to man-made ecosystems (small reservoirs) also very interesting and quite unique (Bitusik & Hamerlik 1997).

In my scientific values the best skills of Ladislav Hamerlik are: (1) strong taxonomical skills of Chironomidae that is an important proxy in paleolimnology (that is the basic of all reliable scientific work, and make him a leading professor); (2) expanded interest of his group (non-biting midges / Diptera: Chironomidae) all over the world; (3) steady scientific achievement in time; (4) his helpfulness for students, as I experienced via diatomists; (5) the skills of organizing a multi-proxy study.

Maybe one of his most important skills is his international presence, that can be keep his host institution (Matej Bel University) in the scientific network (see his grants). Dr. Hamerlík has a broad scientific background and has published scientific papers within many fields of research.

As I see his teaching activities via written activity, he is a great teacher: a textbook "Aplikovaná limnológia" (Applied limnology) was published in 2016 (with Peter Bitušík) – on 68 pp. that seems (written in Slovak language) a very useful and clear text with thematic figures for the students.

Overall, Ladislav Hamerlík is recently a key person in the Quaternary Science, not only in Central Europe but all over the world. His taxonomical skills are excellent and exemplary and make him suitable person to be a leading scientist. He is highly qualified to be a full professor, as evidenced by his publication track record, participation in international conferences and whole scientific and teaching activities.

I warmly recommend Ladislav Hamerlík to be provided with the full professor title and **I state Ladislav Hamerlík's scientific achievement meet requirements and even highly above it.**

Budapest 2022.02.11.

Dr. Krisztina Buczkó DSc.