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X ЧТЕНИЯ ПАМЯТИ А. Н. КРИШТОФОВИЧА

23–24 СЕНТЯБРЯ

XIX NECLIME MEETING

25–27 SEPTEMBER

NECLIME

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ПРОГРАММА И ТЕЗИСЫ
X Чтения памяти А. Н. Криштофовича, Санкт-Петербург, 23–24 сентября, 2019

Чтения памяти А. Н. Криштофовича (1885-1953), выдающегося российского и советского палеоботаника, основателя отдела палеоботаники в Ботаническом институте им. В. Л. Комарова РАН («Криштофовичевские чтения") были основаны решением Президиума Всесоюзного ботанического общества в апреле 1984 года. В столетний юбилей А. Н. Криштофовича 26 ноября 1985 года состоялись первые чтения. Научная программа X чтений состоит из секционных докладов и постерной секции. В докладах будут освещены наиболее важные и интересные открытия в эволюции, экологии, систематике, анатомии и биостратиграфии ископаемых растений. Помимо докладчиков в конференции примут участие коллеги ботаники и геоботаники, студенты и аспиранты профильных кафедр.

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PROGRAM AND ABSTRACTS
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Organizing committee: Torsten Utescher, Angela Bruch, Svetlana Popova, Dmitry Gromyko.

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TAPHONOMY AND PALEOECOLOGY OF ANGIOSPERM DOMINATED HERBACEOUS COMMUNITY FROM THE EARLY – MIDDLE ALBIAN OF PRIMORYE

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An extraordinarily well-preserved autochthonous angiosperm herbaceous community was discovered from the Lower Cretaceous deposits of the Frentsevka Formation, southern Primorye, Far East of Russia. The locality Bolshoy Kuvshin is situated on the coast of the Ussuri Bay on the Bolshoy Kuvshin Cape near the town of Bolshoy Kamen. Deposits of the Frentsevka Formation near the Bolshoy Kuvshin Cape are represented by alluvial-lacustrine floodplain facies intercalated with coarse-grained sandstones and conglomerates, representing deposits of braided rivers flowing down from the upland where is now located the Ussuri Bay. The plant-bearing layers were determined to be early–middle Albian on the basis of marine mollusks and palynological data.

The angiosperm assemblage includes *Achaenocarpites capitellatus* Krassilov et Volynets, *Ternaricarpites floribundus* Krassilov et Volynets, *Jixia pinnatipartita* S.X.Guo et G.Sun, *Asiatifolium elegans* G.Sun, S.X.Guo et Shao and several new undescribed species. The angiosperm were accompanied by the ferns (*Onychiopsis psilotoides*, *Birisia* sp.), which are represented by almost entire young plants. The majority of specimens are represented by fragments of branching stems with attached leaves or fruits or by almost complete plants with roots. Plants were small (10–30 cm high) and very delicate. Their complete preservation in rather coarse sediment indicates the absence of long water transport. They were deposited *in situ* or very close to their original location. Plant-bearing layers are about 10–25 cm thick and represented by fine-grained non-stratified sandstone. The plant remains are often folded, rolled and cross bedding planes. The fern *Onychiopsis psilotoides* is represented by almost complete, but small young plants. This implies that the fern-angiosperm herbaceous community was a pioneer, reflecting the early succession stage and adapted to colonize fresh sediments in periodically flooded areas. The locality Bolshoy Kuvshin can be considered as autochthonous, reflecting the vegetation which occupied low flat plains between river channels and was buried during several strong flooding events. Conifers and other woody plants were perhaps excluded from this environment by periodic flood events, low drainage, and by the unstable groundwater level. Possibly this plant can have formed thickets on levees and other elevated parts of a floodplain.

The locality Bolshoy Kuvshin, containing abundant remains of several herbaceous angiosperm species, is significantly different from other early – middle Albian angiosperm sites, where the angiosperm can be diverse and well-preserved, but their remains occur rarely and irregularly. Our data support Hickey and Doyle's (1977) interpretation of early angiosperms as riparian weeds. They also show that early angiosperm preferred open wet fern communities, inhabited periodically flooded river valleys and coastal plains. Such environments were favorable for appearance of different aquatic and semiaquatic life forms, which are so numerous among the early angiosperms.

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