NECLIME newsletter 2022

Dear colleagues and members of NECLIME,

Thanks to all of you for another year of successful NECLIME activities. Your input and dedication keep NECLIME visible, beneficial and alive.

This newsletter mainly summarizes information on this year's and forthcoming events as well as shortly highlights the scientific topics which will be in the focus of NECLIME in the near future.

Moreover, there are some changes in the coordination team of NECLIME to be announced and sad news about our dear members Prof. Dr. Leon Stuchlik and Dr. Maria Ziembińska-Tworzydło.

Any news we may spread, any updates for the website, or suggestions for NECLIME working group meetings (2023 and 2024) or conference venues (2025) are highly welcome! Please contact us!

With kind regards and season greetings,

the NECLIME coordination team

Marianna, Martina, Torsten and Angela

NECLIME newsletter 2022

Past events

NECLIME Annual Conference 2022 / 2nd NECLIME online conference, 21 – 24 Nov 2022

The NECLIME Annual Conference 2022 had to be held online again and was organized by Angela Bruch, Torsten Utescher, Marianna Kováčová and Martina Stebich. With 60 registrations from 20 countries and 24 oral presentations the meeting gave a great overview on the research of the NECLIME community.

Moreover the technical option of the wonderroom again proofed to be a nice tool for lively discussions in smaller groups. Still, we miss the direct personal exchange and look forward to meet in person soon again.

The abstract volume and a brief report will be available on our website.

Workshop of the NECLIME working group on climate, online, February 21-22, 2022

The 5th workshop of the NECLIME working group on climate took place online and was organized by Andrea Kern and Thomas Kenji Akabane. The workshop was well-received with 37 participants including a great number of young scientists. The main purpose of this workshop was to discuss the potential and limitation of new methods for paleoclimate reconstructions for Quaternary and Neogene datasets on a global scale, especially those applying probability density functions (pdf). Additionally, comparisons with the Coexistence Approach, non-plant proxy data as well as different pdf methods were discussed. A second scientific focus lay on the impact on CO^2 on plant-based paleoclimate reconstructions and how this can be accessed through time.

A detailed report is available on our website including preliminary considerations on the use of CRACLE and CREST for paleoclimate reconstructions, references, and links to useful R packages.

NECLIME ECR workshop, online, March 15-16, 2022

The first NECLIME-ECR Workshop the organized by the ECRs had the topic *Starting the identification process: taxonomic and taphonomic issues.* It was organized by Arindam Chakraborty, Astghik Papikyan, Gabriele Niccolini and held online with 18 participants from 4 countries (Armenia, India, Italy, UK). The

group invited key note lectures by Amit Ghosh (BSIP), Kevin McCartney (Univ. of Maine), and Angela Bruch. Based on those the group discussed the challenges that the ECRs face during their daily research.

A short report is available on our website.

Workshop of the working group on palynology, Bratislava, Slovakia, May 24-26, 2022

The working group meeting on palynology was held in person at the Comenius University in Bratislava organized by Marianna Kováčová. The working group focused in its key topic on the discussion of LM/SEM approaches in pollen taxonomy important to precise related NRL and the potential of developing a NECLIME modern and fossil Pollen database. Practical joint microscopy work was focused on reference collections, this time e.g. Juglandaceae, Sapotaceae, Oleaceae, as well as on fossil material e.g. from Karpatian hypostratotype Hevlín in Czech Republic and Late Miocene samples from different site in the Danube basin.

A short report will be available on our website.

Forthcoming events

NECLIME Annual Meeting 2023, Matsudo/Chiba, Japan, August 30th to September 6th 2023

Next year's NECLIME annual meeting will be held in Matsudo, Chiba, Japan from August 30th to September 6th 2023, cosponsored by the Graduate School of Horticulture, Chiba University. This conference will be our first **hybrid** meeting, organized as an in-person event with online option for colleagues with difficulties traveling abroad.

There will be the opportunity to visit the mixed mesophytic forest of *Fagus japonica*, *Cyclobalanopsis*, *Abies*, and *Tsuga* at Mt. Takao (west Tokyo) on a 1-day excursion. Moreover, a 4-days excursion will lead to several locations of fossil and modern forests.

We are very grateful to our local hosts Arata Momohara, Yoichi Watanabe (Chiba University), and Chiyomi Yamakawa (Lake Biwa Museum) who make this event possible.

The first circular was distributed and will be available on our website soon.

NECLIME pollen working group meeting 2023, Antalya, Turkey, 18-19 October, 2023

The next NECLIME pollen workshop will be held at the Geological department of Akdeniz University in Antalya. We thank the main organizers Serkan Akkiraz, Erdal Koşun, and Dimiter Ivanov for this great opportunity to meet in person and discuss pollen and NPP morphology and taxonomy and their implications for environmental studies

Members of the NECLIME ECR group engaged in palynology are highly welcome to join this event!

The first circular will be out soon.

related event: INQUA, Rome, Italy, 13-20 July, 2023

The International Quaternary Association meets in 2023 in Rome mid of July. Several sessions are announced with topics related to NECLIME research. (abstract submission closed)

Follow updates on INQUA Roma at https://inquaroma2023.org/

related event: Palaeontological Virtual Congress IV, 8-22 May, 2023

A session dedicated to Early Career Research is organized by our member Agathe Toumoulin:

Recent advances in paleobotany and paleoecology by early career researchers (Organisers: Agathe Toumoulin, Aixa Tosal, Anne-Laure Decombeix)

more information can be found on the conference website http://palaeovc.org/index.php/recent-advances-in-paleobotany-and-paleoecology-by-early-career-researchers/

Abstract submission is open until **March 8th 2023** http://palaeovc.org/index.php/guideline-for-abstracts/

related event: IPC/IOPC Prague, 23-31 May, 2024

The joint International Palynological Congress (IPC) and International Organisation of Palaeobotany Conference (IOPC) is always an important international event related to NECLIME research.

2024 the conference will be held in Prague in the center of Europe and will be a great opportunity to learn about new research and to meet many of our colleagues in person.

The website is announced to be launched end of 2022. Save the date and follow the news on IPC/IOPC Prague.

NECLIME annual conference, Almaty, Kazakhstan, autumn 2024

The NECLIME annual conference 2024 is anticipated to be held in Almaty, Kazakhstan. Our thanks go to Saida Nigmatova from the Institute of Geological Sciences, Almaty, who started to organize this event including excursions to Paleogene-Neogene fossil sites in the amazing landscape of South-East Kazakhstan. More details will be available in 2023.

Any other suggestions for NECLIME working group meetings (2023 and 2024) or conference venue (2025) are highly welcome! Please contact us!

Scientific focus topics for the next years

During the last NECLIME conferences we identified some scientific focal topics for the next years, which fall within the general scope of the NECLIME objectives. They may be addressed at the next conferences, in topical workshops, or special issues etc.

- Extreme environments/events (e.g., high latitudes, high altitudes, high CO^2 world, drought events)
- Biogeography, climate, and evolution in the Paleogene
- Plant biodiversity and vegetation history
- Proxy-model-comparison (proxies for winter temperatures)
- Regime shifts in the climate system and in the vegetation (and possible feedback mechanisms)
- Regional signals of past climate and vegetation to be compared with future scenarios

Changes in the NECLIME coordination tea

Unfortunately Andrea Kern left us this summer to start a new job. Not only is science loosing a brilliant mind and excellent scientist, NECLIME also is missing an extremely engaged member as well of the NECLIME community as of the coordination team.

We are happy to welcome Dana Höfer as a new member of the NECLIME coordination team. On January 1, 2023, she will begin a new position at the Senckenberg Research Station for Quaternary Palaeontology in collection and data coordination with a special focus on palaeobotany. For NECLIME she takes over the maintenance of our web-site from Andrea Kern.

In memory of Prof. Dr. Leon Stuchlik and Dr. Maria Ziembińska-Tworzydło

During the NECLIME online conference last month we learned about the sudden death of Dr. Maria Ziembińska-Tworzydło, Warsaw University Poland, at the age of 85. Just a few days later, Prof. Dr. Leon Stuchlik from the Institute of Botany of the Polish Academy of Sciences in Krakow, also passed away this year at the age of 91.

Both of them were leading specialist in palynology of the Central European Cenozoic and authors of the famous 'Atlas of Pollen and Spores of the Polish Neogene', which is a multi-volume reference publication that many of us use and value a lot.

Besides their profound knowledge on pollen morphology and taxonomy, we will also miss their collegiality and kindness.

We convey our sincere sympathy to their families.

In memory of Prof. Dr. Leon Stuchlik (1931-2022)

'His long scientific career is an expression of his wide interests in botany, both the green and the paleobotanic ones. His passion for botanic exploration of distant countries – North Korea, Cuba, India, China, USA, and the European ones (including the Caucasus), have resulted in long-term scientific co-operation with many distingushed paleobotanists and botanists all over the world.

At the turn of the century, uncertainties in taxonomy and nomenclature of Neogene pollen and spores from the Polish and Middle European sites created difficulties in stratigraphic correlation, and even hampered scientific cooperation. To improve this, a multi-year study of these aspects was undertaken in Poland in 90th of the twenty century, based on about 300 well known pollen sites. This study was aimed at creating an atlas of Late Cenozoic (Neogene) sporomorphs, in which taxonomy would be closer interrelated with stratigraphic palynology, contemporaneous botany and plant geography. Thanks to the efforts of a group of dedicated specialists guided by Professor Leon Stuchlik, the Atlas of Pollen and Spores of the Polish Neogene came to life.'

(from: Kohlman-Adamska, A. & Ziembińska-Tworzydło, M., 2011. A homage to the Editor and Co-author of the "Atlas of Pollen and Spores of the Polish Neogene". Acta Palaeobotanica 51(1), 9-10.)

In memory of Dr. Maria Ziembińska-Tworzydło (1938–2022)

Dr. Maria Ziembińska-Tworzydło was lecturer at the Branch of Paleontology of the Geology Department of the Warsaw University. Paleobotanist, researcher of Tertiary fossil floras, member of the Paleobotanical Section of the Polish Botanical Society. Long-term collaborator of the NECLIME group.

The scientific activity of Dr. Maria Ziembińska-Tworzydło focused primarily on the study of Tertiary sediments using palynological methods. She studied spore and pollen grain assemblages and their succession from the coalfields in Turów, Bełchatów and Wielkopolska region. She was a co-author of the interregional spore-pollen correlation of the Neogene deposits of the Polish part of the European Tertiary basin. She analyzed paleofloristic and paleoclimatic changes in the Neogene of Central and Eastern Europe. She introduced a new palynostratigraphic division of the Neogene deposits in the Polish Lowlands and presented the pollen characteristics of all lignite seams. A significant part of her research was the analysis of the surface microstructure of pollen grains observed in a scanning microscope. The key work in the achievements of Dr Maria Ziembińska-Tworzydło was the direction and co-creation of the four-volume Atlas of Pollen and Spores of the Polish Neogene, containing a taxonomic revision and rich illustration of Neogene sporomorphs, in which she was the creator and co-creator of new fossil genera and species of pollen grains. In addition, she is the author and co-author of over forty publications and the co-author of the Handbook of Palynology and the author of textbooks in the field of paleobotany for students of the Warsaw University. She was a member of the Editorial Board of Acta Palaeobotanica.

In a group of Tertiary palynologists, we collaborated on the creation of the Atlas for over 20 years, it was a very creative and fruitful time, Maria created a fantastic atmosphere during this painstaking work. She was our good friend and scientific guide at the same time. She was active until the last few days, a few months ago she wrote an article on Polish Paleobotany and reviewed several papers in this field.

Barbara Słodkowska
Polish Geological Institute, Warsaw

We are losing some wonderful colleagues who have made superb contributions to our science. *Bob Spicer*

I met both professors year ago in the institute of Botany of the Polish Academy of Sciences in Krakow. I still member their hospitality and friendship. *Zhou Zhe-kun*

What a loss - they were both not only great scientists/palaeobotanists but also great personalities, friends and colleagues which we will miss! *Volker Mosbrugger*