

Botanical-Geographical profile of the limestone massifs and the diversity of the autochthonous calcephilic flora in Samegrelo region (Western Georgia)

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By utilization of field botanical route methods throughout different years, we have studied the diversity of rare and endemic species of calcephyllous flora of Samegrelo limestone massif. The Askhi massif in Samegrelo together with limestone massifs of Migaria, Kvira, Okhachkue and Lebarde represents a significant area for genesis and formation of an autochthonous flora. Existing botanical and botanicalgeographic research findings about the flora of Samegrelo can only confirm this (Альбов, 1893, 1896b, 1896b; Альпер, 1960; Колаковский, 1958, 1961; Сохадзе Е, 1968). The following geographic elements of the Colchic flora together with different geographic elements (CaucAs.Min., West Asian, Mediterranean, etc) are represented more or less quantity in each vertical belt of Samegrelo: 1. *Buxus colchica*, *Rhamnus imeretina* occur in the mixed deciduous forests; 2. *Abies nordmanniana*, *Rhododendron ponticum*, *Quercus ponticum* can be found in the beech and dark coniferous forest belt; large subalpine herbaceous plants are distinguished by endemic species like *Inula magnifica*, *Cirsium oblogifolium*, *Heracleum mantegazzianum*, *Lilium kesselringianum* as well as other species of high-elevation herbaceous plants, 50% of which are common endemics and sub-endemics of the Caucasus and the Greater Caucasus mountain range. 3. *Betula megrelica*, *B. medwedewii* grow in the broad-leaf forest belt; 4. *Sorbus migarica*, *Arctostaphylos caucasica*, *Rhododendron sochadzeae* are characteristic for the subalpine belt; 5. *Chymysdia agasilloides*, *Kemulariella colchica*, *Potentilla kemulariae*, *Astrantia colchica* and many more can be found in alpine belt. We have made a list of endemic and subendemic calcephytes of different habitats of study area: 1. Limestone cliffs where most representatives of the flora are chasmophytes or plants growing on rock crevices: *Omphalodes lojkae*, *Campanula dzaaku*, *C. fonderwisii*, *Seseli saxicolum*, *Potentilla kemulariae*, *Ranunculus helenae*, *Kemulariella colchica*, *Astrantia colchica*, *Umbellicus oppositifolius* and others. 2. Limestone loose-rocky habitats: *Alboiodoxa elegans*, *Heracleum egrissicum*, *H. calcareum*, *Cyclamen colchicum*, *Daphne pseudosericea*, *Lupinaster polyphyllus*, *Scutellaria helenae*, *Digitalis ciliate*, etc. 3. Limestone meadows: *Gentiana kolakovskii*, *Chymysdia agasilloides*, *Polylophium paniutinii* and many more. 4. Tall-herbaceous plants: *Lilium kesselringianum*, *Heracleum mantegazzianum*, *Inula magnifica*, *Cirsium oblogifolium* and others. Some calcephytes species (*Lupinaster polyphyllus*, *Polylophium paniutinii*, *Campanula* spp., *Cyclamen colchicum*, *Ranunculus helenae*, *Astrantia colchica*) may occur in all the above-mentioned habitats and that can be explained by the plants' adaptation capacity which was generated for a very long time. The amplitude of height distribution of calcephyllous flora has a peculiar characteristic. This is caused by the following circumstances: sums of annual precipitation of karst high mountain terrain is quite high and is equal to 1600-2100 mm. Here the snow cover is accumulated in karst cases for a long time and ensures permanent dampening of different habitants. Due to this, the Colchian dendroflora and calcephyllous flora in general can be characterized by high amplitude of hypsometer distribution.