



Symposium Program

09.09.2023 Saturday

5 PM – 8 PM Registration and Welcome Party at Museum of Evolution of the Institute of Paleobiology, Polish Academy of Sciences (<https://muzeumewolucji.pl>) [[Palace of Culture and Science](#)]

10.09.2023 Sunday

10:00 AM Meeting in Warsaw: Parking lot in the front of Museum of Evolution

1:00 PM Owadów-Brzezinki: Exceptionally preserved Late Jurassic ecosystem
Lunch with "rural housewives"

3:30 PM departure from Owadów-Brzezinki

4:30 PM arrival to Julianka: Coral colonization of the cyanobacteria-sponge bioherms, Late Jurassic

± 6 PM arrival to European Centre for Geological Education, Chęciny (ECEG) - dinner (**7 PM**)

11.09.2023 Monday

7:30-9:00 AM Breakfast

10:00 AM Opening Ceremony

11:00-11:30 AM Coffee break

11:30 AM Keynotes

- **Tali Mass.** Mechanisms that enable corals to persist and thrive in extreme environments: what can we learn from modern corals.
- **Anne M. Gothmann.** Corals in changing seas: A geochemical journey through geological epochs.

1:30-2:30 PM Lunch

2:30 PM Corals and climate change [Chair: Wolfgang Kiessling: talks 15 min; discussions 5 min]

- **Nadia Santodomingo**, Zarinah Waheed, Ali Bin Seyd Hussein, Allia Rosedy, Chris Perry, Sindia Sosdian, Brain Rosen, and Kenneth G. Johnson. Long-term resilience of turbid ecosystems in the Coral Triangle.
- **Danijela Dimitrijević** and Wolfgang Kiessling. Reef refugia in the aftermath of hyperthermal events.
- **Jarosław Stolarski**, Paolo Montagna, Eric Douville, Maciej Mazur, and Francesca R. Bosellini. Evolutionary potential of scleractinian corals to buffer ocean acidification: Cenozoic fossil record perspective.

3:45 PM departure to "[Wietrznia](#)" nature reserve

4:15 PM - 6:45 PM A brief history of Holy Cross Mountains" at "Wietrznia" nature reserve

7:30 PM - 9:00 PM Dinner

12.09.2023 Tuesday

7:30-9:00 AM Breakfast

9:30 AM Coral biomineralization and skeletal proxies [Chair: Francesca R. Bosellini: talks 15 min; discussions 5 min]

- **Thomas C. Brachert**, Thomas Felis, Phyllis Mono, and Markus Reuter. Tropical reef corals underwent chronic heat stress but no bleaching events during the Late Miocene: Evidence from stable isotope data and calcification records

- **Luisa C. Meiritz**, Christian Deusner, Jan Fietzke, Nadia Santodomingo, Thomas Felis, and Eleni Anagnostou. Reconstructing ultra-high-resolution climate variability and symbiont bleaching in tropical corals: Introducing a multi-proxy approach
- **Mono Phyllis**, Thomas C. Brachert, Regina Mertz-Kraus, Michael Henehan, Vadim L. Stefanskyi, and Bogusław Kołodziej. First record of calcification performance of subtropical reef corals from the Eocene.
- **Andres Rüggeberg**, Robin Fentimen, Eline Feenstra, Antonietta Rosso, Thiery Adatte, Torsten Vennemann, Irka Hajdas, Norbert Frank, David van Rooij, and Anneleen Foubert. Cold-water coral mound build-up at the East Melilla Coral Province (SE Alboran Sea, western Mediterranean)
- **Jarosław Stolarski**, Deyanira Cisneros-Lazaro, Laura M. Otter, and Anders Meibom. Biological control over CaCO₃ polymorphism and the evolution of biomineralization: Insights from the bi-mineralic skeleton of *Paraconotrochus antarcticus* scleractinian coral.

11:20-11:45 AM Coffee break

11:45 AM Challenges of coral phylogeny and taxonomy [Chair: **Brian Roy Rosen**: talks 15 min; discussions 5 min]

- **Bernard Lathuilière**, Danwei Huang, and the Corallosphere group. Tentative cladograms for Triassic and Jurassic coral families.
- **Zuzana Geistová** and Bogusław Kołodziej. Prolific development of amphistroids and other pachythecal corals (Hexanthiniaria?, Scleractinia?) in reefs on the Štrambersk Carbonate Platform (Tithonian–Berriasian).
- **Jingfang Bo**, Jianxin Yao, Jiafei Xiao, and Weiqing Liu. Anisian coral fauna from Guizhou, Southwestern China.
- **Isabel Rodriguez-Castro**, Ian D. Somerville, and Sergio Rodriguez. Origin and evolution of the genera *Lonsdaleia* and *Actinocyathus*: Insights for Mississippian palaeogeography from the Western Palaeotethys.

1:00-2:00 PM Lunch

2:00 PM Coral paleobiology, functional morphology and photosymbiosis [Chair: **Nadia Santodomingo**: talks 15 min; discussions 5 min]

- **Francesca R. Bosellini** and Jarosław Stolarski. The rolling stones: An extreme evolutionary adaptation of colonial scleractinian corals to colonize soft bottoms.
- **Błażej Berkowski**, Mikołaj K. Zapalski, and Phil Alderslade. Holdfasts and growing tips of heterocoral colonies: A case study of two Famennian genera *Oligophylloides* and *Mariaephyllia*.
- **Jan Król**, **Błażej Berkowski**, Julien Denayer, and Mikołaj K. Zapalski. Photosymbiosis in heliolitid corals.
- **Aleksander Majchrzyk**, Michał Jakubowicz, Pim Bongaerts, and Mikołaj K. Zapalski. Convergent patterns in light-induced phenotypic plasticity in Devonian and modern corals.
- **Le Yao**, Wei Lin, Markus Aretz, David J. Bottjer, and Xiangdong Wang. Colonial coral resilience by decreasing size: Reaction to increased detrital influx during onset of the late Palaeozoic Ice Age.
- **Mikołaj Zapalski**, Błażej Berkowski, Stanisław Skompski, John W. Pickett, and Gavin C. Young. An Early Devonian Mesophotic Coral Ecosystem from the East Gondwana.

4:15-4:45 PM Coffee break

4:45 PM Fossil coral reefs: research methods [Chair: **Lewis A. Jones**: talks 15 min; discussions 5 min]

- **Matthieu Sallol**, Markus Aretz, and Élise Nardin. A new quantitative approach for palaeoenvironmental and palaeoecological studies of biostromes: The case study of an Emsian biostrome in the French Basque Country.
- **Angelina Ivkić**, Felix Puff, Andreas Kroh, Abbas Mansour, Mohamed Osman, Mohamed Hassan, Ahmed Abo El Hagag, and Martin Zuschin. A comparison of three sampling techniques in Egyptian Pleistocene coral reefs.
- Francisco Sanchez Beristain, **Miguel A. Galeana-Moran**, Francisco Sour-Tovar, and Pedro Garcia-Barrera. Reviewing Fagerstrom's reef-guilds with Geometric Morphometrics: A case study of Permian reef from Mexico
- **Bogusław Kołodziej**, Zuzana Geistová, Justyna Kowal-Kasprzyk, and Petr Skupien. Three types of reefs in the Štrambersk Limestone developed at the Jurassic/Cretaceous transition (Carpathians, Czech Republic)

7:00-9:00 PM Bonfire dinner

13.09.2023 Wednesday

7:30-9:00 AM Breakfast

9:00 AM Reefs in space and time [Chair: Markus Aretz: talks 15 min; discussions 5 min]

- **Natsuko Adachi**, Naoto Minami, Yoichi Ezaki, Jianbo Liu, Mahito Watabe, Gundsambuu Altanshagai, Batkhuanq Enkhbaatar, Dorj Dorjnamjaa. The thrombolite-dominated archaeocyath reefs of the Cambrian Series 2 from the Zuune Arts area of western Mongolia: Construction and palaeoenvironments.
- **Julien Denayer** and Francis Tourneur. The Devonian Coral Fauna of the Bruche valley (Northern Vosges Massif, France).
- **Cian McAuley**, Alex Brasier, Kevin Page, Joyce Neilson, John Still, Neil Ogle, and Neil Davies. Deep and dirty coral bearing bioherms from the Late Devonian of South Devon: Exploring the limits of Palaeozoic carbonate buildups.
- **Liang Kun**. Middle Devonian (Givetian) coral-stromatoporoid patch reefs from the Lazhulung Formation, Xizang (Tibet) and their implications.
- **Edouard Poty**. Micro-mudmounds at the end of the late Frasnian, the last gasp of Frasnian bioconstructions before their end.
- **Thomas Stemann** and Mitchell Simon. A mesophotic coral fauna from the Middle Rupelian of Central Jamaica
- **Addis Endeshaw**, Nadia Santodomingo, Haileyesus Negga, and Anneleen Foubert. Paleoecological characterization of Middle and Late Pleistocene reefs of the Danakil Depression (Northern Afar, Ethiopia).
- **Miguel A. Galeana-Moran**, Francisco Sour-Tovar, and Francisco Sanchez Beristain. A brief review of the study of “coralline sponges” from Mexico.

12:00-12:30 AM Coffee break

12:30 AM Coral paleobiodiversity patterns [Chair: Julien Denayer: talks 15 min; discussions 5 min]

- **Wolfgang Kiessling**, Daniela Dimitrijević, Kerstin Frühbeisser, Nussaibah B. Raja, and Francesca R. Bosellini. Matches and mismatches between reef proliferation and reef builder diversity on geological time scales.
- **Lewis A. Jones**, Angelina Ivkić, Andreas Kroh, Abbas Mansour, Mohamed Osman, Mohamed Hassan, Martin Zuschin. Inverse latitudinal diversity gradients in Last Interglacial coral reef communities.
- **Arnaud Ruchat**, Bernard Lathuilière, Stephan Wohlwend, Gaudenz Deplazé, Herfried Madritsch, Gregor P. Eberli, Susanne Feist-Burkhardt, Elias Samankassou. Bajocian coral reefs: Likely a global reef growth event.
- **Travis Stone**, Rowan Martindale, Stéphane Bodin, Bernard Lathuilière, Raphael Vasseur, Tanner Fonville, François-Nicolas Krencker, and Lahcen Kabiri. Extinction-induced changes to Moroccan reef ecology in the Early Jurassic.

1:50-2:50 PM Lunch

2:50 PM – 4:00 PM **Poster session & coffee**

Coral paleobiodiversity patterns

- **Daniela Dimitrijević**, Timothy L. Staples, Nussaibah B. Raja, John M. Pandolfi, and Wolfgang Kiessling. Novel reef communities emerging after mass extinction events.

Coral biomineralization and skeletal proxies

- **Anne M. Gothmann**, Joash Daniel, Yi Wynn Chan, John Cliff, Lubos Polerecky, Julie Grenger, Josie Mottram, and Maria Prokopenko. Nanoscale imaging of organic matrix and aragonite formation in a skeleton of a cold-water coral *B. elegans*.
- Valentina di Fazio, Giuseppe Falini, Raffaele Gattelli, Christian Ghiroldi, **Stefano Goffredo**, Arianna Mancuso, Chiara Marchini, Paolo Montagna, Fiorella Prada, and Marco Taviani. Skeletal properties of the coral *Desmophyllum dianthus* are related to the aragonite saturation state along a depth gradient in the Mediterranean Sea.

Coral paleobiology, functional morphology and photosymbiosis

- Klaudiusz Salamon and **Bogusław Kołodziej**. Skeleton microbiome of fossil scleractinian corals deciphered from microborings
- **Jan J. Król**, Błażej Berkowski, and Mikołaj Zapalski. Approximation of skeletal density in tabulate corals

Fossil coral reefs: research methods

- **Martin Zuschin**, Angelina Ivkić, Edwige Pons-Branchu, Paolo Montagna, Marco Taviani, Abbas Mansour, Mohamed Osman, Mohamed Hassan, Ahmed Abo El Hagag, and Andreas Kroh. New U-Th age data for Middle and Late Pleistocene coral terraces at five localities of the northern Red Sea of Egypt and their palaeoecological composition

- **Tanja Unger**, Matthieu Saillol, Markus Aretz, Stephen Lokier, Mathias Mueller, and Adrian Immerhauser. The Klutert Biostrome: A model for reefs in sediment-stressed environments?
- **Le Yao**, Stephen Kershaw, Shuzhong Shen, and Xianngdong Wang. A new reef classification model with insights into Phanerozoic evolution of reef ecosystems.
- **Xia Wang, Hanting Zhong**, Jianhua Chen, Zongqi Lin, Cai Wang, Yuhan Zeng, Lingzan Meng, Mingcai Hou, Yalin Li, and Chengshan Wang. Outcrop3D: A digital pathway to the deep-time reefs.

Reefs in space and time

- **Miranda Hartley**, Mattias Green, Hannah Byrne, and lael Perez. Cnidaria: A proxy for Cambrian tides?
- Tanya Singh, **Zuzana Geistová**, and Bogusław Kołodziej. Cretaceous corals from SE India: a return to Ferdinand Stoliczka's (1873) research area.
- **Victor Ohar**. Corals from the middle Visean black shales of the Donets Basin
- **Brian Roy Rosen** and **Jill Darrell**. Glimpse of a Brigantian (Mississippian) tropical sea floor on the Derbyshire carbonate platform, England.

4:15 [Chęciny castle](#) and town tour

7:15 PM - 9:00 PM Dinner

14.09.2023 Thursday

7:30-8:30 AM Breakfast

8:30 AM – 2:30 PM Devonian mesophotic environments of the Holy Cross Mountains

2:30 PM – 5:00 PM Lunch (& Pierogi presentation) at [Ethnographic Park in Tokarnia](#) (near ECEG)

since **6:00 PM** General Assembly

8:00 PM-9:00 Dinner

15.09.2023 Friday

7:00-8:30 AM Breakfast

9:00 AM departure from European Centre for Geological Education, Chęciny

12:30 PM arrival to Kraków ([Parking Wawel](#), near Wawel Castle)

4:00 PM departure from Kraków ([Parking Wawel](#), near Wawel Castle)

4:30PM arrival to [Wieliczka Salt Mine](#)

5:00 PM Wieliczka Salt Mine guided tour

7:00-9:00 PM Conference Dinner at Wieliczka Salt Mine

± 9 PM departure from Wieliczka Salt Mine to Kraków (arrival **± 10 PM**)