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ABSTRACTS

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Ecology, distribution and protection of the endemo-relict serpentinophyte *Halacsya sendtneri* (Boiss.) Dörfl.

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The monotypic genus *Halacsya* Dörfl. is represented by the Balkan endemo-relict species *Halacsya sendtneri* (Boiss.) Dörfl. disjunctly distributed on the serpentines of N and NE Bosnia, W Serbia and NE Albania. This plant is restricted to open serpentinized rocky grounds at altitudes of 190–1500 m only. It is the most significant edificatory species of several serpentine communities from Halacsyetalia sendtneri H. Ritter-Studnicka 1970 order.

The isolation of *H. sendtneri* in the system of Boraginaceae G. Don family is the cause of its relictness, which is reflected in its specific habitat: the chamaephytic caespitose life-form (Ch suffr.-caesp.) with tap and ramified roots and narrow lanceolate scleromorphic leaves covered with thick cuticle and waxy sheaths. The leaves are amphistomatic; the stomata are very small and sunk. The mesophyll is isobilateral and differentiated into 5-6 layers composed of short cylindrical cells. Between compact layers of bilaterally situated palisade parenchyma there is a 2-layer spongy tissue. Frequently, in the epidermal cells there is a dense content, which is also the case in other serpentinophytes.

Morpho-physiological characteristics of *H. sendtneri* reflect its evolutionary adaptation to specific microclimatic and edaphic conditions (water deficit and intensive radiation, ultra-alkaline soil, Mg-content higher than that of Ca and increased concentration of heavy metals).

The species *H. sendtneri* is listed in the IUCN Red Data Book of vascular flora of Serbia, as threatened rare (R) or, in some habitats, as vulnerable (V) category.

The stenoendemism of high-mountain flora of Yugoslavia (Serbia and Montenegro)

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Among the numerous mountain endemics in the Balkans, the local ones, the distribution of which is restricted only to one massif or geographically neighbouring mountains, pose a peculiar and very interesting geobotanical problem. The analysis was concerned with over 70 local endemic taxa distributed in the mountains of Serbia and Montenegro. The age of each endemic taxon was established according to Turill's division (1927). The number of local endemics in each studied mountain is correlated with height, steepness, geological diversity and degree of isolation, as well as the impact of glacial events. It is established that the great and geologically diverse massifs, i.e. Prokletije and Šarplanina, are characterized by the largest number of local endemics compared with the other mountains studied. The presence of both relict and young endemic originating from Tertiary and glacial ancestors indicate that the "nucleus" of high-mountain flora of the central Balkans is very old.