Палеоботанический онлайн семинар 2023

Палеоботаническая комиссия РАН

Дорогие коллеги!

Следующее заседание состоится **20 апреля**, в четверг, в **15.00. Л.Б.Головнева** представит доклад на тему «**Evolution and phytogeographical differentiation of the Late Cretaceous floras of the Okhotsk-Chukotka volcanogenic belt».** Тезисы доклада – на второй странице пдф-версии этого объявления. Подключиться можно по ссылке https://zoom.us/j/9825956451 Пожалуйста, в своем профиле в zoom указывайте фамилию и имя.

Позднее весной мы надеемся прослушать следующие доклады (формулировки тем предварительные): А.В.Степанова «К вопросу о мумифицированных древесинах», Е.М.Бурканова и А.В.Гулина «Волчья Грива: местонахождение мамонтовой фауны и место охоты древнего человека с точки зрения палинолога».
Мы будем рады всех вновь увидеть на нашем семинаре!

С наилучшими пожеланиями, Наталья Завьялова

P.S. Записи прошлых лекций можно посмотреть на нашем канале
https://www.youtube.com/@paleobotany_seminar

Evolution and phytogeographical differentiation of the Late Cretaceous floras of the Okhotsk-Chukotka volcanogenic belt

Lina Golovneva

Komarov Botanical Institute, Russian Academy of Sciences, St. Petersburg, Russia

e-mail of the corresponding author: golovneva@binran.ru

The Cretaceous Okhotsk-Chukotka volcanic belt (OCVB) is a large volcanic province of Northeastern Eurasia related to active continental margin. It extends from the western coast of the Sea of Okhotsk to the east of the Chukchi Peninsula (3200 km long). The total thickness of volcanic deposits ranges between 2 and 4 km. The time of active eruptions is estimated from the Albian up to Campanian, but the greatest part of volcanic pile seems to be accumulated between the Turonian and Campanian. Volcanic rocks of the OCVB comprise lavas (basalts, andesites, rhyolites, and ignimbrites) and pyroclastic interlayers, which have been formed in a continental environment. Ash-fall tuff deposits contain numerous localities of fossil plants. The Cretaceous mountain floras were significantly distinct from contemporaneous floras of adjacent coastal lowland, which were distributed from the eastern (sea-side) margin of the volcanic belt. They are characterized by a predominance of conifers, extremely low content of angiosperms, large number of Early Cretaceous relicts (some ferns, ginkgoaleans, czekanowskialeans, and cycadophytes), and by high endemism.

The territory of OCVB is assigned to the Mountain Okhotsk-Chukotka province of the Siberian-Canadian palaeofloristic Region. In spite of the virtually total absence of angiosperms, taxonomic evolution did not stop in mountain areas. There are many newly formed species and genera among ferns, cycadophytes and conifers. The majority of these taxa had narrow geographic ranges within OCVB. Due to the high endemism of local floras, the territory of this mountain volcanic belt was characterized by very high phytochorological differentiation during the Late Cretaceous. The Mountain Okhotsk-Chukotka province is subdivided into four subprovinces: the Chukotka, the Penzhina, the Okhotsk and the Ul'ya subprovinces.

The development of the Late Cretaceous floras of the Okhotsk-Chukotka volcanic belt took place in three stages: the Arman stage (Turonian-Coniacian), the Chaun stage (Coniacian) and the Ola stage (Santonian–early Campanian). The processes of formation of endemic taxa of conifers among Taxodiaceae and Pinaceae, which formed new types of vegetation in the upper mountain zones, are the main florogenesis direction of the Okhotsk-Chukotka volcanic belt. The number of angiosperm species in the Okhotsk-Chukotka volcanic belt flora reflects primarily the altitude and deposition environment.