

CONCRETE FLORA OF THE CHINKE AND SOBOL-YURYAGE RIVER BASINS (UST-LENSKY NATURE RESERVE, YAKUTIA)

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The article provides information on the concrete (particular) flora of the previously unstudied area of the Ust-Lensky State Nature Reserve, located near the mouths of the right tributaries of the lower Lena River, namely the Chinke and Sobol-Yurjage rivers (Arctic Yakutia). The research area is located on the northern spurs of the Kharaulakh Range with gentle mountain peaks up to 200–300 m high.

The vegetation cover forms altitudinal belts, with tundra and epilithic-lichen one prevailing everywhere. In the lower reaches of the Chinke River, the belt of subalpine (podgoltsy) shrubs is fragmentary, represented by alder and by trailing, clump, and less often tree-like larches. Along the banks of the Lena River, 5–6 km above the mouth of the Chinke River, on the western slopes, a forest vegetation belt of larch woodlands is expressed, which reaches a height up to 90 m a. s. l., and has a width of 30–50 m, and below passes into the Lena coastal cliff. In the estuarine part of the Chinke and Sobol-Yuryage rivers, a complex of valley vegetation is well-expressed, which at a low altitude (about 5 m above the valley level) passes into the tundra belt. The belt of epilithic-lichen communities, which is dominated by rock screes and places with sparse vascular plants or small areas of tundra vegetation, is usually distributed at an altitude of more than 200 m a. s. l.

In the concrete flora, 314 species of 48 families and 132 genera were identified. The leading roles in the flora are taken by the Poaceae family – 40 species, Cruciferae (Brassicaceae) – 33, Asteraceae – 26, Cyperaceae and Caryophyllaceae – 20 species each, Ranunculaceae and Salicaceae – 18 species each, Saxifragaceae – 16, Rosaceae – 14, Scrophulariaceae – 12. These ten families comprise 217 species, or 69% of the concrete flora. In the genera spectrum, the leading position is occupied by *Salix* – 18 species, *Draba* and *Saxifraga* – 15 each, *Carex* – 11, *Poa* and *Pedicularis* – 10 each, *Ranunculus* and *Papaver* – 8 each, *Stellaria* – 7, *Potentilla* and *Taraxacum* – 6 each, *Eriophorum* – 5. The leading 10 genera combine 108 species – 34%. The flora includes 3 species listed in the Red Data Book of the Russian Federation – *Rhodiola rosea* (a rare species of resource importance), *Myosotis czekanowskii* (a species declining in number) and *Castilleja arctica* (a rare species endemic to Russia) and 7 species protected by the Red Data Book of the Republic of Sakha (Yakutia) – *Phlojodicarpus villosus* (a species whose populations are declining as a result of excessive human use); *Poa filiculmis* and *Papaver czekanowskii* (rare species with a significant range, occurring sporadically and in small numbers within Yakutia); *Hyalopoa lanatiflora*, *Papaver leucotrichum*, *P. paucistaminum* and *Parnassia kotze-*

buei (rare species with a limited range, part of which is located on the territory of Yakutia). The species status and expediency of preserving *Myosotis czekanowskii* in the Red Data Books is questioned.

For a significant number of species, the extreme northern limit of their distribution in the lower reaches of the Lena River was revealed. Among the most noteworthy finds, there is *Parnassia kotzebuei*, the species which was not recorded previously in Yakutia west of the lower Indigirka River. The diversity of vascular plants in this area, determined by the standard flora method, is estimated as 232–241 taxa/km².

Keywords: concrete flora, standard flora, lower reaches of the Lena River, vascular plants, species, biodiversity

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