

Editorial

The current issue of *Studia Quaternaria* contains the articles that were presented during the 4th International Conference *Natural resources of border areas under a changing climate* (NARBAC 2020). Due to the current global pandemic caused by the SARS-CoV-2 virus, the conference was held online at the Pomeranian University in Słupsk. This 4th edition of the NARBAC conferences continues a tradition of the previous interdisciplinary international meetings, organized in turn in Poland and the Ukraine, and dedicated to a required protection of environmental resources under a global climate change. The conference is addressed to interdisciplinary researches in

Earth sciences, employees of legally protected areas, representatives of local governments, the economic sector and residents. A discussion in such a wide range of participants allows an assessment of dynamics in boundary ecosystems against global changes as well as an exchange of local experiences.

The global pandemic resulted in appropriately modified program, adapted to the remote form and providing, in addition to standard scientific sessions also a virtual link through the Słowiński National Park. This conference, despite its online form, attracted a lot of interest from scientific centres in Poland and abroad, hosting speakers from



Fig. 1. Photo collage of participants of the 4th International Conference *Natural resources of border areas under a changing climate* (NARBAC 2020).

National Park of Białowieża, Central Botanical Garden of the National Academy of Sciences of Belarus, Chernihiv National T.G. Shevchenko Pedagogical University, Institute of Geological Sciences of the Polish Academy of Sciences, Mozyr Pedagogical University of I. Shamakin in Belarus, National Academy of Sciences of the Ukraine, State Higher Professional School in Chełm, Complex of Landscape Parks of the Łódź Voivodship, Field Branch of the Bolimowski Landscape Park and many others. The conference was supported by Marine Research Committee of the Polish Academy of Sciences, Słowiński National Park, Forest District Leśny Dwór, Forest District Ustka, Forest District Warcino, Damnica Commune, Słupsk Commune and Local Tourist Organization of Ustka and the Słupsk District.

The conference attracted over 60 participants with 35 presentations, subdivided into 4 main topics including environmental conditions of marine ecosystems and a coastal zone; ecological state of freshwater environments; trends in biodiversity change in different ecosystems, natural and

anthropogenic factors and their impact on climate and environmental change.

The papers in this volume of *Studia Quaternaria* refer to the issues presented during the conference. The topics are focused on impact of climate change on different ecosystems in different time scales, especially concerning plant communities and soil, and influence of human activity and anthropogenic pollution in macro- and microscale.

The Conference was organized by the Institute of Biology and Earth Sciences of the Pomeranian University in Słupsk, Słowiński National Park and Chernihiv National T.G. Shevchenko Pedagogical University. The organizers sincerely thank to all those who contributed to organization of the 4th International Conference *Natural resources of border areas under a changing climate* (NARBAC 2020), to authors and reviewers who helped to prepare this volume.

Chairman of the Organizing Committee,
Dr. Piotr Perliński

Guest Editor, Assoc. Prof. Monika Niska