

Original article

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Anatomical Features of the Structure of Vegetative Organs of Arctic Bramble (*Rubus arcticus* L.) in the Conditions of the Arboretum named after R.I. Schroeder

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Abstract. The results of the anatomical study of the roots, stems and leaves of arctic bramble (*Rubus arcticus* L.). The object of the study is the roots and shoots of 2 year-old introduced plants of *R. arcticus* growing in the Arboretum named after R.I. Schroeder (Moscow, Russia). The root of *R. arcticus* is characterized by a secondary anatomical structure with a clear differentiation of a number of anatomical and topographic zones: integumentary tissue, secondary bark and central cylinder. A distinctive feature of the structure of plant roots is the diffuse-vascular type of wood. The anatomical structure of the *R. arcticus* stem was not uniform along its entire length: in the upper part the stem was characterized by a fascicular type of structure, while in the middle and basal parts a transition from a fascicular structure to a non-fascicular one was found, which ultimately allowed us to classify it as a transitional type. The leaves of *R. arcticus* are dorsoventral, hypostomatic, the stomatal apparatus is anomocytic. The presence of the main parenchyma with 5 collateral bundles located in the petiole of *R. arcticus* was shown. The established marker anatomical and diagnostic features of the roots, stems and leaves of *R. arcticus* plants can be used in the identification and assessment of the authenticity of plant materials, for compiling anatomical atlases of fruit and berry crops of Russia. The obtained information can be a scientific basis for interspecific identification of representatives of the genus *Rubus* and for resolving controversial issues of systematics and taxonomy of the Rosaceae family.

Key words: forest berry plants, arctic bramble, morphological structure, root, stem, leaf, anatomical and diagnostic features.

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