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## HOLOCENE AND RECENT PEAT ACCUMULATION RATES IN WEST SIBERIA

The experience of the taiga vegetative cover study in West Siberia shows that nowadays peat accumulation is registered almost at all relief depressions. Autochthonous swamping way, which was prevalent in Holocene, has the smallest part nowadays. Prevailing process is allochthonous swamping by radial growth. Scales assessment of such swamping is various. As a base of calculations of bog radial grows rate one can use peat depth increment. The important place is assigned to peat deposits radiocarbon dating. At given article we represent radiocarbon dates generalization of more than 70 peat profiles in Northern Eurasia published in literature to build generalized curves of peat accumulation rate in Holocene.

All profiles were divided into 6 groups: 1) 20 profiles of peat from European southern taiga, broad-leaf forests and forest-steppe; 2) 13 peat profiles of European middle taiga; 3) 8 peat profiles from European northern taiga, forest-tundra and tundra; 4) 10 peat profiles from West Siberian southern taiga and forest-steppe; 5) 11 peat profiles of West Siberian middle and northern taiga; 6) 8 peat profiles from northern taiga, forest-tundra and tundra. On mentioned zonal and regional profile groups the rows of average peat accumulation rate change have been built.

In spite of differences, the rows of average peat accumulation rate change on zonal and regional groups reveal sufficiently many common features. The recent peat accumulation rate is less in forest-tundra and northern taiga than in forest-steppe and southern taiga. It is observed both in Europe and Siberia. Siberian middle taiga peatlands take an interim position. Northern European peatlands are the exception due Karelian peatlands where peat accumulation rates are higher on data G.E.Elina (1981; 1995).

Common for all southern peatlands feature is increment of peat accumulation rate last 8,000 years (from 0.3-0.4 mm/year to 0.6-0.9 mm/year). On the contrary, northern peatlands are characterized by peat accumulation rate lowering (from 0.9 and more to 0.1-0.2 mm/year).

It was distinguished two levels of peat accumulation rate variations: variations by the first order with duration about 3,000-4,000 years are the highest, and variations by the second order with duration about 1,500 years are weaker. Variations by the first order show that peat accumulation rate change directions in forest-tundra and forest-steppe were opposite. For southern peatlands both in Europe and Siberia three phases of peat accumulation rate rise have been singled out: 7,000-5,500 years ago (0.6-0.7 mm/year), 4,500-3,000 years ago (0.5-0.6 mm/year) and recent period beginning with 1,500-2,000 years ago (0.6-0.9 mm/year). Peat

growth decrease phases were in the Holocene climatic optima (6,000-4,500 years ago - 0.4-0.5 mm/year and 3,500-1,500 years ago - 0.4-0.6 mm/year).

Forest-tundra peatlands had the local maximum of growth in the climatic optimum (0.3-0.4 mm/year). Intense peat accumulation at the north was observed 9,000-7,000 years ago (in Siberia 0.9 mm/year and more). At the European tundra and forest-tundra peat accumulation splash was also about 3,000-1,500 years ago (0.3-0.4 mm/year). At the Siberian North peat accumulation rate rise was not observed at this period.

Orientating the climatic reconstruction made by V.S.Volkova (1982) we consider that peatland growth decreased at the south and increased at the north during climate warm phases. At the south it occurred climate aridization at these periods, thus at the north total moisture rose. During climate cooling phases peatland growth rates increased at the south and decreased at the north. It is proved by mutual correlations of peat growth and climatic parameters. The positive response on climate warming and moisturizing is registered for northern peatlands. Correlation coefficients are 0.31 and 0.28 with 400 and 500 years lateness correspondingly for temperature and precipitation. For southern peatlands the same coefficients are -0.36 and -0.56 with 80 and 1,080 years lateness for temperature and precipitation correspondingly. Revealed lateness determines that peat accumulation responds upon climatic changes, accelerating or delaying in corresponding cold or warm periods, reaching minimum and maximum only some time later after climatic extreme.

Obtained curves of peat accumulation rates in West Siberia are used for evaluating bog radial growth rates and paleoecological reconstructions.