

TYPES AND VARIETIES OF *PINUS PUMILA* (PINACEAE) ECOBIOMORPHES IN THE DERIVED STONE-BIRCH FORESTS OF THE MAGADAN REGION

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Abstract. *Background.* The study of the plants life form makes it possible to objectively assess the species significance in the vital activity of the plant community. In this respect, dwarf pine (*Pinus pumila* (Pall.) Regel) is of great interest, as it is the main species in the undergrowth of forests of the Extreme North-east of Russia. The goal of research is to explore the peculiarities of the formation of dwarf pine ecobiomorphs in the stone-birch-forests of the Northern Coast of the Sea of Okhotsk as an example of the species biomorphological adaptation to different ecological-cenotic conditions. *Materials and methods.* The studies were carried out on the southern macroslope of the Hasyn ridge in the Coastal-Okhotsk floristic region of the Magadan Region. The objects of research are the phytocenoses of four forest types of the stone-birch group of associations (*Betuleta lanata pumila-pinulosa*) of middle and overripe age, which compose ecological and age pairs. In them, according to generally accepted methods of examining forest types, experimental plots were established, where forestry-geobotanical studies were carried out, the phytocenotic structure was explored, and the forms of growth and development of the model bushes were described in detail. *Results.* A brief history of the biomorphological study of dwarf pine was given. The formation and transformation laws of the species forms in dry and wet ecotopes for 20 years were studied. The previously unknown life features of the seasonal and age development of the dwarf pine were noted. *Conclusions.* Five main (bushy) and one rare (semi-tree-like) ecobiomorphs of dwarf pine and two kinds of its cup-shaped ecobiomorph were identified. The light factor and micro-relief play decisive role in the formation of the dwarf pine ecobiomorphs. The typical ecobiomorphs of the species were defined: at a young age (up to 50 years) – compact roundish bush, in 50–70 years old – classic cup-shaped bush. For bushes older than 80 years the creeping ecobiomorph is characteristic, under the forest canopy – creeping with trunks, buried in the forest floor. In the most developed specimens of 70-80-year-old dwarf pine, secondary growth in terminal shoots was noted in years with abnormally warm autumn, while faults of skeletal branches-trunks by the fusion lines at the bush base – during periods of intense snowmelt in spring.

Key words: life form, ecobiomorphs, *Pinus pumila*, derived stone-birch, coenotic structure, *Betula lanata*, Northern Coast of the Sea of Okhotsk.