

## UPPER PERMIAN SUB-ANGARIAN PTERIDOSPERMS AND THEIR STRATIGRAPHIC ROLE

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Upper Permian pteridosperms from the Sub-Angarian phytogeographic area are represented by abundant *Brongniartites*, *Compsopteris*, *Callipteris*, *Odontopteris*, *Psygmodium*, *Zamipteris*, *Phaphidopteris*, and *Tatarina*. Leaves of the last two genera had dense, well preserved cuticles. Detailed microstructural study of *Phylladoderma* permitted the recognition of numerous species of great biostratigraphic importance for the Upper Permian sedimentary basin of the East European Platform. Provincial zones *Phylladoderma* (*Phylladoderma*) *spinosum*, *Phylladoderma* (*Phylladoderma*) *sentjakensis*, *Phylladoderma* (*Phylladoderma*) *meridionalis*, *Phylladoderma* (*Phylladoderma*) *volgensis*, *Phylladoderma* (*Phylladoderma*) *tcheremuchka*, *Phylladoderma* (*Aequistomia*) *rastorguevii*, *Phylladoderma* (*Aequistomia*) *trichophora*, *Phylladoderma* (*Aequistomia*) *aequalis*, *Phylladoderma* (*Aequistomia*) *tatarica* are characterized by six different floral complexes. Some elements of phylladodermic flora can be found in the Sub-Angarian and Angarian areas of the Angarian kingdom, and in the Late Permian of northwest China.

Representatives of *Tatarina* become more abundant by the end of Late Permian time at the basins of the Severnaya Dvina, Vyatka and Volga rivers. Epidermic structure of various *Tatarina* species permits the recognition of two provincial zones: *Tatarina olferievii* and *Tatarina pinnata* - *Tatarina mira*. Some elements of *Tatarina* are found in Zechstein floras of Germany and Late Permian floras of Mongolia and China.