

**EMIL HADAČ**  
– A FOUNDER OF CZECH LANDSCAPE ECOLOGY

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Botanist and ecologist Emil Hadač (1914–2003) spent his childhood in the Pardubice region of East Bohemia. He and his brother Jan grew up studying not only botanical science but also broader science research during the interwar period of the first half of the 20<sup>th</sup> century. During the World War II, they were credited for organizing professional community life in the region that affected other parts of Bohemia and Moravia. The following years of Emil Hadač's life, which are described in a number of biographic articles (Rambousková, 1994; Kovář, 2003; Rejmánek, 2003; Agnew et Rejmánek, 2003; Rejmánek *et al.*, 2004, etc.), include studies of botany at Charles University in Prague, expeditions or research stays in The Island, in Svalbard and Norway, in Iraq and Cuba, engagement at the State Institute for Peloid Research in Frantičkovy Lázně, teaching at the Faculty of Education in Pilsen, conducting research in the Institute of Botany of the Czechoslovak Academy of Science in Průhonice and finally assuming a position of director of a newly founded Institute of Landscape Ecology in 1971. The principal teachers of E. Hadač were Prof. Karel Domin (phytocoenology, landscape-phytogeographical view focusing on migration of plants and plant communities), Prof. Vladimír Krajina (significance of critical taxonomic view on species position in plant communities; after Krajina's emigration to Canada: concept of biogeoclimatic classification of landscape habitats) and Prof. Jaromír Klika (application of general biological and in particular coenological data in regional planning). Apart from the latter, the former two figures' scientific contributions and life histories were erased by the communist régime after the coup in 1948 and their names were taboo for years. Prof. Hadač never concealed his teachers at public presentations, even though he was politically left oriented and eventually became a member of the Communist Party due to coming from a poor background.

The following survey tries to pinpoint the most significant contributions of E. Hadač to the field:

\*floristic description of certain regions (flora and florula) not only in Czechoslovakia, but also in Norway, Cuba, Caucasus and Hindu Kush, always accompanied by valuable comments on species phytogeography, taxonomy, indication value related to the environment, reproduction biology, etc.

\*phytocoenological works, always combined with taxonomy, phytogeography, synecology and resulting in conclusions about mutual relations in nature and in recommendations for nature protection (e.g., Klika et Hadač, 1944),

\*founding works in the Arctic coenology and pioneering research applying Central European classification approach to plant communities in high northern latitudes. A joint work of Dahl et Hadač 1941 is given as one of milestones in this field (Shimwell, 1972),

\*monograph "Czechoslovak Peloids" (in Czech, Hadač *et al.*, 1954) on peat which despite its applied character has an "added value" provided by knowledgeable ecologist, for whom peat bogs are not purely a source of balneological or other use; later he published a series of syntaxonomic and synecological works on springs and peat bogs familiar to him from northern zonal biome of tundra,

\*monograph on vegetation of the valley Dolina siedmi prameňov in Belianske Tatras (in German, Hadač *et al.*, 1969) representing an interdisciplinary study based on a six-year extensive research in these unique Slovak mountains, at one point this locality became the most researched place of the Tatras National Park and includes data used in testing modern ecological hypotheses (Safford *et al.*, 2001),

\*description of new plant species and communities during his stay in Iraq (1959-61), enlargement of Prague herbal collections by about 6,000 imported items, new findings on ecology and dynamics of arid environment,

\*clarification of differences between species richness of tropical Indian-Pacific and Atlantic mangrove formations (inspired by the stay at Cuba, 1967), [a shorter period of time for species evolution in extreme coastal environment of the Atlantic Ocean, which came into being in the early Tertiary, launched international discussion and further mostly paleobotanic research],

\*observing evolution in a more balanced way than (neo)darwinists, emphasizing significance of positive interactions between plant species – facilitation, which ecologists have fully acknowledged only in the last two decades (Callaway, 1995; Choler *et al.* 2001; Bruno *et al.*, 2003),

\*forming a conceptual framework (e.g., Hadač *et al.*, 1977) for leading broad interdisciplinary research when being in charge of a newly established Institute of Landscape Ecology of the Czechoslovak Academy of Sciences (since 1971): Regions of Třeboň, Broumov and Most served as models for studies of different landscape types, landscape regions (basic landscape units) and ecological factors hierarchically affecting landscape features. Terminological perception of landscape as a system of geobiocoenoses, hydrobiocoenoses and technoantropocoenoses enabled re-organizing two institutional components, which gave rise to the Institute (Institute for Landscape Formation and Protection and Cabinet for Architecture Theory) into professionally structured teams corresponding to the stage of cultivation or deterioration of a given model landscape type. Thus, Hadač's effort resulted also in forming a communication platform between disciplines, indispensable for research efficiency.

After the decision to move the Institute to the South Bohemian Biological Center of the Czechoslovak Academy of Sciences (imposed by the Communist Party decree, May 1974) disrupted the continuity of the Institute development and E. Hadač was dismissed from the Director's position, he focused at activities in the committee of the Ecological Section of the Biological Society at the Czechoslovak Academy of Sciences. Until 1989, the Ecological

Section chaired by E. Hadač organized important seminars on environmental issues for both general and professional public. Similarly to previous years, Prof. Hadač assisted in solving a number of environmentally controversial cases. Also, he helped many highly qualified experts in dealing with personal difficulties caused often by “normalization” period following the Russian military occupation of Czechoslovakia after 1969. However, this is a completely different chapter. Hadač was not mediocre, neither as a researcher, nor as a human being although we do not necessarily need to agree with him on everything – besides, he was a keen debater and tolerated criticism. He lived a full life and he admitted the mistakes he had made – he regretted them. He was blessed to conduct science which gratified him till the end of his life even if its applications often meant a struggle. He was not afraid of it and waged it in a fair way. At least in this, he can serve a personality model for us.

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