

VASCULAR FLORA OF THE KELEMEN (CALIMANI) MTS ON THE SIDE OF THE MAROS (MURES) RIVER DRAINAGE AREA

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This paper sums up the existing floristical data (list of species), and characteristics about the territory of the Kelemen (Calimani) Mts on side of the river Maros (Mures) drainage area, including also the river defile between Toplica and Déda. The results of a ten years work are completed with former existing data from the territory.

Key words: Kelemen (Calimani) Mts, Romania, list of species, critical review

INTRODUCTION

At present there is no comprehensive study about the flora of the Kelemen Mts in contrast to the other East Carpathian massifs. Why researchers did not present too much interest for this massif until now may be attributed to the following reasons: the neighbouring massifs Máramaros (Maramures), Radna (Rodneï) and Beszterce (Bistrita) floristically were more promising, and this part of the Kelemen Mts is hardly accessible.

In this paper, that summarises the results of a ten years work, I try to process former existing data with my owns.

In the study of great importance I concentrated to the flora of the Maros defile between Toplica and Déda, which is interesting for its geographical position: situated between the Kelemen and Görgényi (Gurghiu) massifs, it is the biggest cross-section through the Neogenic volcanic chain of the Eastern Carpathians. Its climate has specific montane characteristics, although it lies only at 600 m (submontane region). On the east end the defile is bordering the Gyergyói (Gheorgheni) col, on the west end the Transsylvanian basin. Probably, that is why there are important differences between the flora of the upper and lower part, although the heights of the sea level decrease along the defile only 50 m.

Geographical, natural factors

The studied territory includes the southern part of the Kelemen Mts side of the Maros river drainage area.

Borders: On north the margin of the volcanic caldera (the ridge), on south the river flow, on east the Mermezeu valley, along the Zebrac clearing, Cica, Cocos, Dragus volcanic plateau and Retitis (2021 m). The Calimanel brook and its drainage area was not included, while this does not inflow on the territory of the defile. On west the Bistra brook, along the Stejii, Moldoveanca plateau until the mountain ridge (Bistricioara top 1990 m).

Geologically the territory is characterised by andesitic bedrock: volcano-sedimentary formations, and lava flows with many kinds of amphibolitic and piroxenic variations. Geomorphologically there are three distinctive parts: central caldera and volcanic cones (the highest, Mt Pietrosz – 2102 m), volcanic plateau (formed by lava flows), separated by watersheds (sedimentary zone). The petrographic diversity and the hydroclimatic factors gave rise to a varied surface.

Climatic characteristics of the territory

The main climatic characteristics are demonstrated in the following three Walthers-diagrams (Figs 1a–c). Temperature and rainfall averages are also indicated.

Population, economic factors

The whole territory is very sparsely populated: 200–400 inhabitants/km². Industrialised territories are small only quarries (Mesterháza), mines (Negoiul Romanesc), waterpower station and its accompanying buildings (Ratosnya, Andrásataka). Road-ways are only along the river, and to the Ratosnya barrage. In the other brook valleys there are forestry roads, and shepherd's paths.

The main occupation of the inhabitants is forestry-, and grazing-works. Agriculture is only house-holding. Disturbance factors: intensive grazing, tourism and built of the barrage lake and hydroelectric power stations.

Nature protection: The first protected area was the surroundings of lake Iezer. From October 1995 the territory of the defile was declared Landscape Protection Area. There is also a project for creating a National Park on the upper montane and alpine zone.

The history of floristical researches

The first floristical notes date back to the last century. In works and herbaria of prominent scientists like J. C. BAUMGARTEN, F. PORCIUS, V. JANKA, C. G. T. KOTSCHY and P. J. F. SCHUR there are several data concerning the flora of the Kelemen Mts.

M. FUSS published in 1866 "Flora Transsilvaniae excursoria" in which he made a critical process of the existing data, completing with his owns. He mentioned about 30 species from the territory of the Kelemen Mts, e.g. *Rhodiola rosea*, *Arabis coerulea*, *Valeriana tripteris*, *Carex atrata*, *Coeloglossum viride*,

and the defile, e.g. *Eriophorum latifolium*, *Daphne mezereum*, *Asarum europaeum*, *Ligularia sibirica*, *Scrophularia balbisii*.

In 1879 L. WALZ described 17 new taxa for the flora of the Maros defile, e.g. *Thalictrum lucidum*, *Oenanthe aquatica*, from the rocks *Libanotis montana*, *Cytisus nigricans*. He did not mention *Telekia speciosa* although it is very common along the river flow.

In 1908 F. PAX in his well-known book "Grundzüge der Pflanzenverbreitung in den Karpathen", determined the geobotanical position of the territory, that belongs to "Bistritzer Bezirk". He enumerated several species that characterise this geobotanical district, e.g. *Dianthus superbus*, *Delphinium elatum*, *Arnica*

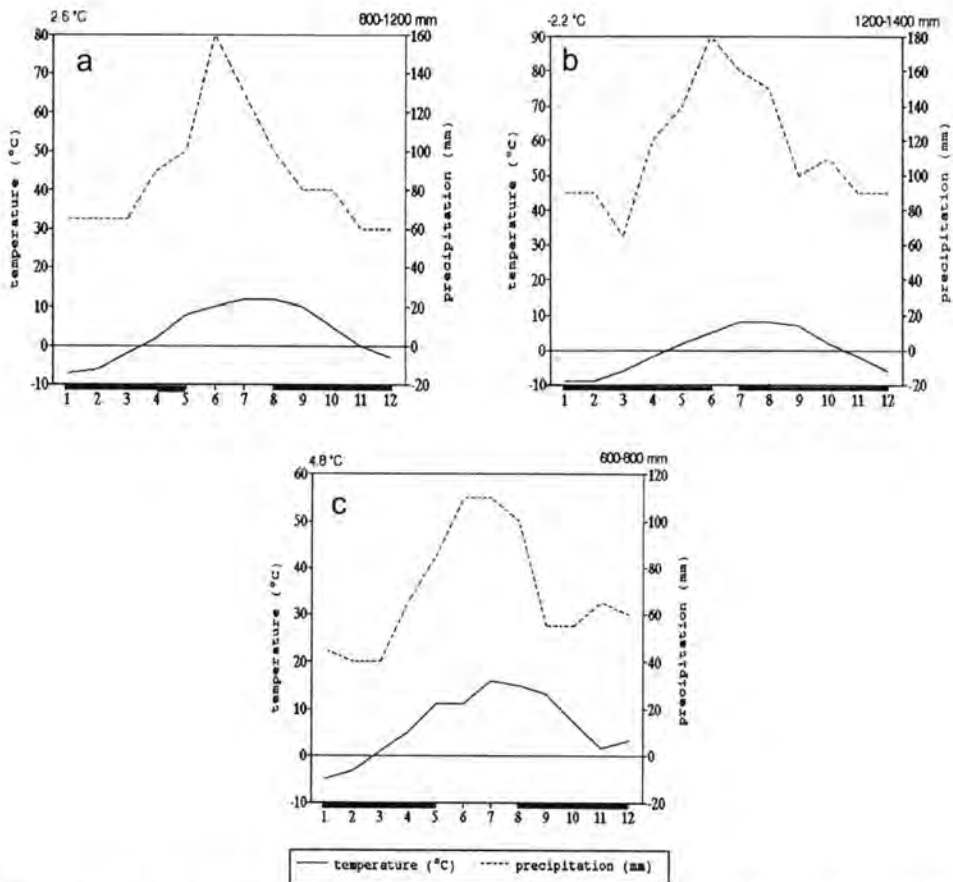


Fig. 1. Three Walther diagrams representing the climatic characteristics of various zones of the Kelemen (Calimani) Mts: a) montane zone, b) subalpine and alpine zones, a) defile. Temperature and precipitation averages are indicated

montana, *Cirsium heterophyllum*, *Melampyrum saxosum* and *Aconitum paniculatum*. Some species spreading from the Eperjes–Kassa line to the South will reach in the Kelemen Mts their southern border, e.g. *Pulmonaria rubra* and *Hieracium transsilvanicum*. Generally, he considered that the flora of the Kelemen Mts is relatively poor. Because he treated altogether the “Bistritzer Alpen” it is not possible to separate data concerning this territory.

There are valorous data in FEKETE and BLATTNY’s book (1913), concerning the area of woody species. In case of many species like *Pinus cembra*, *Rhododendron kotschyi* and *Vaccinium uliginosum* they indicated the exact occurrence. They mentioned the occurrence of *Taxus baccata* in Ilva and Tihuta valleys, declared it as an endangered species. I did not find it already in these parts.

The first detailed description about the Toplica–Déda defile belongs to E. I. NYÁRÁDY from 1933. He characterised the main vegetation formations and enumerated the existing species, e.g. 54 species from woods, 45 species from wet meadows and mires along the river, and more than 80 species from grasslands. The species mentioned by NYÁRÁDY from the defile are existing even today, as they are represented in my collection, too. However, the flora of the territory is more rich.

In the time of the second world war B. ZÓLYOMI had been in the Kelemen Mts, where he studied the peatbog vegetation. He collected the peat moss species and brought them for Á. BOROS for identification, who kept the duplicates. ZÓLYOMI (1941) described a new data for the flora of Romania, *Carex heleonastes* from the Cica plateau. But most of their data disappeared. ZÓLYOMI’s data were included in the big synopsis on the Romanian peatbogs by E. POP (1960).

The eastern part – the mountain ridge – was studied by I. CSÜRÖS. His published the first detailed floristical and vegetation study about the subalpine and alpine zone in 1950. Because he climbed up from the other part, from Beszterce (Bistrita), the data concerning the vegetation of the forest zone have only indicative value. He mentioned about 300 species and 8 coenological relevés among that 2 are concerned with the territory. The collected plants are probably in herbarium of Museum Grigore Antipa, Bucharest. I had no opportunity to study it. Concerning some rare species he did not give the precise locality so these records could not have been confirmed.

New floristical data were published by G. VIDA (1958). He pointed out the existence of *Ranunculus crenatus*, *Salix herbacea*, and a new variety of *Hypochoeris uniflora*.

AL. BELDIE (1967) has a very detailed enumeration about the endemic, subendemic species of the Romanian Carpathians. He did not include, e.g. *Viola dacica*, *Centaurea carpatica*, *Sempervivum marmoreum*, *Senecio papposus* and *Veronica baumgartenii* in the flora of the Kelemen Mts.

The palynology of montane mires from the fields of Déda were studied by DIACONEASA and SUTEU (1980), in which there are also references about the frequency of some characteristic species.

"Vegetatia Romaniei", the most recent book about the vegetation of Romania, was published in 1992. It contains floristical data also from the Kelemen Mts, but these take more time for processing.

Among "Tiscia" monograph series in 1995 appeared a detailed study about the Maros valley. In the chapter, describing the flora and vegetation by C. DRAGULESCU, there are also floristical data concerning the defile.

The "Romanian Flora (Flora RPR)" processes the existing data, but not all of them. There are some species, whose presence in the territory are mentioned by authors and are not included in this big enumeration. Some data from the Flora should be clarified in further studies.

MATERIALS AND METHODS

The conspectus of species is mainly based on proper collection, during the field work beginning from 1984 until the present.

Species were determined by the author. In the time of the university years taxa were supervised by Dr J. GERGELY in the herbarium of the University Babes-Bolyai, Cluj. Later in the 90th uncertain taxa were clarified in the herbarium of the Hungarian Natural History Museum. I thank to prof. Dr L. FELFÖLDY for his precious help in determination of some species of Poaceae and Cyperaceae. To Ms ZS. BUNKE for her useful advice and for guiding me in the herbarium.

The list includes also data from other authors, but only those that could be well-detected. From the "Romanian Flora" are included data that are unambiguous, and refer to this part of the Kelemen Mts.

For determination I used the "Flora RPR resp. RSR Vols I–XIII", and "Magyar Flóra". In case of some uncertain taxa I applied to other monographs and papers also (HEGI 1908–1931, TUTIN *et al.* 1962–1980, WITASEK 1906).

Nomenclature is in accordance with "Flora Europaea".

The list includes beside the taxon name and author the life form, geoelement, localities, frequency data. If it is not a proper collection I mention the author from whom the data originates. New data for the territory are enhanced.

For the better orientation species are arranged in alphabetical order.

Abbreviations

Life forms are in accordance with the RAUNKIAER categories.

Geoelements: arkt-alp – arctic–alpine; kozm – cosmopolitan; Eur – European; EA – Eurasian, (kont – continental, med – spread towards the Mediterranean zone, bor – spread mostly in the boreal zone, mont – montane); K-Eur – central European; cirk-b – circumboreal; Med – Mediterranean; Atl-Med – Atlantic-Mediterranean; Szarm – Sarmatian; Pont – Pontic; Pan – Pannonian; Kárp (end) – Carpathian (endemism); Balk – Balkanic (spread in the Mediterranean and sub-Mediterranean territories of the Balkan peninsula); Kauk – Caucasian; Dák – Dacic; adv – adventive. Flora – Flora RPR, Vols I–XIII.

Gazetteer

Andráspataka – Andreneasa; Bisztra – Bistra; Dédabisztra – Bistra Muresului; Borszék – Borsec, Disznós-tető – Porcului; Drágás – Dragus; Galonya – Galaoaia; Göde – Stancenii; Görgényi – Gurghiu; Istenszéke – Scaun; Jódtelep – Iod; Kelemen – Calimani; Maros – Mures; Mesterháza – Mestera; Marosfő – Izvorul Muresului; Nyágra – Neagra; Palotailva – Lunca Bradului; Pietrosz – Pietros; Rakottyás – Retitis; Ratosnya – Rastolita; Régen – Reghin; Solymok – Soimilor; Szalárd – Salard; Toplica – Toplita.

Main characteristics of the flora, geobotanical position

The list of species includes 866 taxa (species and subspecies) in 95 families (11 pteridophytes, 3 gymnosperms, 73 dicots, 11 monocots). A total of 46 species are new for the territory. There are 6 hybrids from the *Centaurea*, 4 from *Hieracium*, 2 from *Rubus*, 1 from *Carex* and 1 from *Cirsium* genera. Fifty-eight species, cited by other authors, are not confirmed.

The flora of the Maros defile and the southern part of the Kelemen Mts integrates as a whole in the volcanic flora of the Carpathians. Floristically it is less various than the external folded mountains of the Eastern Carpathians. The reason is that uniformity of the bedrock on volcanic massifs give rise to relatively few range of habitats compared to crystalline and sedimentary rocks. The migration of species on the area of the Eastern Carpathians follows a north – south direction, so the flora resemble with the Máramaros, Radna massifs. The Kelemen Mts is the south-eastern border of this migration line, that is why many species frequent in the territory of the Radna, Máramaros, Borszék disappears. While the western part is bordering the Transylvanian basin, on the way out from the defile increase the number of continental, and Mediterranean species. Geobotanically the defile integrates the flora of the Kelemen and Görgényi-Hargita (Gurghiu-Harghita), being situated on the contact line of these two districts. The geoelement composition show a majority of Eurasian, European species with many boreal elements. It is high the number of montane, arctic-alpine elements

demonstrating the properties of the climatic factors. There are 22 Dacic (Carpatho-Balcanic) elements, and 15 Carpathian endemisms. This is fewer than the endemisms occurring on the calcareous bedrock. The number of cosmopolitans (45) and adventive (9) elements is low, this shows that the territory is relatively undisturbed, with an "uncontaminated" flora.

Disturbance factors are; forestry works, and grazings. Forests are not older than 100–120 years after that are cut. There are many clear-felled areas, pioneer communities or plantation, fields destroyed by natural disasters.

The list of species registered on the territory

Abies alba Mill. – MM, K-Eur – common, but seldom occurs in big stands; it was replaced by spruce during the forestry works, the number of individuals decreases.

Achillea collina J. Becker ex Reichenb. – H, K-Eur – on dry hill slopes.

Achillea distans W. et K. – H, K-Eur (mont) – on sunny grasslands.

Achillea lingulata W. et K. – H, Kárp-Balk – alpine grassland on the top of Bistricioara.

Achillea millefolium L. – H, EA – common.

Achillea millefolium L. subsp. **sudetica** (Opiz) Weiss – H, Kárp-Balk – new data: among montane pine on Negoiu, rubble slope above the Platz region.

Achillea ptarmica L. – H, EA – seldom in bush communities.

Achillea serbica Nyman subsp. **schurii** (Schultz Bip.) Heimerl (= *A. schurii* Schultz Bip.) – H, Kárp (end) – Flora: on Tihu.

Achillea stricta (Koch) Schleiker (= *A. tanacetifolia* var. *stricta* Koch) – H, Alp-Balk – frequent in grasslands and wood margins.

Acer campestre L. – MM-M, Eur – not frequent: beech wood in Saracin valley.

Acer platanoides L. – MM, Eur – beech and oak-hornbeam mixed woods especially on the western side of the defile.

Acer pseudoplatanus L. – MM, K-Eur – common.

Acinos arvensis (Lam.) Dandy (= *Calamintha acinos* (L.) Clairv.) – Th, Eur (med) – on dry rocky slopes along the defile.

Aconitum anthora L. – H, Eur (kont) – Csűrös: ?without specifying the occurrence, Flora: in the defile between Szalárd and Toplica.

Aconitum firmum Reichenb. (= *A. callibotryon*) Reichenb. – H, Kárp-Balk-Sudet – upper part of Ilva brook, left branch, on Negoiu and Dragus.

Aconitum moldavicum Hacq. – H, Kárp (end) – frequent on wood margins and tall herbaceous communities along water flows, Flora: var. *haequetianum* and var. *confusum* along the defile, not confirmed by the author.

Aconitum paniculatum subsp. **Degenii** Lam. – H, Alp-Kárp-Balk – wood margins in the lower part of Ilva valley, and Ratosnya valley central branch (Mijlocul).

Aconitum paniculatum subsp. **paniculatum** Lam. – H, Alp-Kárp-Balk – upper part of the central branch of Ratosnya valley.

Aconitum tauricum Wulfen subsp. **Koelleanum** (Reichenb.) Gay. – H, Kárp-Balk – Dragus pasture, Flora: Pietrosz.

Aconitum vulparia Reichenb. – H, K-Eur – new data: spruce forests in Ilva valley, and upper part of the central branch of Ratosnya (Apa Neagra).

Actaea spicata L. – H, EA – frequent on proper habitats.

- Adenostyles alliariae* (Gouan.) Kerner – H, Eur (alp) – several individuals on clear-felled areas in the upper part of the Ratosnya valley, (Piciorul Popii, Bistricioara).
- Adoxa moschatellina* L. – H, cirk-b – oak-hornbeam woods along the defile.
- Aegopodium podagraria* L. – H, EA – frequent especially in alder woods.
- Agrimonia eupatoria* L. – H, EA – sunny grasslands.
- Agrostis canina* L. – H, EA – wet meadows, along the defile.
- Agrostis capillaris* L. (= *A. tenuis* Sibth.) – H, cirk-b – characteristic of montane grasslands.
- Agrostis rupestris* All. – H, Alp-Kárp-Balk – pasture along the mountain ridge on the bottom of Ciungeti.
- Agrostis stolonifera* L. (= *A. alba* L.) – H, cirk-b – marshmeadows along the river.
- Ajuga genevensis* L. – H, EA (kont) – common in the defile.
- Ajuga reptans* L. – H, Eur – common in the defile and brook valleys.
- Alchemilla acutiloba* Opiz – H, Eur – seldom on pastures.
- Alchemilla glaucescens* Wallz. (= *Alchemilla hybrida* (Mill.) L.) – H, Eur (mont) – pasture on the mountain ridge, bottom of Ciungeti.
- Alchemilla xanthochlora* subsp. *subcrenata* Rothm. (= *A. vulgaris* Politz.) – H, K-Eur – montane pastures, especially where the animals are resting.
- Alisma plantago-aquatica* L. – HH, kozm – around stagnant waters, pools.
- Alliaria petiolata* (Bieb.) Cav. et Grande – Th-TH, EA (med) – alder woods along the river.
- Allium senescens* subsp. *montanum* (Fries) Holub (= *A. montanum* Schmidt) – G, EA (kont) – new data: rocky grasslands along the defile between Neagra and Stinceni.
- Allium ursinum* L. – G, Eur – rare, alder woods on the river side, beech forests in Visa valley facing forester's lodge.
- Allium victorialis* L. – G, Eur (mont) – downwards to Ruscii among montane pine and spruce forests on south-eastern slope of Bistricioara.
- Alnus glutinosa* Gaertn. – MM, EA – characteristic along the river flow.
- Alnus incana* (L.) Mönch – MM, EA – mostly along brooks, seldom on the river side.
- Alnus viridis* (Chaix) DC. – MM, Alp-Kárp-Balk – well-heads of Ratosnya branches and Ilva valleys, on rubbled slopes and rifts in the Negoiu and Pietrosz valleys, also on rocky places together with *Pinus cembra*.
- Alopecurus pratensis* L. – H, EA – marshmeadows along the river.
- Alyssum alyssoides* L. – Th-TH, Eur (kont) – disturbed stony slopes.
- Amaranthus retroflexus* L. – Th, adv – common around settlements.
- Anagallis arvensis* L. – Th, kozm – disturbed territories.
- Anaphasis margaritacea* (L.) Benth. – H, adv – Flora: on Istenszéke.
- Anchusa officinalis* L. – Th-H, Eur (med) – disturbed territories, around settlements, sunny grasslands.
- Anemone narcissiflora* L. – G, cirk-b (alp) – alpine grass on the top of Bistricioara.
- Anemone nemorosa* L. – G, Eur – oak-hornbeam wood on the western part of the defile.
- Anemone ranunculoides* L. – G, Eur – seldom in beech woods on fields of Ratosnya and Andrászataka.
- Angelica archangelica* L. – TH-H, EA (bor) – on the upper part of Ratosnya valley in tall herbaceous vegetation and downwards to the Pietrosz valley.
- Angelica sylvestris* L. – H, EA – frequent along the waterflows and wet meadows.
- Antennaria dioica* (L.) Gaertn. – H, cirk-b – frequent on rocky grasslands from the defile to the top of Pietrosz, seldom in sunny grasslands.
- Anthemis tinctoria* L. – H, EA – dry sunny slopes along the defile.
- Anthoxanthum odoratum* L. – H, EA – characteristic of montane and alpine grasslands.
- Anthriscus cereifolium* (L.) Hoffm. – Th, Med (est) – in the river defile sporadically on the western part.

- Anthriscus sylvestris** (L.) Hoffm. – H, EA (med) – common in forests.
- Anthyllis vulneraria** L. – H, Eur (med) – frequent in grasslands.
- Aquilegia vulgaris** L. – H, Eur (med) – rare: alder wood along the upper part of the Ratosnya valley, central branch (Apa Neagra). Flora: only on the other side of the Kelemen Mts (Padurea Rampa-Lomas).
- Arabidopsis thaliana** (L.) Heynh. – Th-TH, EA (med) – sporadically on dry, rocky slopes.
- Arabis glabra** (L.) Bernh. (= *Turritis glabra* L.) – TH, cirk-b – in oak-hornbeam woods and wood margins in the defile.
- Arabis hirsuta** (L.) Scop. – TH, cirk-b – clear-felled areas, disturbed grasslands.
- Arctium lappa** L. – TH, EA (med) – frequent on proper habitats, mostly in alder woods.
- Arctium tomentosum** Miller-Brustur – TH, EA – around settlements.
- Arenaria serpyllifolia** L. – Th, cirk-b – on dry, sunny slopes.
- Aristolochia clematitis** L. – H-G, K-Eur (med) – alder woods, on ditch sides, around settlements.
- Arnica montana** L. – H, Eur (mont) – forest fringe on the bottom of Bistricioara, mountain pine zone on Negoiu.
- Arrhenatherium elatius** (L.) Presl. – H, Eur (med) – not very frequent: wet meadows.
- Artemisia absinthium** L. – Ch, EA (med) – common in the defile.
- Artemisia eriantha** Ten. (= *A. petrosa* Fritsch) – H, Alp-Kárp-Balk – Csűrös, Flora: Pietrosz.
- Artemisia vulgaris** L. – H, cirk-b – common in the defile.
- Arum maculatum** L. – G, K-Eur (med) – beech woods in Ratosnya valley.
- Aruncus dioicus** (Walter) Fernald (= *A. vulgaris* Rafin.) – H, EA – on wood margins and tall herbaceous communities along the water flows.
- Asarum europaeum** L. – H, EA – forests on the western part of the defile.
- Asperula cynanchica** L. – H, Pont-Med – rocky grasslands on the southern slopes of the defile.
- Asplenium ruta-muraria** L. – H, cirk-b – in the defile between Ratosnya and Palotailva on rocks near the road, not mentioned by the Flora.
- Asplenium septentrionale** (L.) Hoffm. – H, cirk-b – Maros defile on rocks, common in the defile.
- Asplenium trichomanes** L. – H, kozm – common on shady rocks and rock-dents, not mentioned by the Flora.
- Asplenium viride** Huds. – H, cirk-b – in the defile between Ratosnya and Palotailva on rocks near the road.
- Astralagus cicer** L. – H, Eur (kont) – disturbed grasslands around settlements.
- Astralagus glycyphyllus** L. – H, EA – in bush-communities, oak-hornbeam forest.
- Athyrium filix-femina** (L.) Roth – G, kozm – common on the whole territory.
- Atriplex tatarica** L. – Th, EA (med) – around settlements.
- Atropa belladonna** L. – H, Alt-Med-K-Eur – clear-felled territories, clearings.
- Barbarea vulgaris** R. Br. – TH-H, EA (med) – new data: alder wood near Dédabisztra, Visa valley.
- Bellis perennis** L. – H, Eur (med) – common in grasslands.
- Berteroa incana** (L.) DC. – Th, EA (kont) – seldom on disturbed, sunny grasslands.
- Betula pendula** Roth – MM, EA – pioneer species in the montane zone, frequently mixed with spruce.
- Bidens tripartita** L. – Th, EA – along the river flow, in tall herbaceous communities.
- Bilderdykia convolvulus** (L.) Dum. (= *Fallopia convolvulus* (L.) A. Löwe) – Th, EA – seldom in beech woods.
- Blechnum spicant** (L.) Roth – H, cirk-b – sporadically in spruce forests.

Botrychium lunaria (L.) Swartz. – G, kozm – Csűrös: grassland under Pietrosz on hardly accessible, undisturbed territory, f. *subincisum* Flora: Pietrosz.

Brachypodium pinnatum (L.) Beauv. – H, EA (med) – hornbeam-oak mixed woods near Ratosnya-Jód.

Brachypodium sylvaticum (Huds.) Beauv. – H, EA (med) – common in beech woods.

Briza media L. – H, EA – common in grasslands and marshmeadows.

Bromus arvensis L. – Th, EA (med) – especially around settlements, along fences.

Bromus commutatus Schrad. – Th, Eur – on wet meadows.

Bromus hordeaceus L. (= *B. mollis* L.) – Th, EA – sporadically in grasslands.

Bromus inermis Leyss. – H, EA (kont) – on road sides, disturbed grasslands.

Bromus ramosus Huds. – H, EA – in deciduous forests along the defile.

Bryonia alba L. – H, EA (kont) – along fences.

Buglossoides arvensis (L.) I. M. Johnston (= *Lithospermum arvense* L.) – Th, EA – sporadically on land fields.

Bunias orientalis L. – TH, EA (kont) – wet meadows on the western part of the defile, and on fields of Neagra.

Bupleurum falcatum L. – H, EA – on sunny slopes.

Bupleurum longifolium L. subsp. **vapicense** – H, EA – Flora: present in the Kelemen Mts.

Calamagrostis arundinacea (L.) Roth – H, EA – invades clear-felled areas.

Calamagrostis canescens (Web.) Roth – H, EA – new data: clear-felled areas on fields of Neagra.

Calamagrostis epigeios (L.) Roth – H, EA (med) – disturbed wet meadows, clearings.

Calamagrostis pseudophragmites (Hall.) Koeler – H, EA (kont) – Nyárády: on the eastern part of the defile.

Calamintha sylvatica Bromf. (= *C. officinalis* Gams) – H, K-Eur-Med – seldom in oak-hornbeam forests.

Calla palustris L. – HH, cirk-b – rare: in stagnant or gently flowing waters along the river?

Callitriche cophocarpa Sendtner (= *C. polymorpha* Lönnr.) – HH, EA – in stagnant waters, puddles.

Caltha laeta var. **alpina** Sch. Nym. et Kot. (= *C. palustris* subsp. *laeta* (Sch. Nym. et Kot.) Hegi) – H, Eur – common on wet meadows, alder woods along the brook sides and the river, Flora var. *pseudocornuta*: Tihulet valley.

Calystegia sepium (L.) R. Br. – H, EA – along waterflows, reed banks, fences.

Campanula alpina Jacq. – H, Alp-Kárp – frequent in alpine grasslands.

Campanula cervicaria L. – H, EA (kont) – Csűrös: in spruce forests.

Campanula glomerata L. – H, EA – frequent in grasslands.

Campanula kladiana var. **degeniana** (Schur) Wit. – H, Kárp (end) – on the top of Bistri-cioara, Negoiu, Dragus rocks, rocky grassland on Istenszéke.

Campanula kladiana subsp. **polymorpha** (Schur) Wit. (= *C. polymorpha* Wit.) – H, Kárp (end) – top rocks of Istenszéke.

Campanula latifolia L. – H, EA – new data: in the defile in tall herbaceous vegetation near Neagra.

Campanula patula L. – TH, Eur – grasslands in the defile.

Campanula patula L. subsp. **abietina** (Griseb.) Simonk. – TH, Kárp-Balk – frequent in montane grasslands, pastures and wood margins.

Campanula persicifolia L. – H, EA (med) – in oak-hornbeam and beech woods.

Campanula rapunculoides L. – H, EA (med) – on rocky slopes, especially along the defile.

Campanula rotundifolia L. – H, cirk-b – seldom in grasslands and rocky slopes.

Campanula serrata (Kit.) Hendryck (= *C. napuligera* Schur) – H, Kárp-Balk – new data: on the Istenszéke plateau, margins of spruce forests.

- Campanula trachelium** L. – H, EA (med) – common in forests.
- Capsella bursa-pastoris** (L.) Medik – Th, kozm – common.
- Cardamine amara** L. – H, EA – around well-heads of brooks in the montane zone.
- Cardamine flexuosa** Wilh. – Th, cirk-b – along the brook sides.
- Cardamine impatiens** L. – Th, EA (med) – in beech woods.
- Cardamine Opizii** J. et C. Presl – H, K-Eur – on the Zebrac valley, lake Jezer.
- Cardamine pratensis** L. – H, cirk-b – marshmeadows along the river flow.
- Cardaminopsis arenosa** (L.) Hay. – TH, K-Eur – on sunny rocks, frequent on the southern slopes of the defile.
- Carduus acanthoides** L. – TH, Eur (med) – around settlements, disturbed grasslands, road sides.
- Carduus kernerii** Simonk. (= *C. transsilvanicus* Borbás) – TH, Kárp-Balk – new data: upper part of Ilva and Ratosnya valleys, on rubbled slopes, screes.
- Carduus personata** (L.) Jacq. – H, K-Eur (mont) – frequent along brook sides.
- Carex acuta** L. (= *C. gracilis* Curtis) – HH-G, EA – mire vegetation on fields of Dédabisztra.
- Carex atrata** L. – H, cirk (arkt-alp) – frequent in alpine grasslands, accompanied by *Juncus trifidus*.
- Carex brizoides** L. – H-G, K-Eur – new data: beech wood Saracin valley.
- Carex brunnescens** (Pers.) Poir. – H, cirk-b – Zólyomi: on Cica plateau.
- Carex bueckii** Wimmer – HH, Pont-Pan – along the river flow.
- Carex buxbaumii** Wahlenb. – G, kozm – wet meadows along the river.
- Carex caryophyllea** Latour (= *C. praecox* Jacq.) – G, EA (med) – on wood margins, sunny slopes.
- Carex chordorrhiza** L. – H, cirk-b – Zólyomi: peatbog vegetation on Cica plateau.
- Carex curta** Good. (= *C. canescens* L.) – H, cirk-b – on pastures of the subalpine zone; Gruiu saddle, Flora: Palotailva.
- Carex diandra** Schrank – G, cirk-b – marshmeadow near railway station Neagra.
- Carex digitata** L. – H, Eur – seldom in beech woods on the western part of the defile, and Ratosnya valley.
- Carex distans** L. – H, Eur – mire communities on fields of Dédabisztra.
- Carex divulsa** Stokes – H, EA – in beech woods.
- Carex echinata** Murray (= *C. stellulata* Good.) – H, cirk-b – Csűrös: without specifying the occurrence, Flora: Rachititis.
- Carex elongata** L. – H, EA (bor) – alder wood near Szalárd bridge, Diaconeasa: mire communities on fields of Dédabisztra.
- Carex flacca** Schreb. – G, EA – mire vegetation on fields of Dédabisztra.
- Carex flava** L. – H, cirk-b – frequent on wet meadows, *en mass* between Stanceni and Neagra.
- Carex heleonastes** L. – H, cirk-b – Zólyomi: bog vegetation on the Cica and Cocos.
- Carex hirta** L. – G, Eur (med) – common.
- Carex lasiocarpa** Ehrh. – H-HH, cirk-b – Zólyomi: on Cica plateau.
- Carex lepidocarpa** Tausch. – H, Eur – marshmeadow close to Neagra railway station, wet grassland on way out from Ilva valley.
- Carex limosa** L. – H, cirk-b – Zólyomi: peatbog in Cica plateau.
- Carex muricata** L. (= *C. pairae* Schultz.) – H, EA (med) – beech-spruce mixed wood in Mermezeu valley.
- Carex nigra** var. **juncea** (L.) Reichard (= *C. fusca* All.) – G, cirk-b – new data; on marshmeadows near Neagra railway station, pasture on Dragus plateau, Flora: mentions only in the region of Gyergyó Mts.

Carex ovalis Good. (= *C. leporina* L.) – H, K-Eur – everywhere frequent on pastures, grasslands on the upper montane and alpine zone.

Carex pallescens L. – H, cirk-b – mire vegetation on fields of Dédabisztra.

Carex panicea L. – H, EA – mire communities on fields of Dédabisztra.

Carex pauciflora Lightf. – H, cirk-b – Zólyomi: peatbog on Cica, Csűrös: without mentioning the place.

Carex pilosa Scop. – H, EA – common in beech woods.

Carex remota L. – H, Eur – frequent in beech, and beech-spruce mixed forests.

Carex riparia Curtis – HH, EA (med) – mire vegetation on fields of Dédabisztra, along the river bank.

Carex rostrata Stokes – HH, cirk-b – peatbogs.

Carex spicata Huds. (= *C. contigua* Hoppe) – H, EA (med) – wet meadow along the river on fields of Stanceni, grassland on the Capatina plateau.

Carex sylvatica Huds. – H, Eur – common in beech, and spruce-beech mixed forests.

Carex ×**tetrastachya** Trautnst. (= *C. canescens* ×*echinata*) – H – Flora: Rachitis.

Carex vesicaria L. – HH, cirk-b – marsh communities along the river.

Carex vulpina L. – HH, EA (med) – wet habitats along waterflows.

Carlina acaulis L. – H, K-Eur-Med – common on sunny slopes and grasslands.

Carlina vulgaris L. – TH-H, EA (med) – seldom: sunny, dry slopes along the defile.

Carpinus betulus L. – MM, Eur – present in stands of oak-hornbeam woods on the western part of the defile, seldom in beech woods.

Carum carvi L. – TH, EA – common in grasslands and pastures.

Catabrosa aquatica (L.) Beauv. – H, cirk-b – in mire communities, seldom along brooks.

Centaurea ×**alexandrii-borzae** Prodan et Nyár. – H – new data: along the defile on grasslands.

Centaurea biebersteinii DC. (= *C. micranthos* Gmel.) – Th, Eur (kont) – common in dry grasslands and sunny slopes.

Centaurea ×**bükensis** Nyár. – H – new data: grasslands along the defile on fields of Neagra and Mestera.

Centaurea ×**erdneri** Wagn. – H – new data: grassland near Neagra.

Centaurea ×**kovacsi** Wagn. – H – new data: grassland near Neagra.

Centaurea nigrescens Willd. – H, K-Eur – on grasslands.

Centaurea phrygia L. subsp. **melanocalathia** (Borbás) Dostal (= *C. melanocalathia* Borbás) – H – on fields of Ratosnya.

Centaurea phrygia L. subsp. **phrygia** L. (= *C. austriaca* Willd.) – H, K-Eur – Maros defile, on wet meadow near Neagra.

Centaurea phrygia L. subsp. **pseudophrygia** (C. A. Meyer) Gugler (= *C. pseudophrygia* Meyer) – H – grassland on fields of Neagra.

Centaurea ×**prodani** Wagn. – H – new data: grasslands along the defile on fields of Neagra.

Centaurea stoebe L. (= *C. rhenana* Boreau) – TH-H, EA – Flora: in the defile.

Centaurea ×**szovatensis** Nyár. – H – new data: grasslands along the defile, on fields of Neagra.

Cephalanthera longifolia (L.) Fritsch – G, Eur – oak-hornbeam woods on the western part of the defile.

Cerastium alpinum L. – Ch, EA (arkt-alp) – Pietrosz peak and saddle.

Cerastium fontanum Baumg. subsp. **triviale** (Link.) J alas (= *C. caespitosum* Gilib.) – H-Ch, kozm – around settlements, on pastures.

Cerastium glomeratum Thuill. – Th, kozm – on wet meadows

Cerasus avium (L.) Mönch – MM-M, K-Eur-Med – oak-hornbeam woods.

Chaerophyllum aromaticum L. – H, K-Eur (kont) – clear-felled areas, wood margins.

Chaerophyllum aureum L. – H, Eur (med) – wood margins, bush communities.

Chaerophyllum hirsutum L. var. **glabrum** (= *C. cicutaria* Vill.) – H, EA – frequent along brook sides, tall herbaceous communities.

Chamaecytisus hirsutus (L.) Link (= *Cytisus leucotrichus* Schur) – N, K-Eur – rocky grasslands along the defile, southern slopes on Leul and Saracin.

Chamaenerion angustifolium (L.) Scop. (= *Epilobium angustifolium* L.) – H, cirk-b – common in clear-felled territories, on screes.

Chelidonium majus L. – H, EA – around settlements and alder woods.

Chenopodium album L. – Th, kozm – common on disturbed areas, around settlements.

Chenopodium Bonus-Henricus L. – H, Eur – pasture on the Istenszéke plateau.

Chenopodium foliosum Aschers. – Th, EA (med) – pasture on the southern part of the defile between Neagra and Stancenii.

Chrysosplenium alternifolium L. – H, cirk-b – wet habitats, along streamlets, humid, shady areas.

Cicerbita alpina (L.) Wallz. (= *Mulgedium alpinum* (L.) Less) – H, Eur (mont) – frequent in brook valleys and clear-felled areas on the upper part of Ilva, Zebrac and Ratosnya.

Cichorium intybus L. – H-TH, EA – common on disturbed grasslands in the defile.

Cicuta virosa L. – HH, EA – frequent along the river flow.

Circaea alpina L. – H, cirk-b – frequent in spruce and beech-spruce mixed forests.

Circaea lutetiana L. – G, EA – in alder woods along the river.

Cirsium arvense (L.) Scop. – G, EA (med) – common on wet habitats.

Cirsium canum (L.) All. – G, EA (kont) – mire communities on fields of Dédabisztra.

Cirsium eriophorum (L.) Scop. – TH, K-Eur – pasture Capatina, Bradul, pasture on the central part of Fintinele valley.

Cirsium erisithales (Jacq.) Scop. – H, K-Eur (mont) – common along brook sides and wood margins.

Cirsium helenioides (L.) Hill (= *C. heterophyllum* L.) – G, EA – new data: Mermezeu valley; clear-felled territories.

Cirsium oleraceum (L.) Scop. – H, EA – common along waterflows in tall herbaceous communities.

Cirsium palustre (L.) Scop. – TH, EA (med) – common along waterflows in tall herbaceous communities.

Cirsium rivulare (Jacq.) All. – H, K-Eur – along waterflows in tall herbaceous communities.

Cirsium xsubalpinum Gaudin (= *C. palustre xrivulare*) – H – new data: wet meadow Neagra close to the railway station.

Cirsium waldsteinii Rony (= *C. pauciflorum* W. et K.) – H, Alp-Kárp-Balk – Mermezeu valley, clear-felled area, Flora: Istenszéke plateau.

Clematis alpina (L.) Mill. (= *Atragene alpina* L.) – H, arkt-alp – seldom, especially in the defile and in the Ratosnya valley.

Clematis vitalba L. – N-E, K-Eur (med) – defile, margin of the woods and roads.

Clinopodium vulgare L. (= *Calamintha clinopodium* Benth) – H, cirk-b – clearings, sunny slopes, bush communities.

Cnidium dubium (Schkuhr) Thell. – TH, EA – new data: wet meadow along the river near Szalárd, Palotailva, Ratosnya close to the barrage buildings.

Coeoglossum viride (L.) Hartman – G, cirk-b – Csűrös: alpine grassland, hardly accessible, undisturbed place, Pietrosz?

Colchicum autumnale L. – G, Eur-Med – relatively rare, grassland along the defile close to Szalárd tunnel.

Conium maculatum L. – Th-TH, Med (est) – alder wood Szalárd.

Consolida regalis S. F. Gray (= *Delphinium consolida* L.) – Th, EA – on landfields.

- Convolvulus arvensis** L. – H, kozm – common.
- Cornus mas** L. – M, K-Eur – oak-hornbeam wood on fields of Ratosnya.
- Cornus sanguinea** L. – N-M, K-Eur (med) – alder woods, oak-hornbeam woods, bush communities.
- Coronilla varia** L. – H, K-Eur-Med – common on sunny grasslands, sunny-rocky grasslands on the southern slopes of the defile.
- Corydalis bulbosa** (L.) DC. (= *C. cava* L.) – G, K-Eur – beech wood in Galonya valley.
- Corydalis solida** (L.) Sw. – G, Eur – beech wood in Galonya valley and oak-hornbeam woods.
- Corylus avellana** L. – M, Eur – beech woods, bush communities.
- Crataegus monogyna** Jacq. – M, Eur – common in the defile and montane zone.
- Crepis biennis** var. **lacea** L. – TH, Eur – wet meadows along the river flow.
- Crepis paludosa** (L.) Mönch – H, Eur – frequent on the river side and on the brook sides.
- Crocus vernus** (L.) Hill subsp. **vernus** (= *C. heuffelianus* Herb.) – G, Kárp-Balk – seldom on wet meadows along the defile.
- Cruciata glabra** (L.) Ehrend. (= *Galium vernum* Scop.) – H, EA – sporadically in grasslands and clearings.
- Cruciata laevipes** Opiz (= *C. ciliata* Opiz) – H, EA – seldom in grasslands, clear-felled areas.
- Cucubalus baccifer** L. – H, EA – common on proper habitats.
- Cuscuta europaea** L. – Th, EA – common.
- Cynoglossum officinale** L. – Th, EA (kont) – seldom on dry sunny slopes, grasslands.
- Cynosurus cristatus** L. – H, Eur – characteristic of montane grasslands.
- Cystopteris fragilis** (L.) Bernh. – H, kozm – frequent on shady rocks.
- Cystopteris sudetica** A. Br. et Milde – H, EA – shady rocks in the montane zone around Neagra.
- Dactylis glomerata** L. – H, EA (med) – common.
- Dactylorhiza cordigera** (Fr.) Soó – G – Flora: present in the Kelemen Mts, and the defile near Palotailva, Dragulescu: in the defile.
- Dactylorhiza maculata** (L.) Soó – G, EA (med) – well-heads peatbog on Dragus plateau.
- Dactylorhiza majalis** (Reichenb.) Hunt et Sum. (= *D. latifolia* (L.) Soó) – G, K-Eur – in Maros defile: pasture on fields of Szalárd near the hot-well, wet meadows near Mestera and Stince-ni.
- Dactylorhiza sambucina** (L.) Soó (= *Orchis sambucina* L.) – G, EA – Flora: in the Kelemen Mts and Déda region.
- Daphne mezereum** L. – N, EA – common in forests.
- Delphinium elatum** subsp. **elatum** L. (= *D. intermedium* var. *pubicaule* Aiton) – new data: tall herbaceous community in the upper part of Ilva valley, right branch, Ratosnya valley upper part (Babele)
- Dentaria bulbifera** L. – G, K-Eur – frequent in beech woods.
- Dentaria glandulosa** W. et K. – G, Kárp (end) – characteristic of beech woods.
- Deschampsia caespitosa** (L.) Beauv. var. **caespitosa** – H, kozm – wet meadows and pastures, var. *alpina* common in the subalpine and alpine grasslands.
- Deschampsia flexuosa** (L.) Trin. – H, cirk (arkt-alp) – var. *flexuosa* in beech woods and wet meadows, var. *montana* frequent in alpine grasslands.
- Descurainia sophia** (L.) Web. (= *Sisymbrium sophia* L.) – Th, EA – around settlements, disturbed territories.
- Dianthus armeria** L. – Th-TH, Eur – common in clearings, grasslands, wood margins.
- Dianthus barbatus** L. – H, Med (est) – wood margins.
- Dianthus barbatus** L. subsp. **compactus** (Kit.) Heuff. (= *D. compactus* Kit. – H, Alp-Kárp-Balk – seldom on wood margins, stony slopes, f. *umbrosus*: along the defile.

- Dianthus carthusianorum** L. – H, Eur – specific for rocky grasslands, meadows.
- Dianthus tenuifolius** Schur – H-Ch, Kárp (end) – rare: top of Istenszéke.
- Digitalis grandiflora** Mill. – H, Eur – frequent along brook valleys and wood margins.
- Diphysium alpinum** (L.) Rothm. (= *Lycopodium alpinum* L.) – Ch, cirk (arkt-alp) – between the Pietrosz and Gruiu saddle, Bistricioara and Negoiu.
- Dipsacus fullonum** L. – Th, Med-K-Eur – sporadically on wet habitats.
- Dipsacus laciniatus** L. – TH, EA (kont) – in wet meadows.
- Doronicum austriacum** Jacq. – H, K-Eur (mont) – frequent in spruce forests, clear-felled areas.
- Draba carinthiaca** Hoppe var. **genuina** Stur. – Flora: present in the Kelemen Mts.
- Draba muralis** L. – Th, Med-Eur – rocks along the defile.
- Draba nemorosa** L. – Th, cirk-b – rocky grasslands.
- Dryopteris assimilis** S. Walker – H, cirk-b – new data: spruce forest in Fintinele valley, probably also elsewhere.
- Dryopteris carthusiana** (Vill.) H. P. Fuchs – H, cirk-b – beech wood Bradul valley.
- Dryopteris cristata** (L.) A. Gray – H, cirk-b – rare: in alder woods along brook sides.
- Dryopteris dilatata** (Hoffm.) Gray (= *D. austriaca* Jacq.) – H, cirk-b – rare: Fintinele valley, Flora: lake Zinelor.
- Dryopteris filix-mas** (L.) Schott – H, kozm – common.
- Echinocystis lobata** (Michx.) Torr et Gray – Th, adv – in spreading along the defile, mentioned also by Dragulescu in the western part of the defile.
- Echium vulgare** L. – TH, EA – road margins, disturbed grasslands.
- Eleocharis palustris** (L.) R. Br. – G, kozm – in stagnant water, mires, around pools.
- Elymus caninus** L. (= *Agropyron caninum* (L.) Beauv.) – H, EA (med) – frequent in the montane zone.
- Elymus repens** (L.) Gould. (= *Agropyron repens* (L.) Beauv.) – G, EA – common.
- Empetrum nigrum** L. – N, cirk (arkt-alp) – Gruiu, Pietrosz nothern slope.
- Epilobium alsinifolium** Vill. – H, EA (arkt-alp) – water side on the bottom of Bistricioara, Flora: only on Pietrosz.
- Epilobium hirsutum** L. – H, EA (med) – clear-felled areas.
- Epilobium montanum** L. – H, EA (med) – frequent on wood margins, bush communities.
- Epilobium nutans** F. W. Schmidt – H, Eur (alp) – peatbog on Dragus plateau, Cica plateau.
- Epilobium palustre** L. – H, cirk-b – grasslands on fields of Ratosnya.
- Epilobium parviflorum** (Schreb.) With. – H, EA – tall herbaceous communities, clear-felled areas, pits.
- Epilobium roseum** Schreb. – H, EA – Mermezeu valley.
- Epilobium tetragonum** L. (= *E. adnatum* Griseb.) – H, EA – sporadically in tall herbaceous community.
- Epipactis atrorubens** (Hoffm.) Bess. (= *E. atropurpurea* (Rajin) Schinz et Thell.) – G, EA – new data: beech wood on Bistra valley.
- Epipactis helleborine** (L.) Cr. – G, EA – sporadically on wood margins, especially on fields of Ratosnya, Andráspataka.
- Epipactis palustris** (L.) Cr. – G, EA – Dragulescu: ? in the defile.
- Equisetum arvense** L. – G, kozm – common.
- Equisetum fluviatile** L. – HH, cirk-b – mire vegetation, wet meadows along the river flow.
- Equisetum hiemale** L. – G, cirk-b – not very frequent; Ilva valley, Ratosnya valley central branch (Mijlocul).
- Equisetum palustre** L. – G, cirk-b – mire vegetation, wet meadows along the river flow big stands on fields of Dédabisztra, no data in the Flora.

Equisetum ramosissimum Desf. – G, kozm – rare: disturbed grassland near Neagra; no data in the Flora.

Equisetum sylvaticum L. – G, cirk-b – common in mixed and spruce forests.

Equisetum telmateja Ehrh. (= *E. maximum* Lam.) – G, cirk-b – not very frequent: especially in tall herbaceous communities and sometimes in grazed grasslands, no data in the Flora.

Erigeron acer L. – TH, cirk-b – common in sunny grasslands.

Erigeron annuus (L.) Pers. subsp. **strigosus** (Mühl.) Wagenitz (= *Stenactis annua* (L.) Nees) – Th, adv – frequent around settlements.

Erigeron atticus Will. – H, K-Eur (alp) – new data: upper part of Ilva central valley, clear-felled territory.

Eriophorum angustifolium Honck. – G, cirk-b – peatbog on Dragus plateau.

Eriophorum latifolium Hoppe – H, EA – frequent in montane mire communities.

Eriophorum vaginatum L. – H, cirk-b – peatbog on Cica, Dragus plateau, lake Jezer.

Erodium cicutarium (L.) L'Hér. – Th, kozm – on disturbed grass communities, along fences.

Euonymus europaeus L. – M, Eur – rare: only on the western part of the defile.

Euonymus verrucosa Scop. – M, Eur – frequent in the montane zone.

Eupatorium cannabinum L. – H, EA (med) – along the river flow and brook sides.

Euphorbia amygdaloides L. – Ch, Eur (med) – in beech and mixed woods.

Euphorbia carniolica Jacq. – H, K-Eur (mont) – frequent along the valleys.

Euphorbia platyphyllos L. – Th, K-Eur (med) – around settlements.

Euphrasia minima Jacq. – Th, EA (arkt-alp) – alpine grass on Pietrosz, Retitis and Bistri-cioara.

Euphrasia pectinata Ten. (= *E. tatarica* Fisch. ex Spreng.) – Th, EA (kont) – grassland on fields of Ratosnya, Fintinele valley, no data in the Flora.

Euphrasia rostkoviana Hayne – Th, K-Eur – frequent in grasslands.

Euphrasia salisburgensis Funch et Hoppe – Th, Eur – Flora: present in the Kelemen Mts.

Euphrasia stricta Wolf – Th, K-Eur – frequent in grasslands.

Fagus sylvatica L. – MM, Eur – big stands on the western part of the territory until Palotailva, in many places replaced by spruce.

Festuca airoides Lam. (= *F. supina* Schur) – H, EA (arkt-alp) – characteristic of alpine grasslands.

Festuca altissima All. (= *F. sylvatica* (Poll.) Vill.) – H, Eur – common in mixed forests.

Festuca arundinacea Schreb. – H, K-Eur – Flora: var. *orientalis* Palotailva.

Festuca drymea Mert. et Koch – G, Kárp-Balk – especially in beech-spruce mixed woods.

Festuca gigantea (L.) Will. – H, EA – in mixed woods and clearings.

Festuca heterophylla Lam. – H, Eur (med) – oak-hornbeam woods.

Festuca ovina subsp. *ovina* L. – H, cirk-b – sporadically on pastures with *Nardus stricta*.

Festuca picta Kit. – H, Alp-Kárp-Balk – forms typical stands at the bottom of Ciungeti, sporadically in alpine bush communities.

Festuca porcii Hack. – H – Flora: present in the Kelemen Mts.

Festuca pratensis Huds. – H, EA – frequent on proper habitats.

Festuca rubra L. – H, cirk-b – characteristic of grasslands and pastures an the whole territory.

Festuca rupicola Heuff. subsp. *rupicola* (= *F. sulcata* (Hack.) Nym.) – H, EA (kont) – var. *sulcataeformis*, rocky grasslands along the defile on the southern slopes between Stancenii and Neagra.

Festuca valesiaca Schleich. – H, EA (kont) – rocky grasslands.

Filipendula vulgaris Mönch (= *F. hexapetala* Gilib.) – H, EA – frequent in grasslands.

Filipendula ulmaria (L.) Maxim. – H, EA – frequent in tall herbaceous communities, mires, along the river and the brook valleys.

Fragaria vesca L. – H, EA – common.

Frangula alnus Mill. – M, EA – sporadically along the river and wood margins.

Fraxinus excelsior L. – MM, Eur – sporadically in montane zone.

Fumaria schleicheri Soyer-Will. – Th, EA (med) – common on landfields.

Gagea lutea (L.) Ker.-Gawl. – G, EA – margin of beech wood Visa valley.

Galeopsis ladanum L. – Th, EA – bush communities.

Galeopsis pubescens Bess. – Th, K-Eur – wood margins and clearings.

Galeopsis speciosa Mill. – Th, EA (kont) – frequent on clear-felled areas.

Galeopsis tetrahit L. – Th, EA – frequent on clear-felled areas.

Galinsoga parviflora Cav. – Th, adv – common on landfields.

Galium anysophyllum Vill. – Ch (H), Alp-Kárp – pasture Capatina, grassland on Fintinele valley, Csűrös; Pietrosz.

Galium aparine L. – Th, cirk-b – common in alder woods.

Galium glaucum L. (= *Asperula glauca* (L.) Bess.) – H, Pont-Med – rocky grasslands in the defile.

Galium mollugo subsp. **erectum** Syme – H, EA – frequent in the montane zone.

Galium odoratum (L.) Scop. (= *Asperula odorata* L.) – G, EA – frequent in beech woods.

Galium palustre L. – H, cirk-b – mire communities along the river.

Galium schultesii Vest – G, K-Eur – oak-hornbeam woods, clearings.

Galium sylvaticum L. – G, K-Eur-med – in oak-hornbeam woods on the western part of the defile.

Galium uliginosum L. – H, EA – marshmeadows on the river side between Mestera and Stinceni.

Galium verum L. – H, EA – frequent in grasslands.

Genista tinctoria L. – Ch-N, EA – rocky slopes along the defile.

Gentiana acaulis L. (= *G. kochiana* P. et S.) – H, Alp-Kárp – alpine grass Negoiu, Bistricioara.

Gentiana asclepiadea L. – H, K-Eur (mont) – frequent in the montane zone; on grasslands, pastures and wood margins.

Gentiana praecox A. et J. Kern. subsp. **carpaticus** – Th, Alp-Balk-Kárp – sporadically on grasslands in the montane zone.

Gentiana punctata L. – H-G, Alp-Kárp – Pietrosz saddle and upper part of the valley, Bistricioara peak, Flora: Struniorul.

Gentiana utriculosa L. – Th, Alp-Kárp – new data: grasslands on the way out from Mermzeu and Zebrac valleys.

Geranium columbinum L. – Th, EA – dry rocky slopes on the southern part of the defile.

Geranium divaricatum Ehrh. – Th, EA (med) – seldom on screes.

Geranium palustre Torn. – H, EA (kont) – not very frequent, along brook sides.

Geranium phaeum L. – H, K-Eur – wood margins along brook valleys.

Geranium pratense L. – H, EA – grasslands along the defile.

Geranium pumilum Murr. – H, Eur – Flora: Pietrosz.

Geranium robertianum L. – H, kozm – common in forests.

Geranium sanguineum L. – H, Eur (med) – grasslands near Szalárd.

Geranium sylvaticum L. var. **alpestre** – H, EA (alp-bor) – new data: streamlets at the bottom of Bistricioara and Pietrosz.

Geum aleppicum Jacq. – H, cirk-b – around settlements.

Geum montanum L. – H, K-Eur – Flora: present in the Kelemen Mts.

Geum rivale L. – H, cirk-b – along the brook sides.

- Geum urbanum** L. – H, EA (med) – common in the defile.
- Gladiolus imbricatus** L. – G, EA (kont) – rare: marshmeadows on fields of Neagra.
- Glechoma hederacea** L. – CH-H, Eur – common around settlements.
- Glechoma hirsuta** W. et K. – Ch-H, Eur – alder-, beech-, and oak-hornbeam woods.
- Glyceria maxima** (Hartm.) Holmbg. (= *G. aquatica* L.) – HH, Pont-Balk – marshmeadows, reed banks along the river.
- Glyceria plicata** Fries – HH, EA (bor) – streamlets, marshmeadow on fields of Stancenî.
- Goodyera repens** (L.) R. Br. – G, cirk-b – Flora: Stinceni, Zebrac and Ilva valley.
- Gymnadenia conopsea** (L.) R. Br. – G, EA (med) – frequent on grasslands in the montane zone.
- Gymnadenia odoratissima** (L.) Richard – G, K-Eur – new data: Mermezeu valley, central part on the bottom of Teaca.
- Gymnocarpium dryopteris** (L.) Newman – G, cirk-b – frequent in spruce forests.
- Helianthemum nummularium** (L.) Dun. – Ch, EA – in dry grasslands.
- Helianthemum ovatum** (Viv.) Dun. – Ch-H, K-Eur – sunny, rocky slopes along the defile.
- Helleborus purpurascens** W. et K. – H, Kárp-Balk-Pan – deciduous woods on the western part of the defile.
- Hepatica nobilis** (Mill.) Gard. – G, Eur – frequent in oak-hornbeam- and beech woods along the defile.
- Hepatica transilvanica** Fuss – H, Kárp (end) – Flora: Ratosnya, Palotailva, not confirmed by the author!, not mentioned by Nyárády.
- Heracleum sphondylium** subsp. **sphondylium** L. – H, EA – frequent on clear-felled areas, wood margins, tall herbaceous communities.
- Hesperis nivea** Baumg. – H, Kárp (end) – Flora: present in the Kelemen Mts.
- Hieracium alpinum** subsp. **Linnei** L. – H, cirk (arkt-alp) – frequent on rubbled slopes and alpen rose communities in the alpine zone.
- Hieracium aurantiacum** L. – H, EA (arkt-alp) – frequent from 900–1000 m high, var. *carpathicola*: Istenszéke plateau.
- Hieracium auriculoides** Láng var. **tanytrix** Nyár. – H – Flora: along the defile.
- Hieracium bauhini** Bess. – H, EA (kont) – in dry grasslands.
- Hieracium bifidum** Kit. (= *H. pseudobifidum* Schur) – H, K-Eur – frequent in spruce forests, var. *stenolepis*: Istenszéke plateau.
- Hieracium ×brachyatum** Bertol (= *H. bauhini* × *pilosella*) – H, Eur – on Poiana Capatina, Flora: along the defile.
- Hieracium diaphanoides** Lbg. var. **ilvense** Nyár. – H – Flora: Ilva valley.
- Hieracium ×guthnikianum** Heget. et Heer var. **rehmanii** (= *H. cimosum* × *aurantiacum*) – H – Flora: Zebrac valley.
- Hieracium hoppeanum** Schult. – H, K-Eur-Med – new data: grasslands on the forest zone close to Neagra.
- Hieracium kotschyanum** Heuff. (= *H. sparsiflorum* subsp. *kotschyanum*) – H, Kárp (end) – new data; Ungurasul Mare valley.
- Hieracium lactucella** Wallz. (= *H. auricula* L.) – H, Eur – in disturbed grasslands.
- Hieracium leucaule** Jord. var. **serratilanceum** Nyár. – H – Flora: along the defile.
- Hieracium maculatum** Sm. – H, Eur – sporadically in dry, sunny grasslands and clearings.
- Hieracium pilosella** L. – H, Eur (med) – rocky sunny slopes.
- Hieracium praecurrens** Vukot. var. **pseudopleiophylloides** f. *palotae* Nyár. – H – Flora: Palotailva.
- Hieracium ×pseudobifidum** Schur (= *H. bifidum* × *H. transsylvanicum*) – H – new data: beech woods in Galonya, Saracin valleys.

Hieracium rotundatum Kit. (= *H. transsylvanicum* Heuff.) – H, Balk-Kárp – characteristic species of spruce forests from 900 m elevation.

Hieracium ×schultesii F. W. Schultz (= *H. auricula* × *pilosella*) – H, Eur – in spruce forests.

Hieracium sylvaticum (L.) Grufb. (= *H. murorum* L.) – H, EA – common in spruce forests.

Hieracium umbellatum L. – H, cirk-b – frequent in the montane zone.

Hippophaë rhamnoides L. – M, EA (kont) – new data: the entrance of Galonya valley, clear-felled area near the Ratosnya dike.

Holcus lanatus L. – H, EA – in wet meadows, mires.

Homogyne alpina (L.) Cass. – H, Eur (alp) – frequent in spruce forests, rocky slopes from 1000 m altitude.

Hordelymus europaeus (L.) C. O. Harz. (= *Elymus europaeus* L.) – H, Eur – sporadically in beech woods and clearings.

Hottonia palustris L. – HH, Eur – Flora: Ratosnya.

Humulus lupulus L. – H, EA – common on proper habitats.

Huperzia selago (L.) Bernh. (= *Lycopodium selago* L.) – Ch, kozm – frequent in spruce forests, f. *appressum* on Pietrosz close to Gruiu saddle, Flora: f. *recurvum*; Ratosnya, f. *dubium*; lake Zinelor.

Hydrocharis morsus-ranae L. – HH, EA – in still waters or gently flowing waters along the defile.

Hypericum hirsutum L. – H, EA – clear-felled areas.

Hypericum maculatum Cr. – H, EA – frequent on proper habitats.

Hypericum montanum L. – H, Eur – frequent on proper habitats.

Hypericum perforatum L. – H, EA – common in grasslands.

Hypericum richeri Vill. (= *Hypericum alpigenum* Kit.) – H, K-Eur (mont) – alpine grass on Bistricioara top and Ruscii.

Hypochoeris maculata L. – H, EA (kont) – sporadically in grasslands.

Hypochoeris radicata L. – H, Eur – common in grasslands.

Hypochoeris uniflora Vill. – H, Alp-Kárp – frequent in alpine zone.

Impatiens glandulifera Lindl. – Th, adv – sporadically along the river flow.

Impatiens noli-tangere L. – Th, K-Eur – frequent along waterflows, streamlets, in alder woods.

Inula salicina subsp. *salicina* L. – H, EA – rocky grasslands along the defile.

Iris nyaradiana Prodan – G – in rocky grasslands in the Maros defile between Neagra and Stanceni-Sólymok peak, Leul peak.

Iris variegata L. – G, Pont-Pan-Balk – Nyárády: on fields of Stanceni. Because he did not mention *I. nyaradiana*, that is spread, might be the same data!

Isopyrum thalictroides L. – G, K-Eur – in oak-hornbeam forest along the defile.

Jovibarba hirta (Just.) Opiz (= *Sempervivum hirtum* Just.) – Ch, Alp-Kárp-Balk – frequent in rocky grasslands.

Jovibarba sobolifera (Sims.) Opiz (= *Sempervivum soboliferum* Sims.) – Ch, Eur – Csűrös, Flora: present in the Kelemen Mts, but probably only on the other side, on limestone.

Juncus alpinus Vill. – H, cirk-b – well-heads peatbog on Dragus plateau.

Juncus articulatus L. – H, cirk-b – frequent in marshmeadows, mires, around pools.

Juncus inflexus L. (= *J. glaucus* Sibth.) – H, EA (med) – on wet habitats along the brook sides in Zebrac valley.

Juncus subnodulosus Schrank – HH, Eur – especially on wet soils of alder woods along the defile.

Juncus tenuis Schur – H, adv – frequent on humid, disturbed places, puddles.

Juncus thomassii Ten. – H, Dák-Balk – marshmeadows.

Juncus trifidus L. – H, Alp-Kárp – dominant in alpine grasslands, *en mass*.

- Juniperus communis** L. – M, cirk-b – on degraded soils along the defile.
- Juniperus communis** L. subsp. **nana** Syme (= *J. sibirica* Burgsd.) – N, cirk-b – montane pastures, subalpine, alpine heaths.
- Knautia arvensis** (L.) Coult. – H, Eur – common in grasslands and wet meadows.
- Knautia dipsacifolia** subsp. **dipsacifolia** Kreutzer – H, K-Eur – rare: spruce forests, near shepherd's path on the upper part of the Ratosnya valley (Mijlocul).
- Knautia longifolia** (W. et K.) Koch – H, Alp-Kárp – rare: alpine grass community along the Pietrosz saddle, downwards to Pietrosz valley.
- Koeleria macrantha** (Ledeb.) Schult. et Schult. (= *K. cristata* (L.) Pers.) – H, cirk-b – rocky grasslands along the defile.
- Lamiastrum galeobdolon** (L.) Ehrend. et Polat. (= *Galeobdolon luteum* Huds.) – H, K-Eur – frequent in forests.
- Lamium album** L. – H, EA – common.
- Lamium maculatum** L. – H, Eur – frequent in forests.
- Lamium purpureum** L. – Th, EA – around settlements.
- Lapsana communis** L. – Th-TH EA (med) – on clear-felled areas, clearings and wood margins.
- Larix decidua** Mill. – MM, Kárp-Sudet – seldom planted among spruce.
- Laserpitium krapfii** var. **alpinum** Cr. (= *L. alpinum* W. et K.) – H, K-Eur (alp) – alpine grass near top of Ruscii, Bistricioara; var. *marginatum* Pietrosz and rocky slopes above the Platz region.
- Laserpitium latifolium** L. – H, Eur – frequent in grasslands.
- Lathraea squamaria** L. – G, EA – only in oak-hornbeam woods on the western part of the defile.
- Lathyrus latifolius** L. – H, Med – grassland Andrásataka.
- Lathyrus pratensis** L. – H, EA – grasslands along the defile.
- Lathyrus sylvestris** L. – H, Eur (med) – frequent in the defile.
- Lathyrus tuberosus** L. – H, EA (med) – on landfields and grasslands.
- Lathyrus vernus** (L.) Bernh. – H, EA – frequent in beech and oak-hornbeam woods.
- Lembotropis nigricans** (L.) Griseb. (= *Cytisus nigricans* L.) – N, K-Eur – rocky grasslands along the defile.
- Lemma minor** L. – HH, kozm – in stagnant waters, pools along the river.
- Leontodon autumnalis** L. subsp. **pratensis** Csongor var. *alpigenus* Schur – H, EA – pasture on Dragus plateau.
- Leontodon autumnalis** L. subsp. **vulgaris** Csongor – H, EA – in grasslands.
- Leontodon hispidus** L. subsp. **danubialis** (Jacq.) Simonk. (= *L. danubialis* Jacq.) – H, EA – road side on the Ratosnya valley, Flora: Istenszéke plateau.
- Leontodon hispidus** L. subsp. **repens** Jáv. – H, EA – in grasslands.
- Leonurus cardiaca** L. – H, EA – sporadically on disturbed territories.
- Lepidium campestre** (L.) R. Br. – Th, Eur – around settlements.
- Leucanthemum vulgare** Lam. subsp. **leucanthemum** (= *Chrysanthemum leucanthemum* L.) – H, EA – common on meadows and grasslands, f. *nova* Nyár., Flora: in the defile between Déda and Ratosnya.
- Leucanthemum waldsteinii** (Schultz Bip.) Pouzar (= *Chrysanthemum rotundifolium* W. et K.) – H, Kárp (end) – characteristic of spruce and beech-spruce mixed woods, frequent along brook sides.
- Ligusticum mutellina** (L.) Cr. – H, Alp-Kárp-Balk – frequent in alpine grass, occurrence data in the Flora confused.
- Lilium martagon** L. – G, EA – sporadically in spruce and mixed woods.
- Linaria vulgaris** Mill. – H-TH, EA – common in the defile.

Linum catharticum L. – Th, Eur (med) – grassland Fintinele valley, Poiana Tarnitei, Diaconeasa: mires on fields of Dédabisztra.

Listera cordata (L.) R. Br. – G, cirk-b – spruce forests on the upper part of the Ratosnya valley central branch (Babele valley).

Listera ovata (L.) R. Br. – G, EA (med) – on wet meadows near the river flow.

Logfia arvensis (L.) Holub (= *Filago arvensis* L.) – Th, EA (med) – new data: rare: pioneer on dry sunny rocks on the southern slopes in the defile near Palotailva.

Loiseleuria procumbens (L.) Desv. – Ch, cirk (arkt-alp) – Flora: Saracin.

Lolium perenne L. – H, EA (med) – especially around settlements and road sides.

Lolium temulentum L. – Th, adv – on landfields.

Lonicera coerulea L. – M, cirk (arkt-alp) – Csűrös: alpine grasslands, hardly accessible, undisturbed territories, Pietrosz?

Lonicera nigra L. – M, Eur (mont) – new data: spruce forests on Zebrac valley.

Lonicera xylostemum L. – M, EA – in spruce and beech-spruce mixed forests.

Lotus corniculatus L. – H, EA – common in grasslands.

Lunaria rediviva L. – H, K-Eur-Med – new data: rare, beech wood on the way to Disznósető plateau.

Luzula alpino-pilosa (Chaix) Breistr. (= *L. spadicea* (All.) DC.) – H, cirk (arkt-alp) – on Pietrosz, no data in the Flora, mentioned only by Csűrös.

Luzula campestris (L.) Lam. et DC. – H, Eur (med) – on pastures, clearings.

Luzula luzuloides (Lam.) Dandy et Wilm. (= *L. albida* (Hoffm.) DC.) – H, Eur – characteristic of beech and spruce forests var. *erythranthema* Wallz. on subalpine screes and grasslands.

Luzula multiflora (Retz.) Lej. – H, cirk-b – common on the territory, montane wet meadows, pastures.

Luzula pallescens Swartz – H, EA – new data: grassland in Fintinele valley, pasture Capatina, near the hot well Szalárd.

Luzula pilosa (L.) Willd. – H, EA – sporadically in mixed woods.

Luzula spadicea (All.) Lam. – H, cirk (arkt-alp) – on the top of Pietrosz.

Luzula sudetica (Willd.) DC. – H, EA – new data: grassland at the bottom of Ciungeti, near well-heads peatbog on the Dragus.

Luzula sylvatica (Huds.) Gaudin – H, Eur – characteristic of spruce forests.

Lychnis flos-cuculi L. – H, EA – frequent on marshmeadows and mire vegetation along the river. Flora: closest occurrence in Görgényi Mts.

Lychnis viscaria L. (= *Viscaria vulgaris* Bernh.) – H, EA – frequent on rocky grasslands.

Lycopodium annotinum L. – Ch, cirk-b – frequent in mixed and spruce forests.

Lycopus europaeus L. – HH, EA – common in alder woods, mire community along the river.

Lycopus exaltatus L. – HH, EA (kont) – new data: alder woods along the defile.

Lysimachia nummularia L. – Ch, Eur – common on wet habitats.

Lysimachia thyrsofolia L. – H, cirk-b – Flora: Ratosnya.

Lysimachia vulgaris L. – H, Eur – common on wet habitats along the river.

Lythrum salicaria L. – H, kozm – marshmeadows and mire community along the river.

Maianthemum bifolium (L.) F. W. Schmidt – G, EA (bor) – frequent in forests.

Malus sylvestris Miller – M, EA – on the western part of the defile.

Matricaria trichophylla Boiss (= *M. tenuifolia* (Kit.) Simonk.) – Th, Balk – sporadically on landfields.

Matteuccia struthiopteris (L.) Tod. – H, cirk-b – frequent in alder woods, tall herbaceous communities especially along the river.

Medicago falcata L. – H, Med – common.

Medicago lupulina L. – Th-TH, EA – rocky grasslands along the defile.

- Medicago sativa** L. – H, EA – common on disturbed habitats.
- Melampyrum arvense** L. var. **pseudobarbatum** (Schur) Nyár. – Th, Eur (med) – Flora: present in the Kelemen Mts.
- Melampyrum bihariense** Kern. – Th, Dák-Balk – wood margins on the western part of the defile.
- Melampyrum saxosum** Baumg. – Th, Carp (end) – spruce forests on Bistricioara, Struniorul, Ruscii.
- Melampyrum sylvaticum** L. – Th, EA (mont) – not very frequent; in spruce forests: Ilva valley central branch.
- Melica ciliata** subsp. **ciliata** L. – H, K-Eur-Balk – rocky grassland on the southern slope on fields at Palotailva.
- Melica nutans** L. – H-G, EA (med) – in beech woods.
- Melica picta** Koch. – H-G, pont-med – rare, oak-hornbeam woods on fields at Ratosnya.
- Melica uniflora** Retz. – H, Eur – in oak-hornbeam and beech woods.
- Melilotus alba** Medic. – Th-TH, EA – frequent on proper habitats.
- Melilotus officinalis** (L.) Pallas – Th, EA – frequent on proper habitats.
- Melittis melissophyllum** L. – H, K-Eur – seldom in beech woods, oak-hornbeam woods along the defile and Bisztra valley.
- Menyanthes trifoliata** L. – HH, cirk-b – Dragulescu, Csürös: ? mire community.
- Mentha aquatica** L. – HH-H, EA – common on wet habitats.
- Mentha longifolia** (L.) Huds. – H, EA (med) – common on wet habitats.
- Mentha verticillata** L. – H, Eur – mire vegetation on fields of Dédabisztra.
- Mercurialis perennis** L. – H-G, Eur – seldom in beech woods.
- Milium effusum** L. – H, cirk-b – sporadically in forests.
- Minuartia verna** (L.) Hiern. – H-Ch, cirk-b – Flora: on Struniorul.
- Moehringia muscosa** L. – H K-Eur (mont) – not frequent: in shady rock-dents.
- Moneses uniflora** (L.) Gray (= *Pyrola uniflora* L.) – H, cirk-b – spruce forests, frequent on the Istenszéke.
- Mycelis muralis** (L.) Dum. – H, Eur – common in forests.
- Myosotis arvensis** (L.) Hill – TH, EA – frequent on proper habitats.
- Myosotis laxa** Lehm. subsp. **caespitosa** Hyl. (= *Myosotis caespitosa* Schultz) – Th-TH, cirk-b – Csürös: Pietrosz, northern slope.
- Myosotis scorpioides** L. (= *M. palustris* (L.) Hill) – H-HH, EA – marshmeadows along the river.
- Myosotis sylvatica** Hoffm. – H, EA – frequent in spruce forests.
- Myosoton aquaticum** (L.) Mönch (= *Stellaria aquatica* (L.) Scop.) – Th, EA (med) – frequent in humid areas.
- Nardus stricta** L. – H, Eur – *en mass*, invades the majority of the montane pastures.
- Nepeta cataria** L. – H, EA (med) – sporadically around settlements, road margins.
- Nepeta nuda** L. (= *N. pannonica* L.) – H, EA (kont) – bush communities, wood margins.
- Odontites rubra** (Baumg.) Opiz – Th, EA (med) – wet meadows along the river.
- Oenanthe aquatica** (L.) Poiret – HH, EA – in still waters along the river.
- Oenanthe banatica** Heuff. – H, Dák-Balk-Pan – new data: marshmeadows on fields of Stanceni, Flora: the nearest occurrence Régen and Marosfő.
- Oenothera biennis** L. – TH, adv – sporadically in the defile.
- Omalothea norvegica** (Gunn) Schultz Bip. et F. W. (= *Gnaphalium norvegicum* Gunn.) – H, EA (arkt-alp) – on clear-felled areas and stony places in the upper montane zone.
- Omalothea supina** (L.) DC. (= *Gnaphalium supinum* L.) – H, cirk (arkt-alp) – subalpine rubbled slopes on the upper part of Tihulet valley.

Omalotheca sylvatica (L.) Schultz Bip. et R. W. (= *Gnaphalium sylvaticum* L.) – H, cirk-b – common in rocky grasslands and wood margins.

Onobrychis viciaefolia Scop. – H, Med – common on grasslands.

Ononis arvensis L. (= *O. hircina* Jacq.) – H-Ch, EA – Dragulescu: ? in the defile.

Ononis pseudohircina Schur – Ch-H, Dák-Balk-Kauk – frequent in grasslands especially along the defile.

Orchis mascula L. – G, Eur (med) – sporadically in montane grasslands.

Orchis ustulata L. – G, Eur – frequent in grasslands.

Origanum vulgare L. – H, EA (med) – frequent in sunny grasslands.

Orobanche elatior Stuton (= *O. major* L.) – G, EA – common, not mentioned by Flora.

Orobanche lutea Baumg. – H, EA (med) – Flora: Ratosnya.

Orobanche picridis Schultz – H, Atl-med – Flora: Ratosnya.

Orthilia secunda (L.) House (= *Pyrola secunda* L.) – Ch, cirk-b – spruce forests in Fintinele valley, Flora: mentioned only on the other side of the Kelemen Mts (Voevodeasa).

Oxalis acetosella L. – H, cirk-b – common in spruce and mixed forests.

Oxalis corniculata L. – Th, EA (med) – seldom on disturbed territories along the defile.

Oxalis stricta L. (= *O. europaea* Jord.) – Th, Eur – seldom on disturbed territories along the defile.

Parietaria officinalis L. – H, K-Eur – Flora: present in the Kelemen Mts.

Paris quadrifolia L. – H, EA – sporadically in forests.

Parnassia palustris L. – H, cirk-b – Csűrös: in wet habitats.

Pastinaca sativa L. – TH-H, EA – disturbed, wet grasslands and road sides.

Pedicularis exaltata Besser – H, Eur (kont) – Csűrös: alpine grassland, hardly accessible, undisturbed territories.

Peucedanum oreoselinum (L.) Mönch – H, K-Eur-Med – frequent in grasslands.

Petasites albus (L.) Gaertn. – G, EA – especially along brook valleys and streamlets.

Petasites hybridus (L.) P. Gaertn. – H, EA – tall herbaceous communities along the river.

Petasites kablikianus Tausch (= *P. glabratus* (Maly) Borbás) – G, Kárp-Balk – Nyárády: along the river flow.

Phalaris arundinacea L. (= *Baldingera arundinacea* Dumort.) – HH, cirk-b – along the river flow and reed banks.

Phleum alpinum subsp. **commutatatum** L. – H, cirk (arkt-alp) – common in the subalpine and alpine grasslands.

Phleum phleoides (L.) Karsten – H, EA (kont) – common in grasslands.

Phleum pratense L. – H, EA (med) – common in wet meadows.

Phragmites australis (Cav.) Trin ex Steudel (= *P. communis* Trin) – G, kozm – reed banks along the river, especially on the way out from the defile.

Phyllitis scolopendrium (L.) Newm. – Ch, cirk-b – Dragulescu, Flora: between Déda and Ratosnya, not confirmed by the author.

Phyteuma tetramerum Schur – H, Kárp (end) – upper part of Ratosnya valley, central branch, along the water flow.

Phyteuma wagneri Kern. – H, Kárp (end) – Istenszéke plateau, Jezer lake, big population on the timber-line under Ruscii peak, and downwards to the Pietrosz valley.

Picea abies (L.) Karsten – MM, Eur – zonal and extrazonal occurrence on the whole territory up to 1700 m elevation, and also in plantations instead of beech and fir.

Picris hieracioides L. subsp. **sonchoides** Tell. (= *Picris sonchoides* Vest) – TH-H, EA (med) – in disturbed grasslands.

Pimpinella saxifraga L. – H, EA – common in grasslands.

Pinus cembra L. – MM, EA – sporadically on rocky places in the Negoiu and Pietrosz valley, cultivated down to spoil bank on Negoiu, and in several places in the montane zone.

Pinus mugo Turra – MM, Eur (alp) – forms big stands up to 1700 m elevation, on several places cut by shepherds and forestry workers.

Pinus sylvestris L. – MM, EA – big stand along the defile between Neagra and Mestera.

Plantago lanceolata L. – H, EA – common.

Plantago major L. – H, EA – common.

Plantago media L. – H, EA – in grasslands, dry slopes.

Platanthera bifolia (L.) Richard – G, EA (med) – grassland on Poiana Tarnitei, and wood margin on the central part of the Ratosnya valley (Mijlocul).

Pleurospermum austriacum (L.) Hoffm. – H, K-Eur (mont) – Csűrös: undisturbed alpine grassland, hardly accessible territory, Pietrosz?

Poa alpina L. var. **contracta** – H, cirk-b – subalpine grass at the bottom of Ciungeti.

Poa angustifolia L. (= *P. pratensis* subsp. *angustifolia* (L.) Gaudin – H, EA – sunny rocks in Saracin.

Poa annua L. – Th, kozm – on disturbed territories.

Poa chaixii Vill. – H, Eur (mont) – Csűrös: on the timber line.

Poa compressa L. – H, Eur – in grasslands.

Poa laxa Henke – H, EA (arkt-alp) – plateau between the Negoiu and Pietrosz peak (southern slope of the Pietrosz).

Poa nemoralis L. subsp. **nemoralis** – H, EA – f. *rigidula* Mert. et Koch. in beech and oak-hornbeam woods and rocky grasslands on the southern slopes between Palotailva and Dédabisztra, var. *agrotoides* A. et G. on rocky slopes, and var. *montana* Gaudin on subalpine grasslands in the upper part of Ratosnya valley.

Poa palustris L. – H, cirk-b – frequent on wet habitats.

Poa pratensis L. – H, cirk-b – common in grasslands.

Poa pratensis var. **alpestris** L. – H, cirk-b – beech wood in Saracin.

Poa trivialis L. – H, EA – on marshmeadows.

Polemonium coeruleum L. – H, cirk-b – rare: along the brook side in Ilva valley upper part, Flora: no data from this part of the Kelemen Mts.

Polygala amara L. – H, K-Eur (mont) – frequent on wet meadows.

Polygala comosa Schkuhr. – H, EA – frequent on sunny dry grasslands.

Polygala vulgaris L. – H, EA – frequent in grasslands.

Polygonatum odoratum (Mill.) Druce – G, EA (med) – oak-hornbeam and beech woods.

Polygonatum verticillatum (L.) All. – G, Eur – frequent in beech woods and mixed woods.

Polygonum aviculare L. – Th, kozm – frequent on proper habitats.

Polygonum bistorta L. – H, EA – along stagnant waters or wet meadows along the river.

Polygonum hydropiper L. – Th, EA (med) – frequent along the defile.

Polygonum lapathifolium L. – Th, kozm – frequent in the defile.

Polygonum mite Schrank. – Th, EA – wet meadows, stagnant water sides along the defile, no data in the Flora.

Polygonum persicaria L. – Th, EA – frequent.

Polypodium vulgare L. – G, cirk-b – frequent in shady rock-dents, Flora: no data.

Polystichum aculeatum (L.) Roth (= *P. lobatum* (Huds.) Chevall) – H, Eur (mont) – frequent in forests.

Polystichum braunii (Spenn) Fée – H, cirk-b – rare: spruce forest near Neagra, and Ratosnya valley central branch (Mijlocul).

Polystichum lonchitis (L.) Roth – H, cirk-b – new data: rock crevices in the Ratosnya valley central branch, upper part (Apa Neagra).

Populus ×canadensis Mönch – H – planted: Ratosnya, on the left side of the river.

Populus nigra L. – MM, EA – along the river.

Populus tremula L. – MM, EA – as a pioneer appears on clearings, degraded territories in the montane zone.

Potamogeton crispus L. – HH, kozm – in low stream of the river.

Potamogeton natans L. – HH, kozm – in low stream of the river.

Potamogeton pectinatus L. – HH, kozm – in low stream of the river.

Potamogeton perfoliatus L. – HH, kozm – in low stream of the river.

Potentilla anserina L. – H, kozm – around settlements on ditch sides.

Potentilla argentea L. – H, EA – sunny, dry slopes.

Potentilla aurea L. – H, Alp-Kárp – frequent on pastures, wood margins on the upper montane and subalpine zone.

Potentilla erecta (L.) Rausch. – H, EA (med) – marshmeadows along the river, water streams on forest margins.

Potentilla palustris (L.) Scop. (= *Comarum palustre* L.) – HH, cirk-b – well-head peatbog on Dragus and Cica.

Potentilla patula W. et K. – H, Pont-Pan – in rocky grasslands, no occurrence data in the Flora.

Potentilla recta L. – H, EA – rocky grasslands on the southern slopes of the defile.

Potentilla reptans L. – H, kozm – common on wet habitats around settlements.

Potentilla tabernaemontani Aschers. – H, Eur – Leul peak in the defile. Flora: between Ratacel and Dragus plateau.

Potentilla thuringiaca Bernh. – H, EA – seldom along the defile.

Primula minima L. – Ch, K-Eur (alp) – top of Negoiu and Pietrosz.

Primula veris L. (= *P. officinalis* (L.) Hill) – H, EA – on clearings, sunny slopes, deciduous forests.

Prunella laciniata L. – H, Med-K-Eur – not frequent: on grazed areas on fields of Neagra.

Prunella vulgaris L. – H, cirk-b – common in grasslands.

Prunus padus L. (= *Padus avium* Mill.) – MM, EA – seldom on the western part of the defile.

Prunus spinosa L. – M, EA – common in bush communities.

Pseudorchis albida (L.) Löve (= *Leucorchis albida* Meyer) – G, Eur (mont) – top of Bistricioara.

Pteridium aquilinum (L.) Kuhn – G, kozm – shows spreading tendency on clearings and grasslands.

Pulmonaria mollis W. ex H. subsp. **mollissima** (A. Kerner) Nyman (= *P. mollissima* A. Kerner) – H, EA – in deciduous forests.

Pulmonaria officinalis L. – H, Eur – in deciduous forests.

Pulmonaria rubra subsp. **eurubra** Schott – H, Kárp-Balk – in beech woods, beech-spruce mixed and alder woods.

Pulsatilla alba Reichenb. – H, Alp-Kárp – frequent on the mountain ridge; Pietrosz, Pietrice-lul, Rachitis.

Pyrola minor L. – H, cirk-b – not frequent: spruce forests.

Pyrola rotundifolia L. – H, cirk-b – seldom in spruce forests.

Pyrus pyraster (L.) Burg. – MM, Eur – sporadically in the montane zone.

Quercus petraea (Mattusch.) Liebl. – MM, Eur – oak-hornbeam woods on the western part of the defile, sporadically also in beech woods.

Quercus robur L. – MM, Eur – sporadically in oak-hornbeam woods on the western part of the defile, solitaire individuals on pastures on fields of Galonya.

Ranunculus acris L. – H, EA (med) – common on wet meadows.

Ranunculus carpathicus Herlich. – G, Kárp (end) – beech woods in Visa, Bistra valleys, Zapodia cu pod, Ratosnya valley (Mijlocul).

- Ranunculus cassubicus** L. – H, Eur (kont) – frequent on wet habitats.
- Ranunculus ficaria** L. (= *Ficaria verna* Huds.) – H-G, EA (med) – in deciduous forests.
- Ranunculus flammula** L. f. **serratus** – H, EA – marshmeadows on fields of Mestera and Stanceni.
- Ranunculus nemorosus** DC. var. **Crantzii** (Schur) Jáv. – H, Eur (med) – Negoiu.
- Ranunculus platanifolius** L. – H, Eur (mont) – rare: clear-felled area in the upper part of the Ratosnya valley, central branch (Mijlocul), downwards to the Pietrosz valley in tall herbaceous community.
- Ranunculus polyanthemus** L. – H, EA (kont) – frequent in grasslands.
- Ranunculus repens** L. – H, EA (med) – common.
- Raphanus raphanistrum** L. – Th, Med – on landfields around settlements.
- Rezeda lutea** L. – TH-H, EA (med) – frequent on disturbed habitats, road margins.
- Rhinanthus angustifolius** Gmel. (= *Rh. glaber* Lam.) – Th, EA – sporadically in grasslands.
- Rhinanthus borbasii** (Dörfl.) Soó – Th, K-Eur (kont) – grasslands on fields of Neagra and Mestera.
- Rhinanthus minor** (L.) Amoen – Th, Eur – *en mass* in grasslands.
- Rhodiola rosea** L. (= *Sedum roseum* (L.) Scop.) – Ch, cirk (arkt-alp), rare: Pietrosz peak, several individuals.
- Rhododendron myrtifolium** Schott. et Kotschy (= *R. kotschyi* Simonk.) – N, Kárp-Balk – forms big stands in the alpine healts with *Juniperus nana*.
- Ribes petraeum** Wulfen – M, EA (mont) – Negoiu valley close to the spoil bank between Negoiu peak and Pietricelul in alpine pine community.
- Ribes uva-crispa** L. (= *R. grossularia* L.) – M, EA – in beech-, and mixed woods.
- Robinia pseudoacacia** L. – MM, adv – seldom, a few individuals along the defile.
- Rorippa austriaca** (Cr.) Bess. – H, K-Eur – on fields of Neagra.
- Rorippa pyrenaica** (L.) Reichenb. – H, Med – Istenszéke plateau.
- Rorippa sylvestris** (L.) Bess. – H, Eur – frequent along the river flow and brook sides.
- Rosa canina** L. – N, Eur – common.
- Rosa pendulina** L. – N, K-Eur – frequent on proper habitats.
- Rubus caesius** L. – H-N, EA (med) – common.
- Rubus ×chlorostylus** N. Boul. (= *R. hirtus* × *rivularis*) – N – Istenszéke plateau.
- Rubus hirtus** W. et K. var. **grandiflorus** – N, Eur – Istenszéke plateau.
- Rubus idaeus** L. – N, cirk-b – common in the montane zone, *en mass* on clear-felled areas.
- Rubus ×longiramulus** Sabr. (= *R. rivularis* × *serpens*) – N – Flora: Dédabisztra.
- Rubus rivularis** Müll. et Wirtg. – N, K-Eur – Flora: var. *incultus*, Dédabisztra, var. *obovatus*, Istenszéke plateau.
- Rumex acetosa** L. – H, kozm – common in grasslands.
- Rumex acetosella** L. – H, kozm – common on rocky places, rubbled slopes and pastures.
- Rumex alpinus** L. – H, Alp-Kárp-Balk – frequent on proper habitats: along the brook sides, and wet pastures, in spreading because of grazing.
- Rumex arifolius** All. – H, EA (mont) – grazed territory on Istenszéke.
- Rumex crispus** L. – H, EA – common in disturbed territories.
- Rumex obtusifolius** L. – H, Eur – common on wet habitats.
- Rumex patientia** L. – H, Pont-Med – ditch sides, around settlements.
- Sagina apetala** Ard. subsp. **apetala** (= *S. ciliata* Fries) – Th, Atl-Med – Istenszéke, grazed territories.
- Salix alba** L. – MM, EA – common along the river.
- Salix bicolor** Willd. (= *S. phlycifolia* non L.) – Ch, EA (mont) – Zólyomi: on Cica plateau.
- Salix caprea** L. – M, EA – common on the whole territory.
- Salix cinerea** L. – M, EA – along the river flow.

- Salix fragilis* L. – MM-M, EA – along the river flow.
Salix pentandra L. – MM, EA – bush communities along the river.
Salix purpurea L. – M, EA – along the river flow.
Salix triandra L. – M, EA – along the river flow.
Salix viminalis L. – M, EA – frequent along the river.
Salvia glutinosa L. – H, EA – sporadically along waterflows, wood margins.
Salvia nemorosa L. – H, K-Eur – on dry disturbed grasslands, road margins.
Salvia pratensis L. – H, K-Eur (med) – common on proper habitats.
Salvia verticillata L. – H, EA (med) – disturbed rocky grasslands along the defile.
Sambucus ebulus L. – H, EA (med) – ditch sides around settlements.
Sambucus nigra L. – M, Eur – alder woods, sporadically in the defile.
Sambucus racemosa L. – M, EA (bor) – sporadically in brook valleys.
Sanguisorba minor Scop. – H, EA – new data: very rare: grass fields on Ungurasul Mare.
Sanicula europaea L. – H, Atl-Med – frequent in beech woods.
Saponaria officinalis L. – H, EA (med) – wet habitats in the defile.
Saxifraga carpatica Reichenb. – H, Kárp-Balk – Csűrös: Pietrosz, northern slope.
Saxifraga paniculata Mill. (= *S. aizoon* Jacq.) – Ch, EA (arkt-alp) – rocky grasslands on Sóllymok, Leul peaks and Pietrosz.
Saxifraga stellaris L. – Ch, EA (arkt-alp) – around watersheds, streamlets in the subalpine, alpine zone.
Scabiosa ochroleuca L. var. *ochroleuca* – H, EA (kont) – common on proper habitats, var. *polymorpha* rare: way out from Zebrac valley.
Scirpus lacustris L. subsp. *lacustris* (= *Schoenoplectus lacustris* (L.) Palla) – HH-G, kozm – seldom in reed banks.
Scirpus sylvaticus L. – HH, cirk-b – common in wet habitats, mires.
Scleranthus annuus L. – Th, EA – frequent on rocky places.
Scopolia carniolica Jacq. – G, Eur (mont) – seldom on clearings and wood margins.
Scorzonera purpurea L. subsp. *rosea* (W. et K.) Nyman (= *S. rosea* W. et K.) – H, EA – Bistricioara, Flora: many places in the alpine zone.
Scrophularia nodosa L. – H, EA – frequent on proper habitats.
Scrophularia scopolii Hoppe – H, Pont-Med – frequent on margins of spruce and beech forests.
Sedum acre L. – Ch, EA – rocky grasslands in the defile.
Sedum alpestre Vill. – Ch, Eur (alp) – rocky territories in alpine zone.
Sedum annuum L. – Th, EA (arkt-alp) – rocky grasslands in the defile.
Sedum hispanicum L. – Th, Med – common in rocky grasslands.
Sedum sexangulare L. – Ch, K-Eur-med – only in rocky grassland in the defile on fields of Dédabisztra.
Sedum spurium M. B. – Ch, adv (Kauk) – rocky grassland on the southern slopes in the defile on fields of Palotailva.
Sedum telephium L. subsp. *maximum* (L.) Krockner (= *S. maximum* (L.) Hoffm.) – H, EA (med) – frequent in rocky grasslands.
Sempervivum marmoreum Griseb. (= *S. schlehanii* Scott.) – Ch, Kárp-Balk – new data: rocky grassland between Neagra and Stanceni.
Sempervivum montanum L. – Ch, Eur (mont) – Csűrös, Zólyomi: rocky place on the northern part of Pietrosz.
Sempervivum tectorum L. – Ch, Eur (mont) – sporadically in rocky grasslands along the defile.
Senecio aquaticus Hill subsp. *barbareifolius* (Wimm. et Grab.) Walters – H, K-Eur – alder woods along the river flow.

- Senecio erucifolius** L. – H, EA – along the river flow?
- Senecio fluviatilis** Wallz. – H, Eur – in tall herbaceous communities.
- Senecio glaberrimus** (Roch.) Simonk. – H, Kárp-Balk – rocky grass on Negoiu top, Flora: Retitis.
- Senecio incanus** subsp. **carniolicus** L. (= *S. carniolicus* (Willd.) Br-Bl.) – H, Alp-Kárp – Pietrosz peak.
- Senecio jacobaea** L. – H, EA – common in clear-felled areas and brook valleys.
- Senecio nemorensis** L. subsp. **fuchsii** (Gmel.) Celak (= *S. fuchsii* Gmel.) – H, EA – spruce forests, clearings.
- Senecio nemorensis** L. subsp. **nemorensis** L. – H, EA – frequent on clearings and clear-felled areas.
- Senecio papposus** (Reichenb.) Less – H, Kárp-Balk – Csűrös: alpine grassland on hardly accessible, undisturbed territories, Pietrosz?
- Senecio rupester** W. et K. – Th-TH, Alp-Kárp-Balk – Flora: present in the Kelemen Mts.
- Senecio sylvaticus** L. – Th, Eur – in clear-felled areas.
- Senecio vulgaris** L. – Th, EA – common in grasslands.
- Seseli libanotis** (L.) Koch var. **sibirica** (= *Libanotis montana* Cr.) – H, EA (kont) – frequent on rocky grasslands along the defile.
- Setaria pumila** (Poir.) Schultes (= *S. glauca* (L.) Beauv.) – Th, kozm – around settlements.
- Silene alba** (Mill.) E. H. Krause (= *Melandrium album* (Mill.) Garcke – TH, EA – common.
- Silene armeria** L. – Th, Med (est) – rocky grasslands along the defile.
- Silene dioica** (L.) Clairv. (= *Melandrium rubrum* (Weig.) Garcke) – H, EA – common on road margins in brook valleys, wood margins, alder woods, shrubby territories.
- Silene dubia** Herbich. f. **Kelemenensis** Zap. – H, Kárp (end) – on rubbled slopes along the defile, seldom on grasslands.
- Silene italica** (L.) Pers. subsp. **nemoralis** (W. et K.) Nyman (= *S. nemoralis* W. et K.) – H, Alp-Kárp-Balk – in deciduous forests.
- Silene nutans** L. – H, EA – on rubbled slopes and grasslands.
- Silene vulgaris** (Mönch) Garcke subsp. **alpina** Lam. – H, Alp-Kárp-Balk – new data: around the lake Lezer, Pietrosz saddle and downwards to the Pietrosz valley.
- Silene vulgaris** (Mönch) Garcke subsp. **vulgaris** Lam. – H, EA (med) – sporadically on wood margins along the defile.
- Sisymbrium officinale** (L.) Scop. – Th, EA (med) – on landfields and road margins.
- Solanum dulcamara** L. – Ch, EA – disturbed wet habitats, alder woods.
- Solanum nigrum** L. – Th, kozm – around settlements.
- Soldanella hungarica** Simonk. subsp. **major** (Neih.) S. Pawl. (= *S. major* (Neih.) Vierh.) – H, K-Eur (mont) – frequent in mountain pine communities, margin of spruce forests.
- Soldanella montana** Willd. – H, K-Eur (alp) – Flora: rare: Tatarului plateau.
- Solidago canadensis** L. – H, adv – not frequent: only mire vegetation on fields of Dédebisztra.
- Solidago virgaurea** L. – H, cirk-b – frequent from the defile to the alpine zone.
- Sorbus aucuparia** L. – MM, Eur – common in the montane zone.
- Spiraea chamaedryfolia** L. (= *S. ulmifolia* Scop.) – N, EA – frequent on rocky slopes, screes.
- Stachys alpina** L. – H, K-Eur (mont) – on grasslands in the montane zone.
- Stachys officinalis** (L.) Trevisan (= *Betonica officinalis* L.) – H, EA (med) – grasslands, wet meadows in the Maros defile.
- Stachys palustris** L. – H, cirk-b – in mire vegetation and alder woods along the river flow.
- Stachys sylvatica** L. – H, EA – common in beech woods and mixed forests.
- Stellaria graminea** L. – H, EA (med) – sporadically in grasslands.

Stellaria holostea L. – H-Ch, EA – rare in oak-hornbeam woods on the western part of the defile, spruce forest in Ilva valley, central branch.

Stellaria media (L.) Vill. – Th, kozm – common.

Stellaria nemorum L. – H, Eur – in spruce forests, montane grazed territories.

Streptopus amplexifolius (L.) DC. – G, cirk-b – sporadically in spruce forests.

Symphytum cordatum W. et K. – H, Kárp-Balk – frequent, characteristic species of beech woods.

Symphytum officinale L. – H, EA – common on wet habitats.

Symphytum tuberosum L. – H, K-Eur – seldom in beech woods.

Tanacetum corymbosum (L.) Schultz (= *Chrysanthemum corymbosum* L.) – H, EA (med) – oak-hornbeam woods and wood margins, bush communities along the defile.

Tanacetum vulgare L. (= *Chrysanthemum vulgare* (L.) Bernh.) – H, EA – along the defile near fences, ditch sides.

Taraxacum nigricans (Kít.) Reichenb. – H, Kárp-Balk-Sudet – Csűrös: along brook valleys at the bottom of Pietrosz.

Taraxacum officinale Weber – H, EA (med) – common.

Taxus baccata L. – M, Eur (mont) – Ábrán, P.: Tihu valley in beech-spruce mixed wood, probably sporadically more individuals.

Telekia speciosa (Schreb.) Baumg. – H, Kárp-Balk-Kauk – common, in big stands along the river flow in tall herbaceous communities, brook valleys and clear-felled areas.

Teucrium chamaedrys L. – Ch, Med-K-Eur – rocky grasslands on fields of Palotailva.

Thalictrum aquilegifolium L. – H, Eur – common in tall herbaceous communities along brook valleys.

Thalictrum flavum L. – H, EA – wet meadows along the river.

Thalictrum lucidum L. – H, K-Eur – wet meadows along the defile.

Thelypteris phegopteris (L.) Slasson (= *Phegopteris polyploides* Fée) – G, cirk-b – in spruce forests.

Thesium alpinum L. – H, Eur (alp) – alpine grass on the Bistricioara top.

Thlaspi arvense L. – Th, EA (med) – on landfields around settlements.

Thlaspi dacicum Heuff. – Th, Kárp (end) – Csűrös: alpine grass, Flora: Pietrosz peak.

Thymus alpestris Tausch – Ch, K-Eur – rocky slopes on Negoiu, Bistricioara.

Thymus comosus Heuff. – Ch, Kárp (end) – rocky grasslands in the defile.

Thymus glabrescens Willd. – Ch, Pont-Pan – f. *csikensis* Lyka, f. *nyaradyanus* Lyka, frequent in rocky grasslands and sunny slopes.

Thymus pannonicus All. (= *Th. marschalianus* Willd.) – Ch, EA (kont) – rocky grasslands along the defile.

Thymus praecox Opiz subsp. **polytrichus** (A. Kerner ex Borbás) Jalas (= *Th. balcanus* Borbás) – Ch, Kárp-Balk – in *Alnus viridis* communities, top of Bistricioara.

Thymus pulcherrimus Schur f. **pulcherrimus** – Ch, Kárp (end) – Flora: Pietricelul.

Thymus pulegioides L. subsp. **montanus** W. et K. – Ch, K-Eur – lake Iezer, Capatina plateau, grasslands in Fintinele valley, probably is more frequent in montane grasslands.

Tilia cordata Mill. – MM, Eur – sporadically in the montane zone.

Tilia platyphyllos Scop. – MM, K-Eur – along the river near hot watersheds at Andráspatyka.

Torilis ucrainica Spreng. – Th-TH, Pont-Med – new data: around settlements.

Tragopogon pratensis L. subsp. **orientalis** (L.) Celak (= *T. orientalis* L.) – TH, EA – in grasslands.

Traunsteineria globosa (L.) Reichenb. (= *Orchis globosa* L.) – G, K-Eur (mont) – frequent in grasslands.

Trifolium alpestre L. – H, Eur (med) – grasslands in the montane zone.

- Trifolium arvense** L. – Th, EA (med) – sunny slopes in the defile.
Trifolium aureum Pollich (= *T. strepens* Cr.) – Th, EA (med) – sunny slopes in the defile.
Trifolium campestre Sch.-Trif. – Th, Eur – common in grasslands.
Trifolium dubium Sibth. – Th-TH, Eur (med) – new data: wet meadow on fields of Stanceni.
Trifolium hybridum L. – H, Eur (med) – grasslands along the defile.
Trifolium lupinaster L. – H, EA (kont) – Csűrös: alpine grasslands, hardly accessible, undisturbed territory.
Trifolium medium L. – H, EA – common in grasslands.
Trifolium montanum L. – H, EA (kont) – common in grasslands and clearings.
Trifolium ochroleucum Huds. – H, Med-K-Eur – sporadically in rocky grasslands on the southern slopes of the defile.
Trifolium pannonicum Jacq. – H, Pont-Med – along the defile only up to 1000 m.
Trifolium pratense L. – H-TH, EA – common.
Trifolium repens L. – H, EA – common.
Triglochin maritima L. – H, kozm – mire vegetation on fields of Dédabisztra.
Triglochin palustre L. – H, cirk-b – mire vegetation on fields of Dédabisztra.
Trisetum flavescens (L.) Beauv. – K-Eur (med) – not frequent on the territory: wet meadows on fields of Stanceni and Neagra.
Trollius europaeus L. – H, Eur – rare: in alpine juniper communities, Bistricioara, close to the Maria Teresia road.
Tussilago farfara L. – G, EA – common.
Typha latifolia L. – HH, kozm – along the river bank, margins of gently flowing waters.
Ulmus glabra Huds. (= *U. scabra* Mill.) – M, EA – frequent on proper habitats.
Ulmus minor Mill. (= *U. carpinifolia* G. Suckow) – M, K-Eur (med) – sporadically in the defile.
Urtica dioica L. – H, kozm – common.
Urtica urens L. – Th, kozm – common.
Utricularia australis R. Br. (= *Utricularia neglecta* Lehm.) – H, Atl-med – Flora: Ratosnya.
Vaccinium myrtillus L. – N, cirk-b – frequent in spruce forests, grazed grasslands.
Vaccinium oxycoccus L. (= *Oxycoccus quadripetalus* Gilib.) – Ch, cirk-b – Zólyomi: peat-bog on Cica plateau.
Vaccinium uliginosum L. – Ch, cirk (arkt-alp) – frequent in alpine healts.
Vaccinium vitis-idaea L. – Ch, cirk-b – frequent in spruce forests and alpine healts.
Valeriana officinalis L. – H, EA (med) – seldom in deciduous forests.
Valeriana sambucifolia Mikan – H, K-Eur – along brook sides, Flora: no occurrence data.
Valeriana tripteris L. – H, K-Eur (mont) – frequent on wood margins, clearings.
Veratrum album L. – G, EA – frequent on pastures.
Veratrum lobelianum Bernh. – G, EA – frequent in alpine pastures and healts.
Veratrum nigrum L. – G, EA (kont) – beech wood in Visa valley, eastern side.
Verbascum lychnitis L. – TH, Eur – frequent in rocky grasslands, sunny slopes.
Veronica anagallis-aquatica L. – H-HH, cirk-b – around watersheds and streamlets.
Veronica austriaca L. subsp. **teucrium** (L.) D. A. Webb. (= *V. teucrium* L., *V. crinita* Kit.) – H, K-Eur – southern slope (right side of the road) on fields of Stanceni.
Veronica baumgartenii Roemer ex Schultes – H, Kárp-Balk – rock crevices on Pietrosz, Ne-goiu, not mentioned by the Flora.
Veronica beccabunga L. var. **limosa** – HH, EA – Flora: on Rachitis.
Veronica chamaedrys L. – H, EA – common in grasslands in the montane zone.
Veronica fruticans Jacq. (= *V. saxatilis* Scop.) – H-Ch, EA – rock crevices on Bistricioara top, Istenszéke, upper part of Tihulet valley, Flora: Pietrosz, Cerbuc.
Veronica officinalis L. – Ch, EA – common in spruce and spruce-beech mixed woods.

- Veronica serpyllifolia** L. – H, kozm – common, f. *rotundifolia*, pasture on Dragus.
- Veronica spicata** L. subsp. *orchidea* (Cr.) Hayek (= *V. orchidea* Cr.) – H, Pont-Med – on rocky grasslands on the southern slopes of the defile.
- Veronica urticifolia** Jacq. – H, K-Eur (mont) – common in spruce forests.
- Veronica verna** L. – Th, EA (med) – on fields of Dédabiztra.
- Viburnum lantana** L. – M, Med-K-Eur – rare: in woods on the western part of the defile.
- Viburnum opulus** L. – M, cirk-b – in alder woods along the defile.
- Vicia cracca** L. – H, EA – in grasslands.
- Vicia sativa** L. subsp. *nigra* (L.) Ehrh. – Th, EA (med) – sporadically along the defile.
- Vicia sepium** L. – H, EA – common in alder woods and grasslands.
- Vicia sylvatica** L. – H, EA – not very frequent: wood margins in Ilva valley, central branch.
- Vinca minor** L. – Ch, K-Eur-Med – oak-hornbeam woods on the western part of the defile.
- Vincetoxicum hirundinaria** Medic. (= *Cynanchum vincetoxicum* (L.) Pers. – H, Eur (med) – on sunny slopes along the defile.
- Viola arvensis** Murray – Th, EA – clear-felled area on Zebrac valley, probably more frequent.
- Viola biflora** L. – H, cirk-b – Pietrosz peak, brook side vegetation on the upper part of Ratosnya valley.
- Viola canina** L. – H, EA – frequent in pastures.
- Viola dacica** Borbás – H, Kárp-Balk – new data: wood margin on the lower part of Saracin valley.
- Viola declinata** W. et K. – H, Kárp-Balk – frequent in grasslands, pastures from 1200 m high, at the bottom of Struniorul population with white flowers.
- Viola hirta** L. – H, EA – common.
- Viola montana** L. – H, EA – Istenszéke plateau.
- Viola odorata** L. – H, Atl-Med – common in the montane zone.
- Viola reichenbachiana** Jord. ex Bureau (= *V. sylvestris* Lam.) – H, EA – in deciduous forests.
- Viola suavis** Bieb. var. *cyanea* (= *V. cyanea* Celak) – H, EA (kont) – new data: spruce forest in Fintinele valley.
- Viola tricolor** L. subsp. *subalpina* Gaudin (= *V. saxatilis* Schmidt) – TH-H, EA – pasture on Disznós-tető and Bradului plateau.
- Viola tricolor** L. subsp. *tricolor* Jord. – TH, EA – frequent on meadows and grasslands.
- Viscum album** L. – E, EA – on poplars.
- Woodsia ilvensis** (L.) R. Br. – G, cirk (arkt-alp) – sporadically on shady rocks in the central part of the defile, Flora: on Pietricelul.

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