

FLORA OF THE ŐR-HEGY (GERECSE MTS, HUNGARY)

K. PENKSZA

*Department of Botany and Plant Physiology, Agricultural University
H-2103 Gödöllő, Hungary*

Floristic data, collected by the author since 1984 on the Őr-hegy, near Bajna, Gerecse Mts, Hungary, are presented. It covers 459 vascular plants and 22 moss species. The species list given here is supplemented with former data of other authors.

Key words: floristics, check-list, Gerecse Mts, Hungary

INTRODUCTION

Due to the accelerated environmental changes there is an increasing demand for the detection of the changes in the flora and vegetation of certain areas. The questions if a species become extinct or not, and which species appear or disappear are of high importance. This paper, dealing with the flora of the Őr-hegy, near Bajna, Gerecse Mts, presenting the results of 8 years of regular field-work, provides a basis for later comparative studies.

The first detailed botanical survey of the Gerecse Mts was done by FEICHTINGER (1865), who reported 65 species occurring in the area of the Őr-hegy and Bajna. His monography on the Esztergom county (FEICHTINGER 1899) and further contributions to the flora of the Gerecse Mts (KERNER 1857, HILLEBRANDT 1858, FRANK 1870, GÁYER 1916, RÉDL 1926, PAPP 1937) do not contain new data for the Őr-hegy.

BOROS carried out detailed field-work in the area for more than 20 years. He consequently inspected all significant sights that seemed to be promising. He investigated the Őr-hegy twice (BOROS 1938, 1952). Some mosses, including the species of the cave of the hill, and several vascular plants were recorded by him. He also published new data for the Gerecse Mts (BOROS 1940, 1944) and gave the description of the vegetation (BOROS 1953).

The *Mercuriali-Tilietum* forests of the Gerecse Mts were investigated by KOMLÓDI (1958) and FEKETE and JÁRAI-KOMLÓDI (1962), the rocky grasslands by SEREGÉLYES (1974, 1986), the bush forests by TÖRÖK (1977), and TÖRÖK and PODANI (1982), the *Orno-Quercetum* and *Quercetum petraeae-cerris* associations by SZOLLÁT (1987) and the *Quercu-Carpinetum* by SZÁRAZ (1981). SEREGÉLYES (1977) published floristic data as well. In addition to the description of

the associations of the area SZOLLÁT (1980) also reported floristic data on the group of hills Gete. Species occurring on the Ór-hegy and which are new for the Gerecse Mts and for the No 8377 area of the Central European Flora Catalogue were published earlier (PENKSZA 1991). Latest data are presented on the western part of the mountains by MATUS (1993).

MATERIAL AND METHODS

The investigated area, the Ór-hegy belongs to the hilly region between Zsámbék and Bajna in the Gerecse Mts (LÁNG 1955, BULLA 1962). Most of the hill is consisted of "Dachstein" limestone interrupted by "Hárshegy" sandstone in some places. The Ór-hegy limestone mount was asymmetrically uplifted from the upper Oligocene sandstone and clayey deposit covered by loess. The western side is higher where the limestone layers are uplifted to the surface. The eastern slope is characterized by steep dissections and is depressed under the Oligocene-Eocene layers.

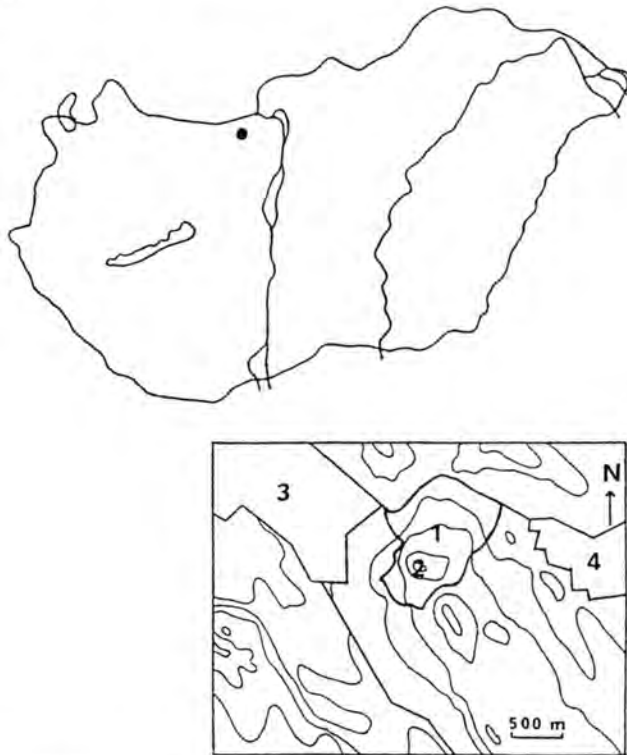


Fig. 1. Geographical location of the investigated area. 1: the investigated area, 2: the Ór-hegy, 3: Bajna, 4: Epöl

The northern border of the investigated area is the Bajna–Epöl highway, in other directions it extends to the arable lands (Fig. 1). The regular field-work started in 1984. Comparative specimens of the herbarium of the Botanical Department of the Hungarian Natural History Museum (BP) were used for the identification of certain species. The species names are followed by references if they were found formerly by other authors. Natural conservation ranks were established according to SIMON (1992). For identification of the *Rosa* species FAC-SAR's monograph (1993) was used. Nomenclature principally follows SIMON's (1992) for the vascular plants and PRISZTER's (1980) for some author names, while ORBÁN and VAJDA (1983) was used for the mosses.

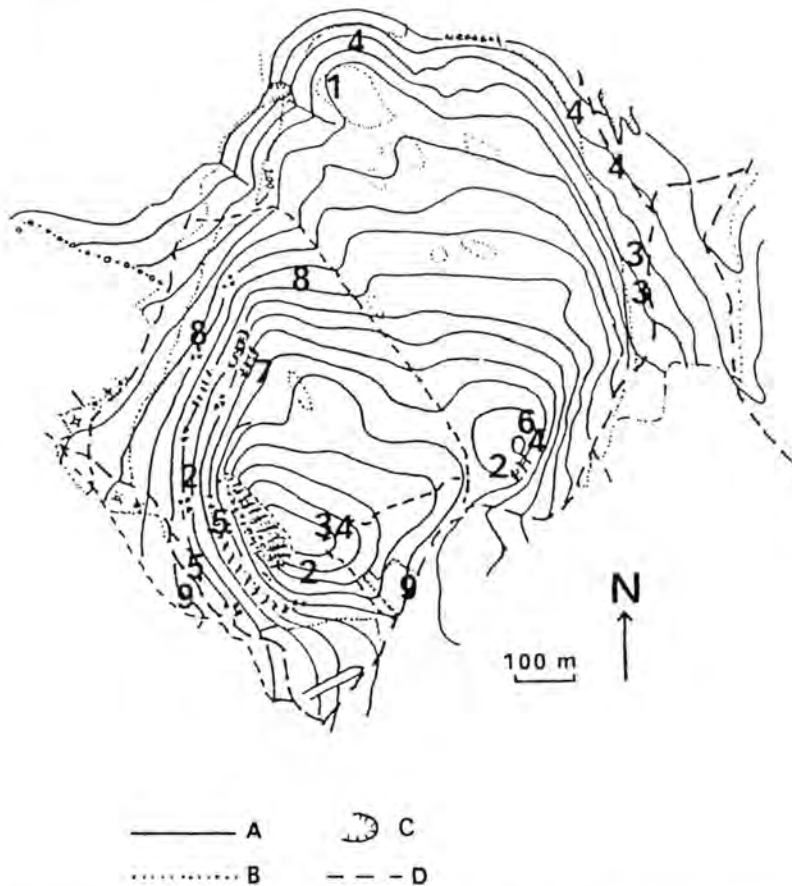


Fig. 2. The range of some protected and rare species of the area. A: contour line, B: border of grasslands, C: mined area, D: pathway, 1: *Anemone sylvestris*, 2: *Limodorum abortivum*, 3: *Phlomis tuberosa*, 4: *Orchis purpurea*, 5: *Epipactis helleborine*, 6: *Pulsatilla grandis*, 7: *Cirsium pannonicum*, 8: *Acer tataricum*, 9: *Ononis pusilla*

RESULTS AND DISCUSSION

Altogether 459 vascular plant species were found in the investigated area. Among mosses 13 species were identified.

FEICHTINGER (1865, 1899) reports on several species, which I have not found yet, they can be considered extinct from the area, but can be found in the collection of the Botanical Section. These are: *Trigonella monspeliaca* L., *Malcolmia africana* (L.) R. Br., *Teucrium botrys* L., *Cerastium brachypetalum* Desp. and *Valerianella carinata* Lois.

However, FEICHTINGER mentioned some species that I could find neither in the area, nor in the herbarium of the Botanical Department: *Carex supina* Wahlbg., *Festuca drymeia* M. et K., *Ornithogalum refractum* Kit. ex Willd., *Myosotis sylvatica* Hoffm., *Peucedanum arenarium* W. et K. and *Thesium bavarum* Schrank. It is most probable that these species have become extinct.

Three of the species mentioned by BOROS (*Verbascum speciosum* Schrad., *Geranium rotundifolium* L. and *Hieracium pallidum* Biv.) were not found later.

BOROS (1938) reported *Cotoneaster tomentosus* (Ait.) Lindley occurring on the Ór-hegy. Later in his phytogeographical work he pointed out that the area of this species coming from the direction of the Vértes Mts to stops at Kakukk-hegy near Szomor (BOROS 1953). However, a large population of *Cotoneaster tomentosus* (Ait.) Lindley can be found now on the Ór-hegy. *Cotoneaster niger*

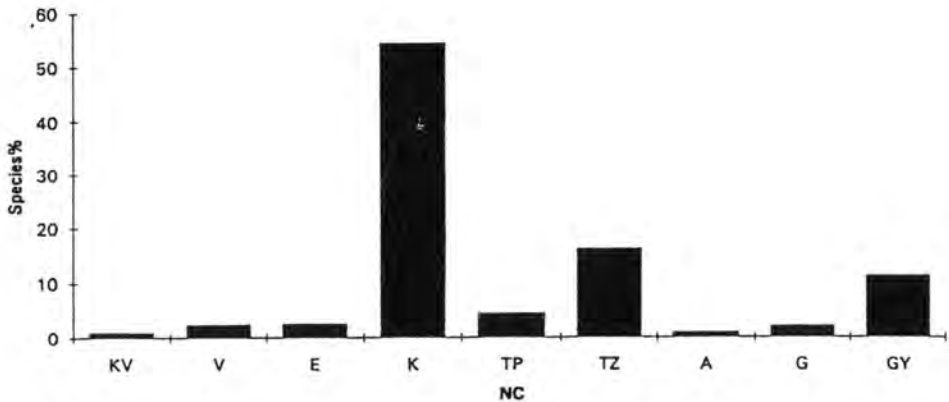


Fig. 3. The evaluation of nature conservation ranks (SIMON 1992) of the species occurred on the Ór-hegy

(Thunbg.) Fr. also occurs sporadically on the steeper western and southern slopes covered by shrub forest associations.

In 1986 a specimen of *Asplenium adiantum-nigrum* L. was found on the steep eastern slope of the Ór-hegy. Its occurrence was probably due to the acidic soil formed locally on a sandstone spot upon the limestone. Although this species could be a new data for the mountains unfortunately neither this nor other specimens have not been found since 1986.

A very interesting new data is the occurrence of *Acer tataricum* L. (PENKSZA 1991) on the western slope and on the ridge of the hill. It was presumably more widespread on the hill before the deforestation, and it is probable that the *Aceri tatarico-Quercetum* association was also common in the Gerecse Mts. This site is an additional new one to the area of the species presented by ZÓLYOMI (1957) and ZÓLYOMI and FEKETE (1994). Among the so-called loess species two major populations of *Phlomis tuberosa* L. can be found, one of them surprisingly right on the top, proving that the hill must have been covered by loess. Other characteristic loess species like *Taraxacum serotinum* (W. et K.) Poir. and *Cytisus austriacus* L. occur in large numbers.

In the most xerophytic rocky grasslands of the Ór-hegy, *Festuca valesiaca* Schleich. replaces *Festuca pallens* Host. Among xerophytic grasses *Festuca rupicola* Heuff. does not grow anywhere, as it occurs always in more mesophytic grasslands at lower temperature. This consequence can also be drawn from the investigations of the rocky grasslands on the Fehér-szirt near Kesztlőc (PENKSZA 1993).

Figure 2 shows the range of some protected and rare species of the area.

Figure 3 shows the evaluation of nature conservation ranks of the species of the Ór-hegy. Species occurring near arable lands – mainly weeds – are omitted. The figure indicates that the Ór-hegy is an area of high botanical value, it should definitely be protected, being rich in species although its area is quite small.

Acknowledgements. I am grateful to Béla Dános and András Horánszky for giving me the opportunity to study this area and for revising my identifications of vascular plants. Thanks are due to Miklós Rajczy for the identification of moss species.

LIST OF SPECIES

MOSESSES

Abietinella abietina (Hedw.) Fleisch.
Amblystegium juratzkanum Schimp.
Bryum pallens Sw. (BOROS 1938)
Camptothecium lutescens (Hedw.) B. S. G.
Campylium radicale (P. Beauv.) Grout
Ditrichum flexicaule (Schwaegr.) Hampe
Fissidens cristatus Wils.
Grimmia anodon B. S. G. (BOROS 1952)
Grimmia pulvinata (Hedw.) Sm. (BOROS 1952)
Grimmia pulvinata (Hedw.) Sm. var. *africana*
 (Hedw.) Hook. (BOROS 1952)
Gymnostomum aeruginosum Sm. (BOROS
 1938)
Homalothecium sericeum (Hedw.) B. S. G.
Hypnum cupressiforme Hedw.
Leptodictyum riparium (Hedw.) Warnst.
Leucodon sciurooides Schwaegr.
Orthotrichum anomalum Hedw. (BOROS 1952)
Plagiomnium undulatum (Hedw.) Kop.
Rhynchostegiella tenella (Dicks.) Limpr.
 (BOROS 1938)
Taxiphyllum wissgrillii (Garov.) Wijk et Marg.
 (BOROS 1938)
Tortula intermedia (Brid.) De Not.
Tortula ruralis (Hedw.) Gaertn. et al. (BOROS)
 (BOROS 1952)
Tortula subulata Hedw. (BOROS 1952)
Weissia fallax Sehm.

VASCULAR PLANTS

Acer campestre L.
Acer platanoides L.
Acer pseudo-platanus L.
Acer tataricum L.
Achillea collina L.
Achillea pannonica Scheele
Acinos arvensis (Lam.) Dandy
Adonis aestivalis L.
Adonis vernalis L. (BOROS 1938)
Adoxa moschatellina L. (FEICHTINGER 1865,
 1899)
Agrimonia eupatoria L.
Agropyron intermedium (Host) P. B.

Agropyron repens (L.) P. B.
Agrostis stolonifera L.
Ailanthus altissima (Mill.) Swingle
Ajuga chamaepitys (L.) Schreb.
Ajuga genevensis L.
Alliaria petiolata (M. B.) Cavara et Grande
Allium flavum L.
Allium oleraceum L.
Allium rotundum L.
Allium sphaerocephalon L.
Alopecurus pratensis L.
Althaea officinalis L.
Alyssum alyssoides (L.) Nath.
Amaranthus retroflexus L.
Ambrosia elatior L.
Anagallis arvensis L.
Anchusa officinalis L.
Anemone sylvestris L.
Anthemis tinctoria L.
Anthriscus cerefolium (L.) Hoffm. (BOROS
 1938)
Anthriscus sylvestris (L.) Hoffm.
Anthyllis macrocephala Wender.
Arabis hirsuta (L.) Scop.
Arabis recta Vill.
Arabis turrata L.
Arctium lappa L.
Arctium minus (Hill.) Bernh.
Arenaria serpyllifolia L.
Arrhenatherum elatius (L.) Presl
Artemisia absinthium L.
Artemisia campestris L.
Artemisia pontica L.
Artemisia vulgaris L.
Asparagus officinalis L.
Asperula cynanchica L.
Asplenium ruta-muraria L.
Asplenium trichomanes L.
Aster amellus L.
Aster linosyris (L.) Bernh.
Astragalus austriacus Jacq. (FEICHTINGER
 1865, 1899)
Astragalus cicer L.
Astragalus glycyphyllos L.
Astragalus onobrychis L.
Atriplex hastata L.
Atriplex nitens Schkuhr
Atriplex oblongifolia W. et K.

- Ballota nigra* L.
Berberis vulgaris L.
Berteroa incana (L.) DC.
Betonica officinalis L.
Bilderdykia convolvulus (L.) Dum.
Bilderdykia dumetorum (L.) Dum.
Botriochloa ischaemum (L.) Keng
Brachypodium pinnatum (L.) P. B.
Brachypodium sylvaticum (Huds.) R. et Sch.
Brassica elongata Ehrh. (FEICHTINGER 1865, 1899)
Briza media L.
Bromus benekenii (Lange) Trimen
Bromus erectus Huds. (FEICHTINGER 1865, 1899)
Bromus inermis Leyss.
Bromus mollis L.
Bromus squarrosus L.
Bromus sterilis L.
Bromus tectorum L.
Bupleurum falcatum L. (BOROS 1952)
Bupleurum rotundifolium L. (BOROS 1938)
Calamagrostis epigeios (L.) Roth
Camelina microcarpa Andrz.
Campanula bononiensis L.
Campanula glomerata L.
Campanula persicifolia L.
Campanula rapunculoides L.
Campanula rotundifolia L.
Campanula sibirica L.
Campanula trachelium L.
Cannabis sativa L.
Capsella bursa-pastoris (L.) Medik.
Cardaminopsis arenosa (L.) Hay.
Carduus acanthoides L.
Carduus nutans L.
Carex caryophylla Latour.
Carex michelii Host
Carex tomentosa L.
Carlina vulgaris L. subsp. *intermedia* (Schur) Hay.
Carpinus betulus L.
Caucalis platycarpus L.
Celtis australis L.
Centaurea micranthos S. G. Gmel.
Centaurea pannonica (Heuff.) Simk.
Centaurea spinulosa Rochel
Centaurium minus Mönch
Cephalanthera rubra (L.) Rich.
Cerasus avium (L.) Mönch
Cerasus fruticosa Pall.
Cerasus mahaleb (L.) Mill. (FEICHTINGER 1865, 1899)
Cerintho minor L.
Chaenorrhinum minus (L.) Lange
Chaerophyllum bulbosum L.
Chaerophyllum temulum L.
Chenopodium album L.
Chenopodium hybridum L.
Chondrilla juncea L.
Chrysanthemum corymbosum L.
Chrysanthemum leucanthemum L.
Chrysanthemum vulgare (L.) Bernh.
Chrysopogon gryllus (Torn. ex L.) Trin.
Cichorium intybus L.
Cirsium arvense (L.) Scop.
Cirsium pannonicum (L. f.) Link.
Cleistogenes serotina (L.) Keng (FEICHTINGER 1865, 1899, BOROS 1938)
Clematis vitalba L.
Clinopodium vulgare L.
Colutea arborescens L.
Convallaria majalis L.
Coronilla coronata Nath.
Coronilla varia L.
Corydalis cava (L.) Schw. et Körte
Corydalis solida (L.) Clairv.
Cotinus coggygria Scop.
Cotoneaster niger (Thunbg.) Fr.
Cotoneaster tomentosus (Ait.) Lindley (BOROS 1938)
Crataegus monogyna Jacq.
Crataegus laevigata (Poir.) DC.
Cruciata ciliata (Presl) Opiz
Crupina vulgaris Pers. (FEICHTINGER 1865, 1899, BOROS 1938)
Cuscuta epithimum (L.) Nath.
Cuscuta campestris Yuncker
Cynoglossum officinale L.
Cytisus austriacus L.
Cytisus nigricans L.
Cytisus supinus L. (BOROS 1938)
Dactylis glomerata L.
Dactylis polygama Horvátovszky
Datura stramonium L.
Daucus carota L.
Dentaria bulbifera L.
Descurainia sophia (L.) Webl
Dianthus pontederiae Kern.

- Dictamnus albus* L. (FEICHTINGER 1865, 1899, BOROS 1938)
Diploaxis tenuifolia (Jusl.) DC.
Doronicum hungaricum (Sadl.) Rchb.
Dorycnium germanicum (Gremli) Rikli
Echium italicum L.
Echium vulgare L.
Elaeagnus angustifolia L.
Epipactis helleborine (L.) Crantz
Erigeron acris L.
Erigeron canadensis L.
Erodium cicutarium (L.) L'Hérit.
Erophila verna (L.) Chev.
Eryngium campestre L.
Erysimum diffusum Ehrh.
Erysimum odoratum Ehrh.
Euonymus europaeus L.
Euonymus verrucosus Scop.
Eupatorium cannabinum L.
Euphorbia cyparissias L.
Euphorbia esula L.
Euphorbia exigua L.
Euphorbia falcata L.
Euphorbia helioscopia L.
Euphorbia pannonica Host
Euphorbia pepus L.
Euphorbia platyphyllos L.
Euphorbia salicifolia Host (FEICHTINGER 1865, 1899)
Falcaria vulgaris Bern.
Festuca heterophylla Lam.
Festuca pseudovina Hack. ex Wiesb.
Festuca rupicola Heuff.
Festuca valesiaca Schleich.
Ficaria verna Huds. subsp. *bulbifera* (Albert) A. et D. Löve
Filipendula vulgaris Mönch (BOROS 1938)
Fragaria viridis Duch.
Fraxinus excelsior L.
Fraxinus ornus L.
Fumana procumbens (Dun.) Gren. et Godr. (FEICHTINGER 1865, 1899)
Fumaria schleicheri Soy.-Will.
Gagea lutea (L.) Ker Gawl.
Gagea pusilla (F. W. Schmidt) R. et Sch.
Galeopsis pubescens Bess.
Galium aparine L.
Galium glaucum L.
Galium mollugo L.
Galium odoratum (L.) Scop.
Galium verum L.
Genista tinctoria L. subsp. *elatior* (Koch) Simk.
Geranium lucidum L. (FEICHTINGER 1865, 1899)
Geranium robertianum L.
Geranium sanguineum L. (BOROS 1938)
Geum urbanum L.
Glechoma hederacea L.
Glechoma hirsuta W. et K.
Globularia aphyllanthes Crantz (BOROS 1952)
Hedera helix L.
Helianthemum ovatum (Viv.) Dun.
Helictotrichon pratense (L.) Bess.
Helictotrichon pubescens (Huds.) Pilger
Heliotropium europaeum L.
Helleborus dumetorum W. et K. (FEICHTINGER 1865, 1899, BOROS 1938, 1952)
Hesperis sylvestris Crantz (FEICHTINGER 1865, 1899, BOROS 1938)
Hieracium bauhini Schult. ex Bess. (FEICHTINGER 1865, 1899)
Hieracium lachenalii C. C. Gmel.
Hieracium pilosella L.
Hieracium sylvaticum (L.) Grufbg. (BOROS 1938)
Holosteum umbellatum L.
Hordeum murinum L.
Hornungia petraea (L.) Rchb. (FEICHTINGER 1865, 1899, BOROS 1952)
Humulus lupulus L.
Hypericum hirsutum L.
Hypericum perforatum L.
Inula britannica L.
Inula conyza DC.
Inula ensifolia L.
Inula oculus-christi L.
Juglans regia L.
Juniperus communis L.
Jurinea mollis (L.) Rchb.
Kickxia elatine (L.) Dum.
Knautia arvensis (L.) Coult.
Koeleria cristata (L.) Pers.
Laburnum anagyroides Medik.
Lactuca quercina L.
Lactuca serriola Torn.
Lactuca viminea (L.) J. et C. Presl
Lamium amplexicaule L.
Lappula heteracantha (Ledeb.) Borb. (BOROS 1938)

- Lapsana communis* L.
Lathyrus latifolius L.
Lathyrus tuberosus L.
Lavatera thuringiaca L.
Leontodon hispidus L. (BOROS 1938)
Lepidium campestre (L.) R. Br.
Lepidium draba L.
Ligustrum vulgare L.
Linodorum abortivum (L.) Sw. (FEICHTINGER 1865, 1899)
Linaria genistifolia (L.) Mill.
Linaria vulgaris Mill.
Linum austriacum L.
Linum catharticum L.
Linum flavum L. (BOROS 1938)
Linum hirsutum L.
Linum tenuifolium L. (BOROS 1938)
Lithospermum arvense L.
Lithospermum purpureo-coeruleum L. (BOROS 1938)
Lolium perenne L.
Lonicera xylosteum L.
Loranthus europaeus Jacq.
Lotus borbasii Ujhelyi
Lotus corniculatus L.
Luzula campestris (L.) Lam. et DC.
Lysimachia nummularia L.
Malus sylvestris (L.) Mill.
Malva sylvestris L.
Marrubium peregrinum L.
Matricaria chamomilla L.
Matricaria discoidea DC.
Matricaria maritima L. subsp. *inodora* (L.)
 Soó
Medicago falcata L.
Medicago lupulina L.
Medicago minima (L.) Grufbg.
Medicago sativa L.
Medicago varia Martyn
Melampyrum arvense L.
Melampyrum barbatum W. et K.
Melampyrum cristatum L. (BOROS 1938)
Melampyrum nemorosum L.
Melandrium album (Mill.) Garcke
Melica ciliata L.
Melica transsilvanica Schur
Melica uniflora Retz.
Melilotus albus Desr.
Melilotus officinalis (L.) Pall.
Melittis carpatica Klok.
Mercurialis annua L.
Micropus erectus L. (FEICHTINGER 1865, 1899, BOROS 1938)
Minuartia fastigiata (Sm.) Rchb. (FEICHTINGER 1865, 1899)
Muscari comosum (L.) Mill.
Muscari neglectum Guss. ex Ten.
Muscari tenuiflorum Tausch
Mycelis muralis (L.) Dum.
Myosotis arvensis (L.) Hill
Myosotis stricta Link
Neottia nidus-avis (L.) Rich.
Nepeta cataria L. (FEICHTINGER 1865, 1899)
Nigella arvensis L.
Nonea pulla (L.) DC.
Odontites lutea (L.) Clairv.
Odontites rubra (Baumg.) Opiz
Onobrychis vicifolia Scop.
Ononis pusilla L.
Ononis spinosa L.
Onopordum acanthium L.
Orchis purpurea Huds.
Origanum vulgare L.
Orlaya grandiflora (L.) Hoffm.
Ornithogalum pyramidale L.
Ornithogalum umbellatum L.
Orobanche alba Steph.
Orobanche caryophyllacea Sm.
Oryzopsis virescens (Trin.) Beck (FEICHTINGER 1865, 1899, BOROS 1938)
Papaver dubium L.
Papaver rhoeas L.
Pastinaca sativa L. subsp. *pratensis* (Pers.)
 Celak
Petrorhagia prolifera (L.) Ball et Heyw.
Peucedanum alsaticum L.
Peucedanum cervaria (L.) Lap.
Phleum phleoides (L.) Karst.
Phlomis tuberosa L.
Phragmites australis (Cav.) Trin.
Physalis alkekengi L.
Picris hieracioides L.
Pimpinella saxifraga L.
Pinus nigra Arnold
Pinus sylvestris L.
Plantago lanceolata L.
Plantago media L.
Poa angustifolia L.
Poa annua L.
Poa bulbosa L.

- Poa compressa* L.
Poa nemoralis L.
Polygala comosa Schkuhr
Polygala major Jacq. (BOROS 1938)
Polygonatum latifolium (Jacq.) Desf.
Polygonatum odoratum (Mill.) Druce
Polygonum aviculare L.
Populus tremula L.
Potentilla anserina L.
Potentilla arenaria Borkh.
Potentilla neglecta Baumg.
Potentilla recta L. (BOROS 1938)
Primula veris Huds.
Prunella laciniata (L.) Nath. (BOROS 1938)
Prunella vulgaris L.
Prunus spinosa L.
Pulmonaria mollissima Kern.
Pulsatilla grandis Wender.
Pyrus pyraeaster (L.) Burgsd.
Quercus cerris L.
Quercus dalechampii Ten.
Quercus pubescens Willd.
Quercus virgiliana Ten.
Ranunculus illyricus L. (FEICHTINGER 1865,
 1899, BOROS 1938)
Ranunculus polyanthemos L. (FEICHTINGER
 1865, 1899)
Rapistrum perenne (L.) All.
Reseda lutea L.
Reseda phyteuma L. (FEICHTINGER 1865,
 1899, BOROS 1938)
Rhamnus catharticus L.
Ribes uva-crispa L.
Robinia pseudo-acacia L.
Rosa canina L.
Rosa jundzillii Bess.
Rosa rubiginosa L. (BOROS 1938)
Rubus caesius L.
Salsola kali L.
Salvia austriaca Jacq.
Salvia nemorosa L.
Salvia pratensis L.
Salvia verticillata L.
Sanguisorba minor Scop.
Saxifraga bulbifera L.
Saxifraga tridactylites L.
Scabiosa ochroleuca L.
Scorzonera austriaca Willd. (FEICHTINGER
 1865, 1899)
Scorzonera hispanica L. (BOROS 1938)
Sedum album L.
Sedum maximum (L.) Hoffm.
Sedum sexangulare L.
Senecio jacobaea L.
Serratula radiata (W. et K.) M. B. (BOROS
 1938)
Seseli annuum L.
Seseli hippomarathrum Jacq. (FEICHTINGER
 1865, 1899)
Seseli osseum Crantz emend. Simk.
Sideritis montana L. (BOROS 1938)
Silene nutans L.
Silene otites (L.) Wibel
Silene vulgaris (Mönch) Garcke
Sinapis arvensis L.
Sisymbrium orientale Torn.
Solanum nigrum L.
Solidago virga-aurea L.
Sorbus domestica L.
Sorbus graeca (Spach) Kotschy (BOROS 1952)
Sorbus torminalis (L.) Crantz
Stachys annua (L.) L.
Stachys germanica L.
Stachys recta L.
Stachys sylvatica L.
Stellaria graminea L.
Stellaria media (L.) Cyr.
Stellaria holostea L.
Sternbergia colchiciflora W. et K.
Stipa capillata L.
Stipa pulcherrima C. Koch
Syringa vulgaris L.
Taraxacum laevigatum (Willd.) DC.
Taraxacum officinale Weber ex Wiggers
Taraxacum serotinum (W. et K.) Poirlet
Teucrium chamaedrys L.
Teucrium montanum L. (BOROS 1952)
Thalictrum minus L.
Thesium linophyllum L.
Thlaspi perfoliatum L.
Thymelaea passerina (L.) Coss. et Germ.
Thymus glabrescens Willd.
Thymus marschallianus Willd.
Tilia cordata Mill.
Torilis arvensis (Huds.) Link
Torilis japonica (Houtt.) DC.
Tragopogon dubius Scop. (FEICHTINGER
 1865, 1899)
Trifolium alpestre L. (BOROS 1938)
Trifolium arvense L.

- Trifolium campestre* Schreb.
Trifolium montanum L.
Trifolium ochroleucum Huds.
Trifolium pratense L.
Trifolium repens L.
Trinia glauca (L.) Dum.
Turritis glabra L.
Tussilago farfara L.
Ulmus glabra Huds.
Ulmus minor Mill.
Urtica dioica L.
Valeriana officinalis L. subsp. *collina* (Wallr.) Nym.
Valerianella rimosa Bast. (FEICHTINGER 1865, 1899)
Verbascum austriacum Schott
Verbascum nigrum L.
Verbascum phlomoides L.
Verbascum phoeniceum L.
Verbena officinalis L.
Veronica austriaca L.
Veronica chamaedrys L.
Veronica hederifolia L.
Veronica praecox All.
Veronica prostrata L.
Veronica spicata L.
Viburnum lantana L.
Vicia angustifolia Grufbg.
Vicia pannonica Crantz
Vicia tenuifolia Roth
Vincetoxicum hirundinaria Medik.
Viola ambigua W. et K. (BOROS 1952)
Viola arvensis Murr.
Viola kitaibeliana R. et Sch.
Viola mirabilis L.
Viola odorata L.
Viola sylvestris Lam.
Viscum album L.
Xeranthemum annuum L.

REFERENCES

- BOROS, Á. (1938): *Florisztikai jegyzetek*. [Boros's travel diary.] **24**: 102–105.
 BOROS, Á. (1940): A magyarföldi husáng (*Ferula sadleriana*) hazánk benszülött növénye és újabb termőhelye. – *Term. Tud. Közl., Pótfüz.* **72**: 229–232.
 BOROS, Á. (1944): A *Cotinus coggygria* hazai elterjedéséhez. – *Bot. Közlem.* **41**: 152.
 BOROS, Á. (1952): *Florisztikai jegyzetek*. [Boros's travel diary.] **38**: 31–32.
 BOROS, Á. (1953): A Gerecse hegység növényföldrajza. [The geobotany of the Gerecse Mts.] – *Földr. Ért.* **2**(4): 470–484.
 BULLA, B. (1962): *Magyarország természeti földrajza*. – Tankönyvkiadó, Budapest, 424 pp.
 FACSAR, G. (1993): Magyarország vadontermő rózsái. (Native and naturalized *Rosa* species of Hungary.) – *Publ. Univ. Horticult. et Ind. Aliment.* **53**(Suppl.): 75–128.
 FEICHTINGER, S. (1865): Közlemények Esztergom megye helyrajzából. [Mitteilungen aus der Flora des Komitates Esztergom.] – *MOT Vándorgy. Munk.* **10**: 273–285.
 FEICHTINGER, S. (1899): *Esztergom megye és környékének flórája*. [The flora of the Esztergom county and its surroundings.] – Esztergom, 456 pp.
 FEKETE, G. and JÁRAI-KOMLÓDI, M. (1962): Die Schuttabhangwälder der Gerecse- und Bakonygebirge. – *Ann. Univ. Sci. Budapestensis, Sect. Biol.* **5**: 115–130.
 FRANK, K. (1870): *Tata vidéke Flórájának rövid ismertetése*. – A kegyestanítórend kis-gimnáziumának Értesítménye az 1869/70 tanévre. Esztergom, pp. 3–6.
 GÁYER, GY. (1916): Komárom megye virágos növényeiről. – *Magyar Bot. Lapok* **15**: 37–54.
 HILLEBRANDT, F. (1858): Beitrag zur Flora Ungarn. – *Österr. Bot. Zeit.* **8**: 297–300.
 KERNER, A. (1857): Das Pilis-Vértes-Gebirge, eine pflanzengeographische Skizze. – *Verh. zool.-bot. Ges., Wien*, **7**: 257–278.
 KOMLÓDI, M. (1958): *Adatok a Gerecse-hegység növényföldrajzához*. – Budapest, (manuscript).
 LÁNG, S. (1955): A Gerecse peremhegységi részeinek geomorfológiája. – *Földr. Ért.* **4**: 157–191.
 MATUS, G. (1993): Néhány új florisztikai adat a Gerecséből. – *Bot. Közlem.* **80**: 41–45.

- ORBÁN, S. and VAJDA, L. (1983): *Magyarország mohafldrájának kézikönyve*. – Akadémiai Kiadó, Budapest, 518 pp.
- PAPP, J. (1937): A Gerecse flórája. – *Turisták Lapja* **49**: 191–194.
- PENKSZA, K. (1991): New floristic records from the Gerecse Mountains. – *Abstracta Botanica* **15**: 61–62.
- PENKSZA, K. (1993): *A kesztölci Fehér-szirt és környékének flórája és vegetációja*. – Doktori értekezés. Budapest (manuscript)
- PRISZTER, SZ. (1980): *A magyar flóra és vegetáció rendszertani-növényföldrajzi kézikönyve VII. (Synopsis systematico-geobotanica florae vegetationisque Hungariae VII.)* – Akadémiai Kiadó, Budapest, 683 pp.
- RÉDL, R. (1926): *Adatok a Gerecse hegység növényzetének ismeretéhez*. – Doktori értekezés (manuscript)
- SEREGÉLYES, T. (1974): Über die Felsenrasenvegetation des Gerecsegebirges. – *Ann. Univ. Sci. Budapestensis, Sect. Biol.* **16**: 123–144.
- SEREGÉLYES, T. (1977): Adatok a Gerecse hegység flórájához. – *Abstracta Botanica* **5**: 45–55.
- SEREGÉLYES, T. (1986): The establishment of ferns in planted pine forest in the vicinity of Tata, Hungary. – *Abstracta Botanica* **10**: 117–130
- SIMON, T. (1992): *A magyarországi edényes flóra határozója*. – Tankönyvkiadó, Budapest, 892 pp.
- SZÁRAZ, P. (1981): *Vegetációtanulmányok a Gerecse hegységben*. – Doktori értekezés. Budapest (manuscript)
- SZOLLÁT, GY. (1980): Data of the Flora and Vegetation of the Gerecse Mountains I. – *Studia bot. hung.* **14**: 83–105.
- SZOLLÁT, GY. (1987): *A Gerecse-hegység cseres- és molyhos-cseres tölgyeseinek cönológiai vizsgálata*. – Doktori értekezés. Budapest (manuscript)
- TÖRÖK, K. (1977): *A Gerecse-hegység karsztbokorerdeinek növénycönológiai vizsgálata*. – Szakdolgozat. Budapest. (manuscript)
- TÖRÖK, K. and PODANI, J. (1982): A numerical analysis of karstic bush forests of Gerecse Hills, Hungary. – *Documents Phytosociologiques*, N. S. **6**: 339–354.
- ZÓLYOMI, B. (1957): Der Tatarenahorn-Eichen-Lösswald der zonalen Waldsteppe. – *Acta Bot. Sci. Hung.* **3**: 401–425.
- ZÓLYOMI, B. and FEKETE, G. (1994): The Pannonian loess steppe: differentiation in space and time. – *Abstracta Botanica* **18**: 29–41.

(Received on 25 March, 1995)