

Палеоботанический онлайн семинар 2021

Палеоботаническая комиссия РАН



Бабий Камень, *Glassozamites kryštofovichii* Bryn. et Rádocz.

Дорогие коллеги!

Следующее заседание палеоботанического семинара состоится **24 сентября в 15.00.**

Подключиться можно по ссылке: <https://zoom.us/j/9104791704> Идентификатор конференции: 910 479 1704

Будет представлен доклад Evelyn Kustatscher и Hendrik Nowak «**Botanical affinities of spores and pollen from the Triassic of the Southern Alps**».

Мы будем рады всех вновь увидеть на нашем семинаре!

С наилучшими пожеланиями, Наталья Завьялова

Botanical affinities of spores and pollen from the Triassic of the Southern Alps

Evelyn Kustatscher & Hendrik Nowak

Museum of Nature South Tyrol, Bindergasse/Via Bottai 1, 39100 Bozen/Bolzano, Italy

Spores and pollen are produced in large numbers by plants and distributed by wind, water or animals up to thousands of kilometers away from the source area. Due to their high number (thousands in each sporangium), small size (20–200 μm) and high preservation potential (chemically resistant wall), they are particularly suitable to reconstruct past environments and climate. This works very well in relatively young sediments containing spores/pollen of still living plants or pollen of angiosperms. However, the older the rocks, the higher the percentage of spores and pollen originating from extinct plants, and therefore with unknown biological affinity. In order to reconstruct the botanical affinity, it is necessary to identify the original plant, and in particular the corresponding reproductive organs, whether gymnosperm cones, lycopphyte or equisetophyte strobili, fertile leaves of various groups of ferns, flowers of angiosperms, etc. Finally, not all organs were mature at the time of burial, and therefore do not always contain fully developed microspores.

In the Southern Alps, there are a number of fossiliferous localities (Kühwiesenkopf/Monte Prá della Vacca, Piz da Peres, Rifugio Dibona, Dogna, Recorao) with fossil plants from the Middle and Late Triassic in an exceptionally well-preserved state of conservation. Dozens of different species of horsetails, lycopphytes, ferns, seed ferns, cycads and conifers were found, always containing vegetative organs (stems, branches, leaves) but often also with the presence of male and female reproductive organs. Micro- and megaspores have been found in situ in sporangia of the equisetophyte *Equisetites mougeotii*, as well as the lycopphytes *Selaginellites* and *Isoetites*. Several fertile fronds of possibly osmundaceous ferns (*Gordonopteris lorigae*, *Scolopendrites grauvogelii*, *S. scolopendrioides* and *Anomopteris mougeotii*) have yielded isospores. Cones attached to a well-preserved conifer shoot assignable to *Voltzia recubariensis* yielded bisaccate pollen. The detailed study of these reproductive organs permits to identify the palaeobotanical affinity of a considerable number of spores and pollen types previously known only dispersed in the sediment. These findings also make it possible to identify intraspecific variability within individual sporangia, as well as common traits of related taxa.