

REPORT

NECLIME Workshop „Evidence and drivers for origin and appearance of modern plants and vegetation types (1st macroevolution workshop)“

Digital meeting on December 1st and 4th, 2023

Organizers: Agathe Toumoulin (Brno, Czech Republic), Alexandra N. Muellner-Riehl (Leipzig, Germany, Gaurav Srivastava (Lucknow, India), Tao Su (Chengdu; China) and Lutz Kunzmann (Dresden, Germany).

The workshop with over forty participants logging in from Europe, Asia, and North America was held over two half-days. Many of the participants came from the field of paleobotany (studying different types of plant fossil remains: pollen, leaves, wood, fungi), but also from present-day ecology/botany, or paleoclimatic modeling. Inspiring exchanges took place around the 14 presentations and during the two round table discussions. While the first round table dealt with the question ‚What is plant modernization?‘, the second round table discussed the question ‚When did vegetation become modern?‘. The very lively discussions also approached controversial opinions about terminology and time frames.

Several proposals have emerged from the workshop, which will enable short- to medium-term collaborations to develop. (1) Meet at the IPC/IOPC, where many workshop participants will be attending (Prague, May) in order to stay in close contact and perhaps to establish another NECLIME working group, the Macroevolution Group. (2) Produce a journal article, likely as a review paper summarizing the previous concept(s) of "modernization". The manuscript work will be coordinated by Alexandra Muellner-Riehl. (3) The publication of this article might consolidate the community and help organizing future workshops on the theme. Tao Su proposed checking application opportunities with the Sino-German Center for getting funding for a face-to-face workshop.

Workshop participants were invited to consider contributions to the session THE ORIGIN AND EVOLUTION OF MODERN PLANT DIVERSITY: INSIGHTS FROM MULTIPLE DISCIPLINES to be held at the International Botanical Congress in Madrid in 2024 organized by Alexandra, Agathe, and Tao.

To the opinions of the organizers, this first macro evolution workshop was successful and seems to be conducive to the emergence of an international and interdisciplinary scientific community, driven by a common interest: to better describe the establishment of today's vegetation.