Ascorbic Acid Polymorphism of *Rosa L.* in Middle Siberia

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Natural populations of two species *Rosa acicularis Lindl.* and *Rosa majalis Herrm.* have been chosen. The populations were chosen in the southern (Krasnoyarsk) and northern (Turukhansk) regions of Middle Siberia. The quantitative content of the ascorbic acid has been analysed in their fruit hypanthia (for 30 specimen in every population). Its average content for the northern population of *R. acicularis* was 1.55% (for dried mass). Values vary from 1.26 to 2.3% (the variability coefficient C.V. = 14.19%). The plants of the southern population reveal the increased average value for the population - 2.49% and also distinct polymorphism in this relation. For example, a group of 7 species the ascorbic acid content was significantly greater than for the other plants in the population. The plants of the first group belong to the well-discriminated form found within the species. Their morphological distinctions consist in the extended (its average length is 236 mm) and spindle-like form of the hypanthium (the average length for a typical form of a "fruit" is 173 mm) and decreased number of nuts, in one hypanthium (9.5 for the first and 12.9 for the second respectively).

Our view is that this peculiarity is result of accumulation of free ascorbic acid in the hypanthium with decreased number of seeds owing to its underutilization by morphogenesis of seeds. Admittedly it is typical only of morphologically normal plants producing small number of seeds (insidespecies forms). But high content of ascorbic acid is not characteristic of plants producing small number of seeds as a result of their general depression or affection of insects.

Chemical polymorphysm is not typical of the plants from the southern population *R. majalis* (C.V. = 8.59%) and the average content ascorbic acid is 1.63%. This population is characterized by high morphological homogeneity.

The investigations display the tendency for *R. acicularis* in the region of Middle Siberia to increase the content of ascorbic acid in hypanthya. The increase occurs from the north to the south of the area. The morphostructure of natural populations becomes more complicated in the same direction. The species with fruits of the narrow form more frequently happen in comfortable climatic conditions favourable for the described species. There is also an close correlation established by us between chemical and morphological polymorphism. This connection is only slightly displayed for *R. majalis*.