

THE STRUCTURE OF THE CROWNS OF INDIVIDUALS OF *S. EUXINA* I.V. BELYAEVA (SALICACEAE): MODULAR ELEMENTS, GENDER DIFFERENCES

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Abstract. Boreal species of willows have not yet been sufficiently investigated from the standpoint of the structural and functional organization of the crowns of adult individuals. The article deals with the structure of modular elements of the *S. euxina* crown. Three traits are used in the basis of the classification of shoots and shoot systems of the crown. They are: the length of the internodes that make up the shoot, the age of the shoot, the presence of branching. The following classification of modular elements was used in the present article: metamer, monaxonic shoot, three-year shoot system (TSS), branch from the trunk, a crown in general. In this case TSS is considered as an architectural module. The study of three-year shoot systems was carried out separately in female and male individuals. It allowed identifying gender differences in the structural organization of their crowns. Individuals of *S. euxina* of various life forms develop in the crowns vegetative shoots of three types: short, medium and long. Moreover, shoots with medium-length play the greatest role in the organization of crowns. Individuals of life forms of single, small and multi-trunk trees distinguish 8 main variants of vegetative shoots and individuals of life forms such as facultative elfin wood distinguish 5 variants. As part of the annual vegetative shoot, 8 variants of metamers are distinguished. They differ structurally and functionally. As the main structural unit of the shoot system, a three-year shoot system (TSS) is identified, and on its basis an architectural module with 3 traits is singled out. In the composition of all model branches of *S. euxina*, TSS type 1:1 prevails in males, and TSS type 1:2 prevails in females. There are 1.4 times more assimilating shoots in the crown of female individuals of *S. euxina* than in males. This indicates that females are more branched compared to males and their crowns are denser. Assimilating annual shoots sometimes develop from inactive buds (3.9 %) in *S. euxina*.

Keywords: *Salix euxina*, life forms, crown, shoots, metamers, three-year shoot system, architectural module

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