

Continuing a search for carotenoid plants, we have investigated the epigeal part of *Orobanche owerinii* G. Beck (family *Orobanchaceae*) [1] growing in the broad-leaved forests of Kavkazskie Mineral'nye Vody and parasitizing the hypogeal organs of *Fraxinus*. The raw material was collected in the flowering period in July, 1983.

The carotenoids were extracted from the freshly collected raw material (2.5 g) with n-hexane and petroleum ether [2], the solvents were driven off at room temperature, and the residue was chromatographed in a thin unfixed layer of MgO in the solvent system petroleum ether-benzene-acetone (16:3:1) [3, 4], and also in an unfixed layer of alumina (activity grade II) in the diethyl ether-hexane (1:3) system (system 2). As a result, not less than seven carotenoids were detected. For the preparative separation of the carotenoids we used an unfixed layer of alumina in system 2. The individual zones were scraped off and the carotenoids were eluted with ethanol. The eluates were used for chromatography with markers and for UV spectroscopy.

As a result we established the presence in the broomrape carotenoids of: violaxanthin (I), which formed a pale yellow zone with R_f 0.08, $\lambda_{\text{max}}^{\text{C}_2\text{H}_5\text{OH}}$ 9.421; 0.443; 0.472 nm; auroxanthin (II), forming a bright orange zone with R_f 0.16, $\lambda_{\text{max}}^{\text{C}_2\text{H}_5\text{OH}}$ 0.380; 0.402; 0.432 nm; and the ester of violaxanthin and palmitic acid (III), forming a pale yellow zone with R_f 0.22, $\lambda_{\text{max}}^{\text{C}_2\text{H}_5\text{OH}}$ 0.421; 0.442; 0.471 nm. In addition to the carotenoids mentioned, the presence of α - and β -carotenes in broomrape was established by the chromatographic (R_f 0.67 and 0.78, respectively).

The investigation of the broomrape carotenoids is continuing.

LITERATURE CITED

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