



10th European Palaeobotany and Palynology Conference

12th to 17th of August, Dublin, Ireland

At the 10th EPPC in Dublin (Ireland) from 12th to 17th of August 2018, NECLIME members contributed two scientific session NECLIME-related scientific issues:

14. Cenozoic Plant Diversity Of Tibet, Himalayas and Hengduan Mountains

Conveners: Tao Su, Zhe-kun Zhou, Lutz Kunzmann

It is one of main targets in the current world to understand how did palaeoenvironment changes shape biodiversity in geological past. For studying this topic, fossils from areas which have both complex environment conditions and high biodiversity play a crucial role. Tibet, Himalayas and Hengduan mountains experienced dramatic uplift and formed complex topography and varieties of climates; meanwhile, Himalayas and Hengduan mountains are hotspots of biodiversity in the world nowadays. Strongly affected by monsoons the time of onset of these specific climate regimes is still a matter of debate between geoscientists and molecular biologists. Many Cenozoic floras were found from Tibet, Himalayas and Hengduan mountains which potentially open windows to deep-time palaeoenvironments. All these facts make Tibet, Himalayas and Hengduan mountains predestinated as natural laboratories to test the influence and role of palaeoenvironment changes on the formation and development of biodiversity. During recent decades, fossils from those regions attracted a lot of attention not only to palaeobotanists, but also to researchers from other disciplines, such as geologists, and ecologists. It is time to integrate evidence from plant fossils, palaeoclimate reconstructions, geological information, and molecular data to better understand the mechanisms of biodiversity in response to palaeoenvironmental changes. This symposium will provide a platform for those who are interested in the theme mentioned above. Meanwhile, it will have broad audience from palaeontology to modern biology, and we hope this symposium will stimulate further cooperation for researchers from different disciplines.



25. Cenozoic plant diversity gradients in time and space and their impact on early humans (ROCEEH/NECLIME)

Convenors: **Angela A. Bruch, Alexandra-Jane Henrot, Louis François, Natalia Rudaya, Torsten Utescher**

The worldwide cooling throughout the Cenozoic and decline of atmospheric carbon dioxide had a significant impact on the evolution of biodiversity. The diversity evolution of various plant groups and functional types mirrors the differentiation of phytocoenoses existing under equable climate conditions in the earlier Palaeogene into communities thriving under steeper latitudinal temperature gradients and the development of seasonal drought in the continental interiors. Moreover, the Cenozoic era is characterized by significant uplift and hence increase in geodiversity in many regions of the globe thus producing also altitudinal diversity gradients. These changes in the structure and functions of vegetation and ecosystems also impacted the evolution of Cenozoic fauna, as well as the displacement and life habits of early humans and pre-humans communities, which make use of vegetation directly, as in the case of food and firewood, and indirectly, for example as a habitat for animal life.

Quantitative reconstructions of palaeovegetation from data and models are thus crucial to understand the interactions between Cenozoic climate and vegetation changes, as well as their impact on early humans, their migration routes and behavioral or cultural changes since the Early Pleistocene.

In this session, we welcome contributions on quantitative reconstructions of vegetation from proxy data and/or models at various spatiotemporal scales of the Cenozoic era, and particularly at archaeological/palaeoanthropological sites relevant for the Palaeolithic expansion. This open session is organised in the framework of NECLIME (Neogene Climate Evolution in Eurasia, www.neclime.de) and ROCEEH (The Role of Culture in Early Expansions of Humans, www.roceeh.net).