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FLORA OF THE DNIPRO CITY

Monograph



2020

UDC 581.9(477.63)

K21

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Published by decision of the Scientific Council
of the Oles Honchar Dnipro National University
(protocol № 6 from 21.12.2017)

Karmyzova L., Baranovsky B. Flora of the Dnipro city. Monograph.
Rīga, Izdevniecība “Baltija Publishing”, 2020. 120 c.

ISBN 978-9934-588-94-5

DOI <https://dx.doi.org/10.30525/978-9934-588-94-5>

The monograph is devoted to the survey of urban vascular flora in Dnipro city, its key biotopes. The Dnipro city territory is represented by watershed-gully and valley-gully landscapes typical for the Steppe zone of Ukraine as well as valley-terrace landscape of the Dnieper river, which, like other rivers in Europe, is characterized by a high level of biodiversity. The modern flora has a southern character that reflects the zonal features of flora of the city as a subarid territory.

Under modern conditions, the vegetation of most watershed-gully landscapes has been radically transformed and remained unchanged partially on gully territories. In this case, studies of both native (reference) and transformed ecosystems, including for the protection and restoration of gully systems, are of great importance. A detailed study of flora and vegetation, the processes of their transformation and renewal, is an important modern task.

ISBN 978-9934-588-94-5

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INTRODUCTION

Subsequent to rapid growth of cities, one of the current separate problems is the global disturbance of native flora and vegetation on these territories and formation of artificial environment for the existence of the urban citizenry. Anthropogenic impact forms here irreversible changes in vegetation cover. Recently, more and more attention has been paid to the problem of preserving plant phytodiversity, even under conditions of urban environment.

Conservation of biological diversity is one of the most important ecological challenges. In 1992, the UN Conference adopted the "Convention on Biological Diversity", which was ratified by the Law of Ukraine. At the initiative of the Ministry of Natural Resources in 2000, according to the Law of Ukraine "On flora", the State Cadastre of Flora of Ukraine was developed, which provides for the inventory of flora and vegetation (Shelyag-Sosonko et al., 2003).

According to known classifications, floras of cities refer to the regional flora as a complex of plant species within small to large certain area: administrative district, city, region, country (Mirkin, Naumova, 2012). Thus, urban flora of Dnipro city belongs to a type of regional flora.

The territory of Dnipro city is represented by an excessively transformable watershed-gully landscape on the one hand, and valley-terrace landscape of the Dnieper River valley on the other hand, which is characterized by a high biodiversity, like other river valleys of Europe (Schindler et al., 2016).

Analysis of regional flora allows conducting a phytomonitoring, which provides to analyze its state and structure for further environmental monitoring and conservation.

An important part of urban flora survey is the study of its rare component. In many regions of Ukraine, following activities on phytodiversity preservation are carried out: Red Lists of species, Red Books (Red Book of Donetsk Oblast, 2010, Red Book of Dnipropetrovsk Oblast, 2010, Official lists of regionally rare plants..., 2012), etc. are published.

Adventization process also entrusted with the task of flora studying. An important aspect of the study of regional flora is the compilation of Black Books, or "black-sheets", which is also one of the important stages of biodiversity conservation and reducing the negative effects of biological invasions.

Many examples of studying the bioecological, structural and dynamic features of the world and domestic urban florology determine the importance and relevance of our studies.

PHYSICO-GEOGRAPHICAL CONDITIONS OF DNIPRO CITY

Geomorphology

Dnipro city is located in the Northern subzone of steppe zone of Ukraine. Right-bank territory of the city is located within the steppe region of the Dnieper upland and includes mainly the watershed-gully landscape, where zonal steppe biocenoses had prevailed in the past; and valley-terrace landscape similar to the previous one, but adjacent to the river valleys and well-drained (Bondarchuk, 1949, Physical and geographical zoning of the Ukrainian SSR, 1968). Left-bank part of the city is located in the steppe region of the Dnieper lowland and is represented by a valley-terrace landscape including valleys of Dnieper River and Samara River, its tributary. The total area of the city is about 405 km².

Climate

The climate is moderately continental due to location of Dnipro city within the steppe zone. The city territory belongs to unstable moisture zone. Common features of climate change in recent decades are an increase in average seasonal temperatures and an increase in aridity. Territory of Dnipro city is located in a low-rainfall (subaridic) zone, where long-term average annual rainfall is 496 mm.

Hydrology

A significant part of Dnipro city is occupied by water bodies. It is mainly Dnieper River (Zaporizhia (Dniprovskiy) Reservoir), as well as its left-bank inflow, such as Samara river (Samara cove of the Zaporozhye Reservoir), Orel river (Orel canal), Shpakova river, Mayachka river and a number of lakes within second and third terraces of Dnieper river. They have an impact on natural conditions of the city.

Hydrological regime of Dnieper River is significantly influenced by cascade of reservoirs on Dnieper River (Dnieper Cascade). Water level was raised from 4 m on the lower border of the city (Kodak-Lyubimovka cross section) to 3 m on the upper border (Taromskoye village) when creating the Dnieper (the Zaporozhye Reservoir) reservoir.

Soil cover

On the territory of Dnipro city soil cover is very diverse because landscape heterogeneity (Mirzak, 2001). A significant part of the city territory is occupied by texizems and texishtuchnozems. The main territory of the city is occupied by urbanozems of different capacity and with different number of anthropogenic inclusions. On the one hand, diversity of soils in the city associated with landscape diversity is the basis for sufficient being of species diversity, and on the other – long-term transformation of soil cover and presence of urban soils in most areas do not allow the existence of a number of plant species that previously grew on native soils.

General characteristics of vegetation

Territory of Dnipro city is located within the steppe zone, forb-fescue-feather grass steppe subzone, the Eurasian steppe region, the Pontic province, Black Sea-Azov steppe subprovince, and reflects the corresponding vegetation (Physical and geographical zoning..., 1968). Therefore, different vegetation types of the territory are depending on the subarid climate and have zonal features.

Steppe vegetation was preserved only on the territory of watershed-gully and valley-gully landscapes on the slopes of Dnieper River and gullies, where it was modified by pasture and represented by fescue, spurge and sagebrush pastures (Belgard, 1950, 1971). In addition to transformed steppe vegetation, vegetation of gully landscapes is represented by artificial forest strips along the valley bottoms and north-facing slopes, mainly oak, ash and white acacia plantations (Karmyzova, 2015).

Vegetation of valley-terraced landscapes is varied significantly. Fragmentary forest vegetation within floodplains of Dnieper and Samara rivers is presented by black poplar and willow stands, fragments of oak woods (Baranovsky, Voloshina, 2010). Islands of Dnieper River and territory of another terrace are cover with vegetation of psammophytic steppe (Baranovsky et al., 2011).

In accordance with the geobotanical zoning of Ukraine (Geobotanical regionalism of URSR, 1977, Dmitrieva et al., 1982) the territory of Dnipro city is located within the steppe zone, forb-fescue-feather grass steppe subzone.

Right-bank territory of the city refers to the Sursko-Dniprovska Erosion Geobotanical District of the steppe region in the band of fescue-feather grass steppes of the Pryazovia-Black Sea Steppe Subprovince of the Pontic steppe province of the European-Asian steppe region.

Left-bank territory of the city refers to Novomoskovsk (Dniprovsко-Samarskiy) geobotanical district of Pavlograd (Dniprovsко-Donetsk district) forb-fescue-feather grass steppes, ravine oak forests, inundated meadows and alkali-halophilic vegetation on the loess terraces of the Priazovsko-Black Sea steppe subprovince of Pontic steppe province of the Eurasian steppe region.

The zonal vegetation type of Dnipro city territory is forb-fescue-feather grass steppe. Forest vegetation is represented by artificial forest strips along the banks of Dnieper River and ravine slopes; it is mainly represented by oak, white acacia and poplar plantations with the inclusion of other species.

Steppe vegetation remains only on the territory of watershed-gully and valley-gully landscapes on the slopes of Dnieper River and gullies, where it was modified by pasture and represented by fescue, spurge and sagebrush pastures (Belgard, 1950).

Steppe vegetation within the water protection zone of the Zaporozhye Reservoir was formed on partially denuded soil on slopes with watering occurs only due to precipitation. All this, plus intensive grazing (in 60 – 80 years) led to grass thinning where projective cover degree does not exceed 45 – 50 %. The herbage was dominated by cereals (25 – 30 %) and mixed herbs (2 – 30 %) (Baranovsky, 2000). At present, steppe vegetation in areas that are not used for construction is partially restored (Karmyzova, 2014).

Vegetation of ravine landscapes was represented by artificial forest strips along the valley bottoms and north-facing slopes, mainly oak, ash and black locust plantations, except areas of anthropogenically transformed steppe vegetation (Karmyzova, 2015).

Vegetation of valley-terraced landscapes was varied significantly. Fragmentary forest vegetation within floodplains of Dnieper and Samara rivers was presented by black poplar and willow stands (Baranovsky, Voloshina, 2010).

Islands of Dnieper River and territory of second terrace were cover with psammophytic vegetation (Baranovsky et al., 2011). Areas of psammophytic steppe here alternate with artificial plantings of Common pine (*Pinus sylvestris* L.) and black locust (*Robinia pseudoacacia* L.).

Floodplain meadows of the valley were formed on meadow-chernozemic and sod sandy soils under conditions of periodic flooding and were represented by grass-forb vegetation (Shennikov, 1941).

In water area of the Zaporozhye Reservoir located within the city floodplain was narrow and it was flooded to a considerable depth (3 to 4 meters).

As a result of the construction of embankments and the arrange of beaches, open shallow waters sometimes have a narrow area of aquatic vegetation (Baranovsky, 2000). Aquatic vegetation was distributed according to the zonal type on open shallow water along the river bank.

Area of vegetation (toward the bank) consists of fragmented zones of the air-aquatic plant: groups of *Phragmites australis* (Cav.) Trin.ex Steud. and *Typha angustifolia* L. with microassociations of *Typha latifolia* L., *Typha laxmanii* Lepech., *Scirpus lacustris* L., *Glyceria maxima* (C. Hartm.) Holub.

The zone of floating-leaf plants was represented by groupings of *Nuphar lutea* (L.) Smith and *Trapa borysthenica* V. Vassil.

The zone of submerged plants is represented by a strip of phytocenoses with *Potamogeton perfoliatus* L., *Potamogeton crispus* L., *Potamogeton pectinatus* L., *Ceratophyllum demersum* L. with a fragmentary layer of *Lemna minor* L., *Spirodela polyrriza* (L.) Schleid. and thread algae with cyanobacteria (blue-green algae) in mid-to late summer.

In recent decade vegetation composition of shallow water along river banks has become more diverse due to stabilization of littoral and gradual change of river hydrological regime to lake regime of reservoir. Limnophilic plant species began to occur, and sometimes dominate here, such as: *Potamogeton compressus* L., *Potamogeton gramineus* L., *Hydrocharis morsus-ranae* L., *Nuphar lutea* (L.) Smith, *Trapa natans* L.

Adventitious species are widely distributed, such as *Vallisneria spiralis* L., *Zizania latifolia* (Griseb.) Stapf.

Above the water's edge groupings of tree and shrub vegetation were developed: *Salix alba* L., *Salix fragilis* L., *Acer negundo* L., *Populus nigra* L., *Ulmus minor* Mill., *Ulmus carpinifolia* Rupp.ex Suchov., *Ulmus glabra* Huds., *Amorpha fruticosa* L.

STUDY MATERIALS AND METHODS

The materials were sampled during route studies from 2010 to 2017 in various biotopes of Dnipro city. To compile a complete list of the flora of the city, literary and archival materials and herbarium collections were critically analyzed.

Studies were conducted on conventional botanical methods of collection, herbarization, species identification (Skvortsov, 1977, Determinant ..., 1965). Specific hydrobotanical methods were used in the survey of reservoir flora (Koreliakova, 1977, Katanskaya, I981). On the basis of the processed results the list of flora of Dnipro city was compiled. Names of plant species are given by the "Vascular plants of Ukraine: A nomenclatural checklist" (Mosyakin, Fedorovichuk, 1999).

The analysis of flora systematic structure was carried out according to common method (Tolmachev, 1931). Bioecomorphic analysis was carried out on the basis of own surveys (registration of species on certain biotopes) and literary sources (Belgard, 1950, Afanasiev, 1968, Chorology of flora of Ukraine, 1986, Kleopov, 1990, Ecoflora of Ukraine, 2000–2010, Dubina et al., 1993, Tarasov, 2012, Egorova, 1999, Baranovsky et al., 2017), Determinant..., 1965, Determinant ..., 1987, Flora of the USSR, 1934-1965, Flora of the European part of the USSR, 1974–1989, Flora of Eastern Europe, 1990-2004, Kucherevsky, 2004). Analysis of climamorphs was carried out by Raunkier (1934), and analysis of ecomorphs by Belgard (1950). When determining ecomorphs, both pure (e.g., He, Sc, Ms, X) and mixed ecomorphs (e.g., MsX) were taken into account. In this case, the second component was the main one. We also applied a new cenomorph sylvomargoant (SMn) as plant species typical for biotopes of edges and forest clearings (Baranovsky, 2017).

The classification of biotopes in Dnipro city was based on the European system EUNIS (<http://eunis.eea.europa.eu/related-reports.jsp>), which is adapted for Kyiv city (Didukh, Aleshkina, 2012).

Classification of biotopes is of scientific and practical importance. This is, first of all, the ordering of information about ecosystem structure, its organization, intra-system relations, modeling and further forecasting. The practical value of ecosystem (biotopes) classifications is protection of its constituent components (Didukh, 2012).

The biotope database (EUNIS) has a hierarchical structure that allows to generalize information at different levels (Didukh, 2012).

STRUCTURAL ANALYSIS OF URBAN FLORA

Systematic structure of the flora

The systematic structure of flora reveals its biodiversity (Tolmachev, 1974), which is created due to the number of species, genera, families, as well as large systematic taxonomic units.

Modern urban flora of Dnipro city consists of 932 vascular plant species belonging to 445 genera, 105 families, 5 classes and 4 divisions. According to the level of floristic richness, it is not more than 50% of Dnipropetrovsk Oblast total flora (Tarasov, 2012).

The core of Dnipro city flora is formed by Magnoliophyta division covering 922 species (98,7%), of which 169 (18,1%) belong to class Liliopsida, and 753 (80,6%) belong to class Magnoliopsida (Table 1).

The spectrum of 10 families of flora in Dnipro city basically coincides with a similar spectrum of leading families of the region which have such a sequence: *Asteraceae*; *Poaceae*; *Brassicaceae*; *Fabaceae*; *Lamiaceae*; *Rosaceae*; *Caryophyllaceae*; *Scrophullariaceae*; *Ranunculaceae*; *Apiaceae*; *Boraginaceae*. As in most urban floras of Holarctic region, the first place in the spectrum was occupied by *Asteraceae*, 127 plant species, or 13.6% of total number of the species. Family *Poaceae* includes 74 species (7,9%) which indicates the steppe character of the urban flora of Dnipro city and corresponds to zonal characteristics of the territory studied.

Family *Brassicaceae* ranks third with 60 species (6,4%). Significant participation of this family is associated with active flora synanthropization processes. Family *Fabaceae* ranks fourth and is represented by 55 species (5,8%). The presence in the spectrum of families *Lamiaceae* (47 species, or 5,0%), *Rosaceae* (41, 4,3%), *Caryophyllaceae* (34, 3,6%), *Scrophullariaceae* (34, 3,6%), *Ranunculaceae* (25, 2,6%), *Apiaceae* (23, 2,5%), *Boraginaceae* (22, 2,4%) indicates a significant participation of Mediterranean species in the urban flora of Dnipro city and, in particular, indicates the southern character of the flora.

Table 1. – Bioecological characteristics of flora species of Dnipro city and their distribution by the main biotopes.

Biomorphs: Ann (Annuus) – annual; Bien (Biennis) – biennial; Per (Perennis) – perennial; SFr (Suffrutex) – semi-shrub; Fr (Frutex) – shrub; Arb (Arbor) – tree. **Ecomorphs. Climamorphs:** Ph – phanerophytes; HKr – hemicryptophytes; Kr – cryptophytes; G – geophytes; T – therophytes. **Heliomorphs:** He (Heliophiton) – heliophytes (obligate sun-loving plants) Sc (Scioiphiton) – sciophytes (obligate shade-loving plant species). **Trophomorphs:** OgTr (Oligotroph) – oligotrophs (species growing on nutrient-poor soils) MsTr (Mesotroph) – mesotrophs (species growing on soils medium in fertility) MgTr (Megatroph) – megatrophs (species tending to prefer soil high in fertility). **Hygromorphs:** Hy (Hydatophiton) – hydатophytes (underwater plant, mostly totally immersed in water) Pl (Pleistophiton) – pleistophytes (species floating on the water's surface) Hel (Helophiton) – helophytes (species of shallow-water habitats) Hg (Hygrophiton) – hygrophytes (species of wet soils) Ms (Mesophiton) – mesophytes (inhabitants of fresh soils) X (Xerophiton) – xerophytes (species of dry habitats). **Cenomorphs:** Aq (Aquant) – aquant (aquatic species) Pal (Paludosus) – paludant (swampy species) Pr (Pratensis) – pratant (meadow species) Sil (Silvaticus) – sylvant (forest species) St (Stepposus) – stepant (steppe species) SMn (Margosilvaticus) – sylvomargoant (forest margin species) Ps (Psammophiton) – psammophyte (species of sandy soils) Pt (Petrophyton) – petrophyte (species of stony biotopes) Ru (Ruderatus) – ruderant (ruderal species) Hal (Halophyon) – halophyte (species of saline soils) Cu (Cultus) – culturant (cultural species). **Zonality:** A – Arctic, B – Boreal, T – Temperate, SM – Submeridional, M – Meridional (Mediterranean), sTr – Subtropical, Tr – Tropical, PL – Plurizonal (holactric). **Regionalities:** CIRCPOL – circumpolar, EUR – European, EEUR – Eastern European, SEUR – Southern European, AS – Asian, WAS – Western Asian, SIB – Siberian, ESIB – East Siberian, WSIB – West Siberian, PONT – Black sea endemic species, CAUCASUS-Caucasian endemic species, AM – American, NAM – North American, SAM – American, AF – African NAF – North African. **Biotopes:** C – aquatic biotopes, D – swampy biotopes, E – grass biotopes, G – forest biotopes, I – semi-natural biotopes, J – artificial biotopes. **Adventive status** – Adv.

Nr	Species within genus	Biogeographic regions										Adventive status		
		Climamorphs			Biomorphs			Tropohomorphs			Heteromorphs			
Zonality		Regionalities		Biotopes										
8.	<i>Salvinia natans</i> (L.) All.	T	Ann	SchHe	MsTr	Per	Aq	sMsTr		EURAS	C1.2			
	Thelypteridaceae													
9.	<i>Thelypteris palustris</i> Schott	G	Per	HeSc	MsTr	Hg	SilPal	Pl	EURAS+AM	C3.21 I				
	Divisio Pinophyta													
	Pinaceae													
10.	<i>Pinus pallasiana</i> D. Don	Ph	Arb	SchHe	OgMsTr	XMs	Sil	TsM	EURAS	G3 F12				
11.	<i>Pinus sylvestris</i> L.	Ph	Arb	SchHe	OgMsTr	XMs	Sil	TsM	EURAS	G3 F12				
	Divisio Magnoliophyta													
	CLASS Liliopsida													
	Alismataceae													
12.	<i>Alisma lanceolatum</i> With.	HKr	Per	He	MgTr	HellHg	PalAq	TsMM	EURAS	C3.513				
13.	<i>Alisma plantago-aquatica</i> L.	HKr	Per	SchHe	MsTr	HgHel	PalAq	PL	CIRCPOL	C3.513				
14.	<i>Sagittaria sagittifolia</i> L.	HKr	Per	SchHe	MsTr	HgHy	PalAq	TsM	EUR-WAS	C3.241				
	Alliaceae													
15.	<i>Allium angulosum</i> L.	G	Per	SchHe	MsTr	HgMs	Pr	TsM	EUR-WSIB	E2.14				

№ ^a	Species within genus	Zonality						Regionalities	Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs			
16.	Allium flavescens Bess.	G	Per	He	MsTr	MsX	PtSt	sMM	EURAS	E1
17.	Allium oleraceum L.	G	Per	ScHe	MsOgTr	XMs	StPrSil	BTsM	EUR	E1 E2 I.1
18.	Allium podolicum (Asch. et Graebn.) Bloc- ki ex Racib.	G	Per	ScHe	MsTr	MsX	PtSiSt	sM	PONT	E1 E2
19.	Allium sativum L.	G	Per	He	MgTr	XMs	RuCu	M	WAS	J6.4
20.	Allium sphaerocephalon L.	G	Per	He	MsTr	MsX	PtSt	sMM	EURAS	E1
21.	Allium waldschmidii G.Don fil.	G	Per	He	MsTr	XMs	St	sMM	SEUR	
Asparagaceae										
22.	Asparagus officinalis L.	HKr	Per	ScHe	MgTr	XMs	PrSt	TsMM	EUR-WAS	E1 E2
Butomaceae										
23.	Butomus umbellatus L.	HKr	Per	He	MsTr	HgHel	PaAq	B-M	EURAS	C3.244
Convallariaceae										
24.	Convallaria majalis L.	G	Per	HeSc	MsTr	Ms	Sil	BTsM	EURAS	G1 I.2

№	Species within genus	Biomes						Adventive status	
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hymromorphs	Zonality	Regionalities	Biotopes
25.	Polygonatum multiflorum (L.) All.	G	Per	Sc	MgTr	Ms	Sil	TsMM	EURAS
	Cyperaceae								
26.	Bolboschoenus maritimus (L.) Palla	HKr	Per	He	AlkMgTr	HeIHg	AqPal	PL	CIRCPOL
27.	Carex acuta L.	HKr	Per	He	MsTr	HeIHg	AqPal	B-M	EUR-SIB
28.	Carex distans L.	HKr	Per	He	AlkMgTr	HgMs	PrHal	TsMM	SEUR
29.	Carex hirta L.	HKr	Per	ScHe	OgMsTr	HgMs	SilPr	TsMM	EUR
30.	Carex lachenalii Schuhm	HKr	Per	ScHe	MsTr	Ms	SilPr	B-M	EUR-WSIB
31.	Carex ligerica J.Gay.	HKr	Per	He	OgTr	Ms	Ps	T	EURAS-SIB
32.	Carex melanostachya Bieb. ex Willd.	HKr	Per	ScHe	AlkMgTr	Ms	PalPrSil	TsMM	EURAS
33.	Carex muricata L.	HKr	Per	ScHe	MgTr	Ms	Sil	TsMM	EUR-WAS
34.	Carex otrubae Podp.	HKr	Per	ScHe	MgTr	HgMs	HalSilPr	PL	CIRCPOL
35.	Carex praecox Schreb.	HKr	Per	He	MgTr	XMs	StPr	BTsM	EURAS

№	Species within genus	Climamorphs				Biomes				Regionalities				Biotopes		Adventive status
		Tropohomorphs	Heiomorphs	Hygronomorphs	Cenomorphs	Zonality	Regionalities	CIRCPOL	D2.3	CIRCPOL	EURAS+EAM	EURAS	EURAS	G11	G11	
36.	<i>Carex pseudocyper-</i> <i>rus L.</i>	HKr	Per	HeSc	OgMsTr	Hg	SilPal	PL	CIRCPOL							
37.	<i>Carex riparia</i> Curtis	HKr	Per	He	MsTr	Hg	Pal	BtSm						D5.13		
38.	<i>Carex spicata</i> Huds.	HKr	Per	HeSc	MgTr	XMs	PrSil	TsMM						G11		
39.	<i>Carex stenophylla</i> Wahlenb.	HKr	Per	He	AlkMgTr	MsX	PrSt	TsMM						G11		
40.	<i>Carex supina</i> Wahlenb.	HKr	Per	SchHe	OgTr	XMs	SilPSt	TsMM						E1		
41.	<i>Carex vesicaria</i> L.	HKr	Per	He	MsTr	MsHg	PrPal	BtSm						D5.2145		
42.	<i>Carex vulpina</i> L.	HKr	Per	He	MsTr	MsHg	PalPr	TsMM						D5.219		
43.	<i>Cyperus fuscus</i> L.	T	Ann	He	OgMsTr	Hg	PsPal	TsMM-sTr						C2		
44.	<i>Eleocharis acicularis</i> (L.) Roem. et Schult.	HKr	Per	SchHe	MsTr	HeHg	PrPal	PL						C2.33		
45.	<i>Eleocharis palustris</i> (L.) Roem. et Schult.	HKr	Per	He	MgTr	Hg	PrPal	PL						C3.24A		

Nº	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Heteromorphs	Zonality	Regionalties	Biotopes	Adventive status
46.	<i>Eleocharis uniglumis</i> (Link) Schult.	HKr	Per	He	AlkMgTr	Hg	Hal-PalPr	PL	CIRCPOL	
47.	<i>Juncellus serotinus</i> (Rottb.) Clarke	HKr	Per	He	MsTr	HgHe	AqPal	sMBB-sTr	EURAS	C3.61
48.	<i>Scirpoides holoschoenus</i> (L.) Soják.	G	Per	He	OgTr	HgMs	PrPs	TsMM	EURAS	E1.9
49.	<i>Scirpus lacustris</i> L.	HKr	Per	He	MsTr	HeHg	AqPal	B-M	EUR-SIB	D5.12
50.	<i>Scirpus sylvaticus</i> L.	HKr	Per	HeSc	MsTr	Hg	SilPal	BtsM	EURAS	D2.3
51.	<i>Scirpus tabernaemontani</i> C. C. Gmel.	HKr	Per	He	AlkMsTr	Hg	Pal	B-M	EURAS	D5.1
	Hyacinataceae									
52.	<i>Hyacinthella leucophaea</i> (C.Koch) Schur	G	Per	He	MsTr	XMs	PtSt	sM	EUR	E1
53.	<i>Muscari neglectum</i> Guss.	G	Per	He	MsTr	XMs	St	TsMM	EURAS	E1
54.	<i>Ornithogalum bouscheanum</i> (Kunth) Aschers.	G	Per	HeSc	MsTr	Ms	PrSil	TsMM	EURAS	G1.A
55.	<i>Ornithogalum fischieranum</i> Krasch.	G	Per	He	AlkMsTr	MsX	Hal-PrSt	sMM	EURAS	E1

№	Species within genus	Zonality						Regionallities	Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs			
56.	<i>Ornithogalum fimbriatum</i> Wild.	G	Per	ScHe	MsTr	Ms	Sil	M	EURAS	G1.A
57.	<i>Ornithogalum umbellatum</i> L.	G	Per	He		Ms	PtSil	TsMM	EURAS	G1.A
58.	<i>Scilla bifolia</i> L.	G	Per	ScHe	MsTr	XMs	StSil	TsMM	EURAS	G1.A
59.	<i>Scilla sibirica</i> Haw.	G	Per	HeSc	MgTr	Ms	Sil	sMM	EURAS	G1.A
Hydrocharitaceae										
60.	<i>Elodea canadensis</i> Michx.	Hd	Per	HeSc	OgMsTr	Hy r	Aq	PL	AM	C2.33 Adv
61.	<i>Hydrocharis morsus-ranae</i> L.	Hd	Per	ScHe	MsTr	Pl er	Aq	BTsM	EUR-WSIB	C1.222
62.	<i>Stratiotes aloides</i> L.	Hd	Per	ScHe	MsTr	Pl r	Aq	BTsM	EUR-WSIB	C1.222
63.	<i>Vallisneria spiralis</i> L.	Hd	Per	HeSc	MsTr	Hy r	Aq	T-Tr	CIRCPOL	C2.333 Adv
Iridaceae										
64.	<i>Crocus reticulatus</i> Stev. ex Adam.	G	Per	He	AlkMsTr	MsX	PrSt	sMM	EUR	E1
65.	<i>Iris halophila</i> Pall.	HKr	Per	He	AlkMsTr	XMs	HalPr	sM	EURAS	E1

№	Species within genus	Biomes						Adventive status		
		Climamorphs	Biomorphs	Heiromorphs	Tropohomorphs	Cenomorphs	Zonality	Regionality		
66.	<i>Iris pseudacorus</i> L.	G	Per	He	MsTr	Hg	Pal	EUR-WSIB	C3.23	
67.	<i>Iris pumila</i> L.	HKr	Per	He	MsTr	MsX	TsM	EURAS	E1	
Juncaceae										
68.	<i>Juncus articulatus</i> L.	HKr	Per	He	OgMsTr	MsHg	PalPr	PL	EURAS+AM	C3.513
69.	<i>Juncus bufonius</i> L.	T	Ann	ScHe	OgMsTr	MsHg	PsPr	PL	CIRCPOL	C3.5131
70.	<i>Juncus effusus</i> L.	Hel	Per	He	MsTr	Hg	Pal	B-M	EUR	D5.3
71.	<i>Juncus gerardii</i> Loisel.	HKr	Per	He	AlkMsTr	HgMs	HalPr	PL	CIRCPOL	E3.433
72.	<i>Juncus inflexus</i> L.	HKr	Per	He	MsTr	MsHg	Pr	TsMM	EUR-WAS	E3.433
73.	<i>Juncus tenagelii</i> Ehrh. ex L.fil.	T	Ann	He	OgTr	MsHg	PrPs	sMM	EUR-WSIB	D5.2
74.	<i>Lusula multiflora</i> (Ehrh.) Lej.	HKr	Per	ScHe	MsTr	Ms	SilPr	PL	CIRCPOL	E2
Juncaginaceae										
75.	<i>Triglochin maritimum</i> L.	HKr	Per	He	AlkTr	MsHg	Pal-HalPr	B-M	EURAS+NAM	E3.422

№	Species within genus	Zonality						Regionalities		Biotopes		Adventive status
		Climamorphs			Tropohomorphs			Hypromorphs			Cenomorphs	
76.	<i>Triglochin palustre</i> L.	HKr	Per	He	MgTr	MsHg	HalPal-Pr	PL	CIRCPOL	E3.422		
Lemnaceae												
77.	<i>Lemna gibba</i> L.	Hel	Per	ScHe	MsTr	Pl er	Aq	T-Tr	CIRCPOL	C1.221		
78.	<i>Lemna minor</i> L.	Hel	Per	ScHe	MsTr	Pl er	Aq	PL	CIRCPOL	C1.221		
79.	<i>Lemna trisulca</i> L.	Hel	Per	HeSc	MsTr	Hy er	Aq	PL	CIRCPOL	C1.2		
80.	<i>Spirodela polyrrhiza</i> (L.) Schleid.	Hel	Per	He	MsTr	Pl er	Aq	PL	CIRCPOL	C1.221		
81.	<i>Wolffia arrhiza</i> (L.) Horkel ex Wimm.	Hel	Per	He	MsTr	Pl er	Aq	T-Tr	CIRCPOL	C1.221		
Liliaceae												
82.	<i>Gagea bulbifera</i> (Pall.) Salisb.	G	Per	He	MsTr	MsX	PtSt	sMM	EURAS-WSIB	E1		
83.	<i>Gagea erubescens</i> (Bess.) Schult. et Schult.fil.	G	Per	ScHe	MgTr	Ms	RuSMn	T	EUR	G1		
84.	<i>Gagea minima</i> (L.) Ker-Gawl.	G	Per	HeSc	MsTr	Ms	PtSil	TsM	EUR-WSIB	G1		

№	Species within genus	Zonality						Regionalities		Biotopes		Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Regio	Geographical status	Geographical status	Geographical status	
85.	<i>Gagea pusilla</i> (F.W.Schmidt) Schult. et Schult. f.	G	Per	He	MgTr	XMs	RuSt	sM	EUR-WAS	E1		
86.	<i>Tulipa queretorum</i> Klokov et Zoz.	G	Per	HeSc	MgTr	Ms	StSil	sMM	PONT	G1		
	Najadaceae											
87.	<i>Caulinia minor</i> (All.) Coss. et Germ.	T	Ann	HeSc	MsTr	Hy r	Aq	T-BsTr	EURAS+AF	C2.33		
88.	<i>Najas marina</i> L.	T	Ann	HeSc	MsTr	Hy r	Aq	M	EURAS	C2.33		
	Orchidaceae											
89.	<i>Anacamptis palustris</i> (Jacq.) R.M. Bateman, Prilgen et M.W. Chase	G	Per	He	AlkMsTr	MsHg	PrPal	B-M	EURAS+NAF	E3.43		
90.	<i>Dactylorhiza incarnata</i> (L.) Soo.	G	Per	He	MgTr	MsHg	PrPal	BTsM	EUR-WAS	E3.43		
91.	<i>Epipactis palustris</i> (L.) Crantz	G	Per	ScHe	OgMsTr	MsHg	PalPr	B-M	EURAS-ESIB	C3.61		
92.	<i>Orchis militaris</i> L.	G	Per	HeSc	MsTr	Ms	SilPr	B-M	EURAS	E2		

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Hygromorphs	Zonality	Regionalities	Biotopes	Adventive status	
									Ann	He
Poaceae										
93.	<i>Aegilops cylindrica</i> Host	T	Ann	He	OgM- sTr	MsX	PsPtlRu	M	EURAS	E1.2G
94.	<i>Agropyron laurencoanum</i> Procul.	HKr	Per	He	OgTr	MsX	Ps	sM	PONT	E1.2G
95.	<i>Agropyron pectinatum</i> (Bieb.)Beaux.	HKr	Per	He	MsTr	X	St	TsMM	EURAS	E1
96.	<i>Agrostis gigantea</i> Roth	HKr	Per	ScHe	MsTr	Ms	SilPr	TsM	EUR	E1.721
97.	<i>Agrostis stolonifera</i> L.	HKr	Per	ScHe	OgM- sTr	Hg	PrPal	B-M	EUR-WAS	C3.513 E3.4422
98.	<i>Agrostis vinealis</i> Schreb.	HKr	Per	ScHe	OgTr	Ms	StSMnPs	B-M	EURAS-EAM	G3.4232
99.	<i>Alopecurus aequalis</i> Sobol.	T	Ann	He	OgTr	Hg	PrPal	B-M	CIRCPOL	E3.43
100.	<i>Alopecurus arundinaceus</i> Poir.	G	Per	He	Alk-MgTr	HgMs	HalPalPr	B-M	EURAS	E3.44
101.	<i>Alopecurus pratensis</i> L.	HKr	Per	He	MgTr	HgMs	Pr	B-M	EUR-WSIB	E3.44
102.	<i>Anisantha sterilis</i> (L.) Nevski	T	Ann	ScHe	MsTr	MsX	PrStRu	PL	CIRCPOL	J

№	Species within genus	Biotopes						Adventive status				
		Zonality	Regionalities	Cenomorphs	Trophomorphs	Hygrromorphs	Biomorphs					
103.	<i>Anisantha tectorum</i> (L.) Nevski	T	Ann	ScHe	OgMgTr	MsX	PsRu	T-Tr	EUR-WAS	J	E1.2G	Adv
104.	<i>Apera spica-venti</i> (L.) Beauv.	T	Ann	ScHe	OgTr	XMs	RuPs	BTsM	EUR-WSIB	E1.2G	Adv	
105.	<i>Arrhenatherum elatius</i> (L.) J. et C. Presl	HKr	Per	ScHe	MsTr	XMs	SilPr	TsMM	EUR	GI		
106.	<i>Avena fatua</i> L.	T	Ann	He	MsTr	MsX	Ru	M	EURAS+NAF	J2	Adv	
107.	<i>Beckmannia eruciformis</i> (L.) Host.	HKr	Per	ScHe	AlkMsTr	HgMs	PalPr	B-M	EUR-WAS	E3.43		
108.	<i>Bothriochloa ischaemum</i> (L.) Keng	HKr	Per	He	OgTrCa	MsX	PsSt	TsMM	EURAS	E1		
109.	<i>Bromopsis nemoris</i> (Leys.) Holub	G	Per	He	OgMgTr	XMs	RuPrSt	B-M	CIRCPOL	E1		
110.	<i>Bromopsis riparia</i> (Rehm.) Holub	G	Per	He	OgTr	MsX	PrSt	TsMM	EEUR	E1		
111.	<i>Bromus hordeaceus</i> L.*	T	Ann-Bien	ScHe	MsTr	XMs	Ru	TsMM	EUR-WAS	J		

№	Species within genus	Zonality						Biotopes	Adventive status
		Climamorphs	Heliomorphs	Hymromorphs	Tropohomorphs	Cenomorphs	Regionalties		
112.	<i>Bromus squarrosus</i> L.	T	Ann-Bien	ScHe	OgMgTr	MsX	RuPsSt	TsMM	EUR-WAS
113.	<i>Calamagrostis canescens</i> (Web.) Roth	HKr	Per	ScHe	MsTr	MsHg	SilPrPal	BT	EUR-WSIB
114.	<i>Calamagrostis epigeios</i> (L.) Roth	G	Per	ScHe	OgMsTr	Ms	PsSilPr	BsMM	EURAS
115.	<i>Cenchrus longispinus</i> (Hack.) Fernald	T	Ann	He	OgTr	MsX	PsRu	PL	NSAM
116.	<i>Crypsis schoenoides</i> (L.) Lam.	T	Ann	He	AlkOgTr	Ms	HalPsPr	sMM	EUR-WAS
117.	<i>Cynodon dactylon</i> (L.) Pers.	HKr	Per	He	AlkMsTr	XMs	HalPr	PL	SEURAS+NAM
118.	<i>Dactylis glomerata</i> L.	HKr	Per	ScHe	OgMsTr	Ms	SilPr	B-M	EUR-WAS
119.	<i>Digitaria aegyptica</i> (Retz.) Willd.	T	Ann	ScHe	OgTr	MsX	Ru	TsMM	EURAS
120.	<i>Digitaria sanguinalis</i> (L.) Scop.	T	Ann	He	OgMsTr	Ms	PsRu	TsMM	EURAS

№	Species within genus	Biogeographical Zonation										Adventive status
		Climamorphs			Biomorphs			Hermomorphs			Regionalities	
121.	<i>Echinochloa crusgalli</i> (L.) Beauv.	T	Ann	He	OgMgTr	MsHg	Ru	TsMM	EURAS	J2	Adv	
122.	<i>Elytrigia elongata</i> (Host) Nevski	HKr	Per	He	AlkTr	Ms	PrHal	TsMM	EURAS	E6		
123.	<i>Elytrigia intermedia</i> (Host) Nevski	HKr	Per	ScHe	OgMsTr	MsX	StPpS	TsMM	EUR-AS	E1		
124.	<i>Elytrigia maeotica</i> (Prokud.) Prokud.	G	Per	ScHe	MsTr	MsX	SilPrSt	sMM	EURAS	E1		
125.	<i>Elytrigia repens</i> (L.) Nevski	G	Per	ScHe	MsTr	MsX- MsHg	StPrRu	B-M	EURAS	J		
126.	<i>Eragrostis minor</i> Host	T	Ann	He	OgMsTr	MsX	PsRu	TsMM	CIRCPOL	E1.2G	Adv	
127.	<i>Festuca beckeri</i> (Hack) Trautv.	HKr	Per	He	OgTr	X	StSiPs	AsM	EUR-ESIB	G3.4 E1.721		
128.	<i>Festuca pratensis</i> Huds.	HKr	Per	ScHe	MsTr	HgMs	Pr	B-M	EUR-WAS	E2		
129.	<i>Festuca regeliana</i> Pavl.	HKr	Per	He	AlkTr	MsHg	HalPr	TsMM	EURAS-SIB	E6 E2		
130.	<i>Festuca rubra</i> L.	HKr	Per	ScHe	MgTr	MsX	SilPr	PL	CIRCPOL	E2 G1		
131.	<i>Festuca valesiaca</i>	HKr	Per	He	MgTr	X	St	sMM	EUR-WSIB	E1.22		

№	Species within genus	Zonality						Regionalities	Biotopes	Adventive status
		Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Regiomorphs	Biogeographical status			
132.	<i>Glyceria fluitans</i> (L.) R.Br.	HKr	Per	He	MsTr	Hel	PaLaq	B-M	EUR+EAM	C3.251
133.	<i>Glyceria maxima</i> (C.Hartm.) Holub.	HKr	Per	He	MsTr	HgHel	PaLaq	BTsM	CIRCPOL	C3.251
134.	<i>Glyceria notata</i> Chevall.	HKr	Per	He	MsTr	Hg	PrPal	TsMM	CIRCPOL	D5
135.	<i>Hierochloe odorata</i> (L.) Beauv.	G	Per	ScHe	OgMsTr	XMs	SilSpPr	PL	CIRCPOL	E1
136.	<i>Hierochloe repens</i> (Host) Beauv.	G	Per	ScHe	OgMsTr	XMs	PssSilSt-Pr	PL	CIRCPOL	G3.4232
137.	<i>Hordeum leporinum</i> Link.	T	Ann	He	MsTr	MsX	Ru	B-M	EUR-WAS	J Adv
138.	<i>Hordeum murinum</i> L.	T	Ann	He	MsTr	MsX	RuDsSt	B-M	EUR-WAS	J Adv
139.	<i>Koeleria cristata</i> (L.) Pers.	HKr	Per	He	MgTr	X	St	TsMM	EUR-WAS	E1
140.	<i>Koeleria sabuletorum</i> (Domin) Klokov	HKr	Per	He	OgTr	MsX	PsSt	sMM	EURAS	E1
141.	<i>Leersia oryzoides</i> (L.) Sw.	G	Per	HeSc	OgMsTr	HelHg	PrPal	TsM	CIRCPOL	C3.252
142.	<i>Leymus sabulosus</i> (M. Bieb.) Tzvelev	G	Per	He	OgTr	MsX	PsRu	TsM	EEUR	E1.2G

№	Species within genus	Climamorphs						Biota species						Adventive status
		Heliomorphs			Tropohomorphs			Hermomorphs			Zonality			
143.	<i>Lolium perenne</i> L.	HKr	Per	He	MgTr	XMs	RuPr	B-M	EUR	J				
144.	<i>Melica picta</i> C.Koch	HKr	Per	ScHe	CaMsTr	XMs	Sil	B-M	EUR	G1				
145.	<i>Melica transsilvanica</i> Schur	HKr	Per	ScHe	CaMsTr	MsX	SMnSt	sM	PONT	E1 G1				
146.	<i>Phalaroides arundinacea</i> (L.) Rauschert	HKr	Per	ScHe	MgTr	MsHg	PrPal	PL	CIRCPOL	C2.26				
147.	<i>Phleum nodosum</i> L.	HKr	Per	ScHe	MgMsTr	XMs	SilStPr	TsMM	EURAS	E1				
148.	<i>Phleum pratense</i> L.	HKr	Per	He	MgTr	Ms	Pr	PL	EURAS	E2				
149.	<i>Phragmites australis</i> (Cav.) Trin.ex Steud.	HKr	Per	ScHe	MsTr	HeI	PalAq	B-M	EURAS	C3.21				
150.	<i>Poa angustifolia</i> L.	HKr	Per	ScHe	MsMgTr	MsX	SilPrSt	B-M	EURAS	E1				
151.	<i>Poa annua</i> L.	T	Ann	HeSc	MsTr	Ms	RuSilPr	PL	CIRCPOL	E2 J				
152.	<i>Poa bulbosa</i> L.	HKr	Per	He	OgMsTr	MsX	RuSilSt	TsMM	EUR-WAS	E1 J				
153.	<i>Poa compressa</i> L.	HKr	Per	ScHe	OgMsTr	MsX	RuSt	TsMM	EUR	E1				
154.	<i>Poa nemoralis</i> L.	HKr	Per	ScHe	MsTr	XMs	Sil	B-M	CIRCPOL	G1				

№	Species within genus	Biotopes										Adventive status	
		Chimaerophs			Biomorphs			Tropohormorphs			Hermomorphs		
Zonality		Regionallities		Cenomorphs		Hermomorphs		Tropohormorphs		Biomorphs		Chimaerophs	
155.	<i>Poa palustris</i> L.	HKr	Per	He	MsTr	MsHg	PalPr	BTsM	CIRCPOL	D2.3			
156.	<i>Poa pratensis</i> L.	G	Per	He	MsTr	Ms	Pr	B-M	CIRCPOL	E2			
157.	<i>Poa sylvicola</i> Guss.	HKr	Per	HeSc	MgTr	HgMs	SiPal-Pr	sMM	CIRCPOL	E2 G1			
158.	<i>Puccinella distans</i> (Jacq.) Parl.	HKr	Per	He	AlkMsTr	XMs	RuHal-Pr	STsM	EUR-WAS	E6			
159.	<i>Sclerochloa dura</i> (L.) Beauv.	T	Ann	He	MsTr	XMs	StRu	sMM	EURAS	J	Adv		
160.	<i>Secale sylvestre</i> Host	T	Ann	He	OgTr	MsX	StRUpS	sMM	EURAS	E1			
161.	<i>Setaria glauca</i> (L.) Beauv.	T	Ann	He	MsTr	XMs	PsRu	TsMM	EURAS	J	Adv		
162.	<i>Setaria verticillata</i> (L.) H. B.	T	Ann	ScHe	MgTr	Ms	Ru	B-M	CIRCPOL	J	Adv		
163.	<i>Setaria viridis</i> (L.) Beauv.	T	Ann	He	OgMsTr	XMs	PsRu	B-M	CIRCPOL	J	Adv		
164.	<i>Stipa capillata</i> L.	HKr	Per	He	MsTr	X	PsSt	TsMM	EURAS	E1			
165.	<i>Stipa lessingiana</i> Trin. et Rupr.	HKr	Per	He	MsTr	X	St	sMM	EURAS	E1			
166.	<i>Tragus racemosus</i> (L.) All.	T	Ann	He	OgTr	X	PsRu	TsMM	EURAS	E1.2G	Adv		

№	Species within genus	Biogeographical status						
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Zonality	Regionalities
167.	<i>Zizania latifolia</i> Stapf.	HKr	Per	He	MsTr	Hel	Aq	BTsM
	Potamogetonaceae							
168.	<i>Potamogeton berchtoldii</i> Fieb.	HKr	Per	HeSc	MsTr	Hy r	Aq	B-M
169.	<i>Potamogeton compressus</i> L.	HKr	Per	HeSc	MsTr	Hy r	Aq	CIRCPOL
170.	<i>Potamogeton crispus</i> L.	HKr	Per	HeSc	MsTr	Hy r	Aq	C1 C2
171.	<i>Potamogeton gramineus</i> L.	HKr	Per	SchE	MsTr	PIHy r	Aq	PL
172.	<i>Potamogeton lucens</i> L.	HKr	Per	HeSc	MsTr	Hy r	Aq	CIRCPOL
173.	<i>Potamogeton natans</i> L.	HKr	Per	SchE	MsTr	Pl r	Aq	BT
174.	<i>Potamogeton pectinatus</i> L.	HKr	Per	HeSc	MsTr	Hy r	Aq	CIRCPOL
175.	<i>Potamogeton perfoliatus</i> L.	HKr	Per	HeSc	MsTr	Hy r	Aq	C1 C2
	Sparganiaceae							
176.	<i>Sparganium erectum</i> L.	HKr	Per	He	MsTr	Hel	PalAq	B-M
	Typhaceae							

№	Species within genus	Biogeographical regions										Adventive status		
		Climamorphs			Biomorphs			Chenomorphs			Zonality			
Biotopes														
177.	<i>Typha angustifolia</i> L.	HKr	Per	He	MsTr	Hel	PalAq	TsMM	EURAS-EAM	C1.2 D5.13				
178.	<i>Typha latifolia</i> L.	HKr	Per	He	MgTr	Hel	PalAq	PL	CIRCPOL	C1.2 D5.13				
179.	<i>Typha laxmannii</i> Lepech.	HKr	Per	He	AlkMsTr	Hel	PalAq	TsMM	EURAS	C1.2 D5.13	Adv			
Zannichelliaceae														
180.	<i>Zannichelia palustris</i> L.	HKr	Per	HeSc	AlkMgTr	Hy r	Aq	TsM	EURAS	C 2 C1.2				
Kiac Magnoliopsida														
Aceraceae														
181.	<i>Acer campestre</i> L.	Ph	Arb	ScHe	MgMsTr	XMs	SMnSil	TsMM	EUR	G1				
182.	<i>Acer negundo</i> L.	Ph	Arb	He	Og-MgTr	MsX-HgMs	SilCu-Ru	TsMM	AM+EUR	J G1	Adv			
183.	<i>Acer platanoides</i> L.	Ph	Arb	HeSc	MgMsTr	Ms	Sil	TsM	EUR	J G1				
184.	<i>Acer pseudoplatanus</i> L.	Ph	Arb	ScHe	MgMsTr	Ms	SilCu	TsMM	EUR	J	Adv			

№	Species within genus	Zonality										Regionalities		Biotopes	Adventive status		
		Climamorphs					Hygromorphs					Cenomorphs					
		Heliomorphs					Tropohomorphs					Regionalities					
		Ph	Arb	ScHe	MsTr	XMs	SilCu	B-M	NAM	J	Adv						
185.	<i>Acer saccharinum</i> L.																
186.	<i>Acer tataricum</i> L.	Ph	Arb	ScHe	Og-MgTr	MsX-HgMs	SilSMn	TsMM	EURAS	Gl							
	Amaranthaceae																
187.	<i>Amaranthus albus</i> L.	T	Ann	He	MsTr	MsX	Ru	PL	CIRCPOL	J	Adv						
188.	<i>Amaranthus blitoides</i> S. Wats.	T	Ann	He	MsTr	MsX	Ru	TsMM	EUR-WAM	J	Adv						
189.	<i>Amaranthus caudatus</i> L.	T	Ann	He	MgTr	XMs	CuRu	Tr	SAM	J	Adv						
190.	<i>Amaranthus retroflexus</i> L.	T	Ann	He	MsTr	MsX	Ru	PL	CIRCPOL	J	Adv						
	Anacardiaceae																
191.	<i>Cotinus coggygria</i> Scop.	Ph	Fr	ScHe	Og-MgTr	MsX	SMnCu	sMM	EURAS	J	Adv						
192.	<i>Rhus typhina</i> L.	Ph	Arb	He	MsTr	MsX	SilCu	B-M	NAM	J	Adv						
	Apiaceae																
193.	<i>Aegopodium podagraria</i> L.	G	Per	HeSc	MgTr	Ms	Sil	B-M	EUR-WAS	Gl							

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalities	Biotopes		Adventive status
										G1	EUR	
194.	<i>Aethusa cynapium</i> L.	T HKr	Ann Bien	ScHe	MsTr	XMs	SilRu	BTsM	EUR	G1	Adv	
195.	<i>Antriscus cerefolium</i> (L.) Hoffm.(<i>A. longirostris</i> Bertol.)	T HKr	Ann	HeSc	MsTr	XMs	Ru	B-M	EURAS	J G1		
196.	<i>Chaerophyllum temulum</i> L.	T HKr	Bien	HeSc	MsTr	Ms	RuSil	B-M	EUR	G1 J		
197.	<i>Cicuta virosa</i> L.	Hél HKr	Per Bien	HeSc He	MsTr MsTr	Hg	Pal	B-M	EURAS	D2.3		
198.	<i>Conium maculatum</i> L.					Ms	Ru	PL	EUR-WAS	J	Adv	
199.	<i>Daucus carota</i> L.	T HKr	Per	ScHe	Og-MgTr	XMs	Ru	PL	EUR	J		
200.	<i>Eryngium campestre</i> L.	G HKr	Per Per	He ScHe	MsTr Og-MsTr	X XMs	St StPr	TsM TsMM	EURAS EUR-WAS	E1		
201.	<i>Eryngium planum</i> L.									E2 E1		
202.	<i>Falcaria vulgaris</i> Bernch.	HKr	Bien	He	MgTr	MsX	RuSt	TsMM	EUR-WAS	E1		

№	Species within genus	Biotope						Adventive status
		Zonality	Regionalities	Cenomorphs		Hermomorphs		
203.	<i>Heracleum sibiricum</i> L.	HKr	Bien	ScHe	MsTr	Ms	SilPr	BTsM EUR-WSIB E2
204.	<i>Levisticum officinale</i> W.D.J. Koch	HKr	Per	ScHe	MsTr	XMs	RuCu	BTsM EURAS J Adv
205.	<i>Oenanthe aquatica</i> (L.) Poir.	HKr	Per	ScHe	MsTr	Hg	Pal	BTsM EUR-WAS C3.246C1 C2
206.	<i>Pastinaca sylvestris</i> Mill.	HKr	Bien	ScHe	MsTr	Ms	SilPr	TsMM EURAS E2
207.	<i>Peucedanum carvifolia</i> Vill.	HKr	Per	ScHe	MsTr	Ms	SilPr	EUR E2
208.	<i>Peucedanum ruthenicum</i> Bieb.	HKr	Per	He	MsTr	MsX	HalSt	sMM EUR E6
209.	<i>Seseli campestre</i> Besser	HKr	Per	He	MsTr	MsX	St	B-M EURAS E1
210.	<i>Seseli pallasi</i> Besser	HKr	Bien	He	CaMsTr	X	Pt	TsMM EUR E1
211.	<i>Siella erecta</i> (Huds.) M.Pimen.	HKr	Per	He	OgTr	Hg	Pal	TsMM CIRCPOL C3.24
212.	<i>Silaum silaus</i> (L.) Schinz et Theil.	HKr	Per	He	MgTr	X	HalPr	sMM EURAS E6

№	Species within genus	Biogeographical regions						Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hgromorphs	Zonality	
213.	<i>Sium latifolium</i> L.	HKr	Per	ScHe	MsTr	Hg	Pal	B-M EUR-WAS C3-248 C1 C2
214.	<i>Sium sisaroidaeum</i> DC.	HKr	Per	He	MsTr	Hg	Pal	sMM EURAS-WSIB D2,3
215.	<i>Torilis japonica</i> (Houtt.) DC.	T	Bien	ScHe	MsTr	XMs	RuSt	B-M EURAS JE1
216.	<i>Trinia multicaulis</i> (Poir.) Schischk.	HKr	Per	He	MsTr	X	St	EURAS E1
Aristolochiaceae								
217.	<i>Aristolochia clematitis</i> L.	G	Per	HeSc	MsTr	HgMs	PrSil	TsMM EUR G1 E2
Apocynaceae								
218.	<i>Vinca minor</i> L.	Ch	Per	ScHe	MsTr	Ms	PrSilRu	TsM EUR I Adv
Asclepiadaceae								
219.	<i>Asclepias syriaca</i> L.	G	Per	He	MsTr	XMs	Ru	TsM EUR-EAM I Adv
220.	<i>Vincetoxicum hirundinaria</i> Medik.	HKr	Per	HeSc	MsTr	MsX	StSMN-Sil	EUR-WAS G1 E5,2

№	Species within genus	Biotope						Adventive status
		Climamorphs			Regionalities			
		Heiomorphs	Tropomorphs	Cenomorphs	Zonality	Regionalities	Biotope	
Asteraceae								
221.	<i>Vincetoxicum rossicum</i> (Kleop.) Barbar.	HKr	Per	ScHe	MsTr	Ms	PrSMn	CAS-PONT E5.2 E2
222.	<i>Achillea micrantha</i> Willd.	HKr	Per	ScHe	OgTr	MsX	Ps	EUR E1.2 G
223.	<i>Achillea millefolium</i> L.	HKr	Per	He	MgTr	XMs	RuSt	EUR E1 J
224.	<i>Achillea nobilis</i> L.	HKr	Per	He	MsTr	MsX	StPr	EURAS E1
225.	<i>Ambrosia artemisiifolia</i> L.	T	Ann	ScHe	OgMgTr	X	Ru	NAM I J Adv
226.	<i>Ambrosia trifida</i> L.	T	Ann	He	MsTr	XMs	Ru	B-BsTr NAM I Adv
227.	<i>Anthemis cotula</i> L.	T	Ann	He	MsTr	XMs	Ru	EUR-WAS I J Adv
228.	<i>Anthemis ruthenica</i> Bieb.	T	Ann	ScHe	OgTr	X	RuSt	EUR E1 J
229.	<i>Anthemis subtinctoria</i> Dobrocz.	HKr	Ann	He	MsTr	MsX	RuSt	EURAS E1 J
230.	<i>Arctium lappa</i> L.	HKr	Bien	ScHe	MgTr	Ms	SilRu	B-M EUR-AS J G1
231.	<i>Arctium minus</i> (Hill.) Bernh.	HKr	Bien	ScHe	MgTr	Ms	Ru	B-M EUR J

№	Species within genus	Biotopes						Adventive status
		Regionalities			Zonality			
		Hymatomorphs	Cenomorphs	Hypromorphs	Tropohomorphs	Heiomorphs	Climamorphs	
232.	<i>Arctium tomentosum</i> Mill.	HKr	Bien	He	MgTr	Ms	Ru	BTsM
233.	<i>Artemisia abrotanum</i> L.	Ch	Fr	He	OgMsTr	HgMs	PalPr	TsM
234.	<i>Artemisia absinthium</i> L.	HKr	Per	He	MsTr	XMs	Ru	BTsM
235.	<i>Artemisia annua</i> L.	T	Ann	He	MsTr	XMs	Ru	sMM
236.	<i>Artemisia austriaca</i> Jacq.	Ch	Per	He	MsTr	X	RuSt	TsM
237.	<i>Artemisia campestris</i> L.	HKr	Per	He	OgMsTr	X	PsSt	TsMM
238.	<i>Artemisia dracunculus</i> L.	HKr	Per	ScHe	MsTr	Ms	P _S	B-M
239.	<i>Artemisia scoparia</i> Waldst. et Kit.	T HKr	Bien	He	MsTr	MsX	Ru	TsMM
240.	<i>Artemisia tournefortiana</i> Rchnb.	T HKr	Ann	ScHe	MsTr	Ms	Ru	sMM
241.	<i>Artemisia vulgaris</i> L.	HKr	Per	ScHe	MgTr	Ms	PrRu	B-M
242.	<i>Aster novae-angliae</i> L.	HKr	Per	ScHe	MgTr	Ms	Cul	TsMM

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalties	Biotopes		Adventive status
										Ann	He	
243.	<i>Aster salignus</i> Willd.	HKr	Per	He	MsTr	Ms	Cul	sMM	EURAS	I	Adv	
244.	<i>Bidens cernua</i> L.	T	Ann	He	MsTr	Hg	Pal	B-M	CIRCPOL	C3.24		
245.	<i>Bidens tripartita</i> L.	T	Ann	SchHe	MsTr	HgMs	PalPr	B-M	EURAS	C3.52 D2.3		
246.	<i>Calendula officinalis</i> L.	T	Ann	SchHe	MsTr	Ms	RuCul	TsM	SEUR	I	Adv	
247.	<i>Carduus acanthoides</i> L.	Ann	He	MsTr	MsX	PrSrRu	sM	S-EEUR	E1 E2	Adv		
248.	<i>Carduus crispus</i> L.	HKr	Bien	SchHe	MsTr	Ms	SilRu	BTsM	EURAS	E1 J		
249.	<i>Carduus nutans</i> L.	HKr	Bien	He	MgTr	MsX	StRu	TsMM	EUR	E1 J	Adv	
250.	<i>Carduus pseudocollinus</i> (Schmalh.) Klokov	HKr	Bien	He	MsTr	MsX	RuSt	sM	PONT	E1		
251.	<i>Centaurea borysthenica</i> Grun.	HKr	Bien	He	OgTr	MsX	Ps	sM	PONT	E1.2G		
252.	<i>Centaurea cyanus</i> L.	THKr	Ann	He	MsTr	MsX	Ru	TsMM	EURAS+AM	J	Adv	
253.	<i>Centaurea diffusa</i> Lam.	HKr	Bien	He	MsTr	X	StRu	BTsM	EUR+NAM	JE1	Adv	

№	Species within genus	Biogeographical status													
		Regionalities					Adventive status								
Climamorphs		Biomorphs		Heliomorphs		Hypromorphs		Cenomorphs		Zonality		Regionalities		Biogeotopes	
		Per	ScHe	MgTr	Ms	Pr	BTsM	EUR				E2			
254.	<i>Centaurea jacea</i> L.	HKr	Bien	He	MsTr	X	StPt	sM	PONT			E1			
255.	<i>Centaurea lavrenkoana</i> Klokov	HKr	Bien	He	OgTr	MsX	Ps	sM	PONT			E1.2G			
256.	<i>Centaurea majorovii</i> Dumb.	HKr	Bien	He	MsTr	X	St	sM	EURAS			E1			
257.	<i>Centaurea orientalis</i> L.	HKr	Per	He	MsTr	X	St	sM	EURAS			E1			
258.	<i>Centaurea pseudomaculosa</i> Dobrcz.	HKr	Bien	ScHe	MsTr	MsX	SilSt	TsM	EEUR			E1 G1			
259.	<i>Centaurea scabiosa</i> L.	HKr	Per	ScHe	MgTr	MsX	StRu	TsM	EUR-WSIB			E1 J			
260.	<i>Centaurea trichocephala</i> Bieb.	HKr	Per	ScHe	MsTr	XMs	StPr	sM	EUR-WSIB			E1 E2			
261.	<i>Chondrilla juncea</i> L.	HKr	Bien	He	OgTr	MsX	RuSPhs	TsMM	EUR-WAS			E1 J			
262.	<i>Chondrilla latifolia</i> Bieb.	HKr	Bien	He	OgTr	MsX	PtPsSt	sMM	EURAS			E1 J			

№	Species within genus	Regionalities						Biotopes		Adventive status	
		Climamorphs	Biomorphs	Heiomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regi.	J	Adv
263.	<i>Cichorium intybus</i> L.	HKr	Per	He	MsTr	MsX	RuSiPr	B-M	EUR-WAS	E1	J
264.	<i>Cirsium alatum</i> (S. B. Gmel.) Bobr.	HKr	Bien	He	AlkTr	Ms	PrHal	M	EUR	E6	
265.	<i>Cirsium incanum</i> (S. G. Gmel.) Fisch.	G	Per	He	MgTr	MsHg	RuPr	PL	EURAS	E3	
266.	<i>Cirsium setosum</i> (Willd.) Bess.	G	Per	He	MsTr	MsX	Ru	TsMM	EUR-WSIB	J	
267.	<i>Cirsium ucrainicum</i> Bess.	HKr	Bien	He	OgMsTr	X	RuSt	sM	PONT	E1	J
268.	<i>Cirsium vulgare</i> Ten.	HKr	Bien	ScHe	MgTr	XMs	Ru	B-M	EUR-WAS	J	
269.	<i>Coniza canadensis</i> (L.) Cronq.	T HKr	Ann Bien	ScHe	OgMgTr	MsX	Ru	PL	EURAS+EAM	J	Adv
270.	<i>Cosmos bipinnatus</i> Cav.	T	Ann	He	MsTr	XMs	Cu	PL	AM	I	Adv
271.	<i>Crepis rhoifolia</i> M.Bieb.	T	Ann	He	MsTr	MsX	StRu	sMM	EURAS	J	E1
272.	<i>Crepis tectorum</i> L.	THKr	Bien	He	OgMsTr	MsX	PsStRu	BtSM	EURAS-SIB	J	E1
273.	<i>Echinops sphaerocephalus</i> L.	HKr	Per	ScHe	MsTr	X	RuPrSt	sM	EURAS	E1	

№	Species within genus	Biotoypes						Adventive status
		Climamorphs		Heliomorphs		Tropohomorphs		
		Zonality		Regionallities		Hypromorphs		Cenomorphs
274.	<i>Erigeron acris</i> L.	HKr	Bien	ScHe	MsTr	MsX	RuPrSt	PL CIRCPOL E1 J
275.	<i>Erigeron podolicus</i> Bess.	HKr	Bien	He	OgMsTr	XMs	StPr	B-M EURAS E1
276.	<i>Eupatorium cannabinum</i> L.	HKr	Per	ScHe	MgTr	HgMs	SilPr	B-M EUR-WAS C3.24
277.	<i>Filago arvensis</i> L.	T	Ann	ScHe	OgMsTr	MsX	StSiRu	B-M EUR-WAS I
278.	<i>Gailardia pulchella</i> Foug.	T	Ann	He	MsTr	MsX	Cu	TsM EUR+AM I Adv
279.	<i>Galatella villosa</i> (L.) Rchb.f.	G	Per	He	MsTr	X	St	TsM EURAS E1
280.	<i>Galinsoga urticulata</i> (Kunth) Benth	T	Ann	ScHe	MsTr	HgMs	Ru	MBsTr AM J Adv
281.	<i>Galinsoga parviflora</i> Cav.	T	Ann	ScHe	MsTr	Ms	Ru	PL CIRCPOL J Adv
282.	<i>Grindelia squarrosa</i> (Pursh) Dunal.	HKr	Per	He	Og-Mg-Tr	MsX	Ru	TsMM AM J Adv
283.	<i>Helianthus annuus</i> L.	T	Ann	He	MgTr	XMs	Cu	TsMM NAM+EUR I Adv
284.	<i>Helianthus tuberosus</i> L.	G	Per	He	MgTr	XMs	Cu	TsM EUR-WAS I Adv
285.	<i>Helishrysum arenarium</i> (L.) Moench.	HKr	Per	He	OgTr	MsX	StPs	TsM EUR-WAS E1.2G

№	Species within genus	Zonality						Biotopes	Regionalities	Adventive status
		Climamorphs	Biomorphs	Heiomorphs	Tropiomorphs	Hygromorphs	Cenomorphs			
286.	<i>Heliopsis scabra</i> Dunal.	G	Per	ScHe	MsTr	XMs	Cu	B-M	AM+EUR	I
287.	<i>Hieracium umbellatum</i> L.	HKr	Per	ScHe	OgTr	MsX	StPs	B-M	EURAS	E1,2G
288.	<i>Hieracium virosum</i> Pall.	HKr	Per	ScHe	MsTr	MsX	SMnPt-St	sMM	EURAS	E1
289.	<i>Inula aspera</i> Poir.	HKr	Per	He	MsTr	MsX	PrPtSt	sMM	EURAS	E1
290.	<i>Inula britanica</i> L.	HKr	Per	He	MsTr	Ms	RuPr	sMM	EUR-EAS	E2
291.	<i>Inula germanica</i> L.	G	Per	He	MgTr	XMs	StPr	TsMM	EEUR-WAS	E2
292.	<i>Inula helelenium</i> L.	HKr	Per	He	MgTr	HgMs	Pr	M	EUR-WAS	E3,442
293.	<i>Inula sabuliflorum</i> Czern. ex Laurenceo	G	Per	ScHe	OgTr	Ms	PsSil	sM	CAS-PONT	C3.61
294.	<i>Iva xanthiiifolia</i> Nutt.	T	Ann	ScHe	OgMgTr	XMs	Ru	TsMM	AM+EUR	J
295.	<i>Jurinea calcarea</i> Klokov	HKr	Per	He	CaMsTr	X	StPt	sM	PONT	E1
296.	<i>Jurinea cyanooides</i> (L.) Rchb.	HKr	Per	He	OgMsTr	MsX	PsSt	sM	EUR	E1
297.	<i>Jurinea thrysiflora</i> Klokk.	HKr	Per	He	OgTr	MsX	SilStPs	sM	PONT	E1,2G

№	Species within genus	Regionalities						Biotopes	Adventive status
		Zonality	Cenomorphs	Hypromorphs	Tropomorphs	Chimamorphs	Biomorphs		
298.	<i>Lactuca chaixii</i> Vill.	T	Ann Bien	HeSc MgTr	Ms	Sil	TsMM	EURAS	G1.C
299.	<i>Lactuca saligna</i> L.	T	Ann Bien	He AlkTr	Ms	PrHal	TsMM	EURAS	E6
300.	<i>Lactuca serriola</i> L.	T	Ann Hkr	He Bien	MsTr	XMs	SilRu	TsMM	EUR-WAS J Adv
301.	<i>Lactuca tatarica</i> (L.) C. A. Mey.	G	Per	He	MsTr	XMs	HalRu	B-M	EURAS E6 J
302.	<i>Lapsana communis</i> L.	T	Ann	HeSc	MgTr	XMs	RuSil	B-M	EUR G4
303.	<i>Leontodon autumnalis</i> L.	Hkr	Per	SchE	MsTr	Ms	RuPr	B-M	EUR-WAS E2 I
304.	<i>Leontodon biscutellifolius</i> DC.	Hkr	Per	He	CaMsTr	XMs	PtSt	M	EURAS E1
305.	<i>Lepidotheca suaveolens</i> (Pursh) Nutt.	T	Ann	He	MsTr	MsX	Ru	PL	CIRCPOL J Adv
306.	<i>Leucanthemum vulgare</i> Lam.	Hkr	Per	SchE	MsTr	Ms	RuPr	B-M	EUR-WAS E2 I
307.	<i>Matricaria recutita</i> L.	T	Ann	He	MsTr	MsX	Ru	B-M	EURAS+ AM J Adv

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalities	Biotopes	Adventive status		
											Bien	He	MsTr
308.	<i>Onopordum acanthium</i> L.	HKr	Bien	He	MsTr	MsX	Ru	TsMM	EUR-WAS	J	Adv		
309.	<i>Petasites spurius</i> (Retz.) Rchb.	G	Per	ScHe	OgTr	MsHg	Pal	TsM	EUR-WAS	C3.61	Adv		
310.	<i>Phalacroloma annuum</i> (L.) Dumort.	T HKr	Ann-Bien Per	ScHe He	MsTr	MsX	Ru	B-M	NAM	I J	Adv		
311.	<i>Pieris hieracoides</i> L.	HKr	Bien	ScHe	OgTr	MsX	RuSt	B-M	EURAS	E1 J			
312.	<i>Pieris rigidula</i> Ledeb. ex. Speng.	HKr	Per	ScHe	OgTr	MsX	RuPs	M	EURAS	E1.2G			
313.	<i>Pilosella echooides</i> (Lumn.) F.Schultz. et Sch.Bip	HKr	Per	ScHe	OgMs-sTr	MsX	Sil-PsSt	TsMM	EUR-WAS	G3.4232			
314.	<i>Pilosella floribunda</i> (Wimmer et Grab.) Fr.	HKr	Per	He	MsTr	HgMs	RuPr	sM	EUR				
315.	<i>Pulicaria vulgaris</i> Gaertn.	T	Ann	He	AlkMs-sTr	MsHg	RuPr	TsM	EUR-WAS	E3			
316.	<i>Pyrethrum corymbosum</i> (L.) Scop.	HKr	Per	ScHe	MgTr	XMs	PrSil	BTsM	EURAS	G1 E2			
317.	<i>Rutbeckia hirta</i> L.	T	Ann	He	MsTr	Ms	Cul	B-M	NAM	I	Adv		

№	Species within genus	Biogeographical status					
		Climamorphs	Biomorphs	Heiomorphs	Tropohomorphs	Hymenomorphs	Zonality
318.	<i>Saussurea amara</i> DC.	HKr	Per	He	AlkTr	HgMs	HalPr
319.	<i>Scorzonera laciniata</i> L.	HKr	Per	He	AlkTr	X-Ms	HalStPr
320.	<i>Scorzonera parviflora</i> Jacq.	HKr	Per	He	AlkTr	Ms	HalPr
321.	<i>Scorzonera stricta</i> Hornem.	HKr	Per	He	MsOgTr	X	PtSt
322.	<i>Senecio borysthenicus</i> (DC.) Andrz. Ex Czern.	HKr	Per	SchE	OgTr	XMs	Ps
323.	<i>Senecio grandidentatus</i> Ledeb.	HKr	Per	SchE	AlkOgMsTr	XMs	sMM
324.	<i>Senecio jacobaea</i> L.	HKr	Per	He	MsTr	MsX	StPsHal-Pr
325.	<i>Senecio vernalis</i> Waldst. et Kit.	T	Ann	SchE	Og-MgTr	XMs	Ru
326.	<i>Senecio vulgaris</i> L.	T	Ann	He	MsTr	Ms	Ru
327.	<i>Serratula erucifolia</i> (L.) Boriss.	HKr	Per	He	MsTr	MsX	PtSt

№	Species within genus	Biotopes										Adventive status
		Climamorphs			Biomorphs			Hgromorphs			Zonality	
					Hgromorphs	Cenomorphs	Zonality	Regionalities			PONT	
338.	<i>Tragopogon boryste-</i> <i>cus Artemcz.</i>	HKr	Bien	He	OgTr	MsX	PsSt	sM				E1.2G
339.	<i>Tragopogon major</i> Jacq.	HKr	Bien	He	MsTr	MsX	SMn-RuSt	TsM	EUR		E1 E5.2	J
340.	<i>Tragopogon podolicus</i> (DC.) Artemcz.	HKr	Bien	He	MsTr	XMs	SMnSt	TsM	EUR		E1 E5.2	
341.	<i>Tripleurospermum</i> <i>inodorum</i> (L.) Sch.	T	Bien	He	MgTr	MsX	Ru	BTsM	EUR-WSIB	J		Adv
342.	<i>Tripolium pannonicum</i> (Jacq.) Dobrocz.	HKr	Bien	He	Alk	MsHg	Pal-PrHal	sMM	EURAS		E6	
343.	<i>Tussilago farfara</i> L.	G	Per	He	MsTr	MsHg	RuPr	PL	EURAS		E3	
344.	<i>Xanthium albinum</i> (Widd.) H. Scholtz	T	Ann	He	Og-MgTr	XMs-MsHg	Ru	TsM	EUR	J		Adv
345.	<i>Xanthium californicum</i> Greene	T	Ann	He	Og-MsTr	Ms	Ru	TsMM	NAM	J		Adv
346.	<i>Xanthium spinosum</i> L.	T	Ann	He	MsTr	HgMs-MsX	Ru	PL	CIRCPOL	J		Adv
347.	<i>Xanthium strumarium</i> L.	T	Ann	He	MsTr	HgMs-XMs	Ru	TsMM	EUR-WAS	J		Adv

№	Species within genus	Biotoxes										Adventive status
		Climamorphs	Biomorphs	Heiromorphs	Trophomorphs	Hypromorphs	Cenomorphs	Zonality	Regionalties	EcoSt	EURAS	
348.	<i>Xeranthemum annuum</i> L.	T	Ann	He	MsTr	X	RuSt	sMM	EURAS			
349.	<i>Verbесіна енсілодеа</i> (Cav.) Benth.& Hook.f.ex A.Gray	T	Ann	He	MsTr	XMs	Cul	TsMM	NAM	1	1	Adv
	Balsaminaceae											
350.	<i>Impatiens parviflora</i> DC.	T	Ann	SchE	MsTr	HgMs	SilRu	sMM	EURAS	J G1	J G1	Adv
	Berberidaceae											
351.	<i>Berberis vulgaris</i> L.	nPh	Fr	SchE	OgMsTr	MsX	SMn-Sil	TsMM	EUR		E5.2	
352.	<i>Mahonia aquifolium</i> Nutt.	nPh	Fr	HeSc	OgMgTr	Ms	SilCu	B	NAM	1	1	Adv
	Betulaceae											
353.	<i>Alnus glutinosa</i> (L.) Gaertn.	Ph	Arb	SchE	MgTr	Hg	PalSil	B-M	EUR-WSIB		G1.4113	
354.	<i>Betula pendula</i> Roth	Ph	Arb	SchE	OgMsTr	Ms	Sil	BTsM	EUR-WSIB		G3.4232	
355.	<i>Betula pubescens</i> Ehrh. (B. alba L.)	Ph	Arb	SchE	MsOgTr	Hg	Sil	BTsM	EUR-SIB		G3.4 D2.3	
	Boraginaceae											
356.	<i>Anchusa officinalis</i> L.	HKr	Bien	SchE	OgTr	MsX	RuPs	TsM	EUR	E1.2G J	E1.2G J	Adv
357.	<i>Anchusa gmelini</i> Ledeb.	HKr	Per	He	OgTr	MsX	Ps	sMM	CAS-PONT	E1.2G	E1.2G	

No	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hermomorphs	Zonality	Regionallities	Biotopes	Adventive status
358.	<i>Anchusa procera</i> Bess.	HKr	Bien	He	MsTr	X	PsPtSt	sMM	EUR	E1.2G J
359.	<i>Asperugo procumbens</i> L.	T	Ann	ScHe	MsTr	XMs	Ru	B-M	EUR-WAS	J
360.	<i>Buglossoides arvensis</i> (L.) I.M. Johnst.	T	Ann	ScHe	MsTr	MsX	Ru	B-M	EURAS	J Adv
361.	<i>Buglossoides cernjajevii</i> (Klok.) Czer.	T	Ann	He	OgTr	MsX	PtSipPs	B-M	EURAS	E1.2G
362.	<i>Cerinthe minor</i> L.	HKr	Bten	ScHe	MsTr	XMs	SMn-RuPt	TsMM	EURAS	E5.2
363.	<i>Cynoglossum officinale</i> L.	G	Ann	He	OgTr	XMs	Ru	B-M	EUR-WAS	J Adv
364.	<i>Echium vulgare</i> L.	HKr	Bien	He	MsTr	X	PsStRu	B-M	EUR-WAS	JE1
365.	<i>Lappula patula</i> (Lehm.) Menyharth	HKr	Bien	He	MsTr	X	St	sMM	AS	E1 Adv
366.	<i>Lappula squarrosa</i> (Retz.) Dumort.	HKr	Bien	He	OgMsTr	MsX	RuSt	B-M	EURAS	E1 Adv
367.	<i>Lithospermum officinale</i> L.	T	Ann	He	MsTr	X	RuStPt	TsMM	EUR-WAS	J
368.	<i>Lycopsis arvensis</i> L.	T	Bien	He	MsTr	X	RuPt	B-M	EUR	E1 Adv

Nº	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hgromorphs	Cenomorphs	Zonality	Regionalities	Biotopes	Adventive status
379.	<i>Alliaria petiolata</i> (Bieb.) Cavara et Grande	HKr	Per	HeSc	MsTr	XMs	RuSil	TsMM	EUR-WAS+NAM	G1.225	
380.	<i>Alyssum desertorum</i> Stapf.	T	Ann	He	MsTr	MsX	RuSt	sMM	EURAS	E1 J	
381.	<i>Alyssum minutum</i> Schlecht. ex DC.	T	Ann	He	MsTr	MsX	PtPs	sMM	EUR-SWAS	E1.2G	
382.	<i>Alyssum savanicum</i> Andz.	Ch	sFr	He	CaOgTr	MsX	CrPs	TsM	EEUR	E1.2G	
383.	<i>Alyssum tortuosum</i> Waldst. et Kit.	HKr	Per	He	CaOgTr	X	CrPsPt	sMM	EUR-SIB	E1.2G	
384.	<i>Arabidopsis thaliana</i> (L.) Heynh.	HKr	Ann Bien	He	OgTr	XMs	PsRu	BTsM	EURAS	J E1.2G	
385.	<i>Arabis nemorensis</i> (Hofm.) W.D.J. Koch	HKr	Ann Bien	ScHe	MsTr	HgMs	SilPr	BTsM	EUR-WAS	E2 G1	
386.	<i>Arabis pendula</i> L.	HKr	Bien	HeSc	MgTr	Ms	RuSil	T	EEURAS	G1	
387.	<i>Armoracia rusticana</i> (Lam.) G. Gartin., B.Mey. et Scherb.	HKr	Per	He	MsTr	Ms	RuCu	TsM	EUR+NAM	I	Adv
388.	<i>Barbarea stricta</i> Andrz.	T	Ann Bien	ScHe	MgTr	HgMs	PalPr	BTsM	EUR-WAS	E3	

№	Species within genus	Biotopes						Adventive status
		Cenomorphs			Regionalities			
		Tropohomorphs	Hygronomorphs	Cenomorphs	Zonality	Regionalities		
389.	<i>Barbarea vulgaris</i> R.Br.	Bien Ann	ScHe	MsMgTr	Ms	PrRu	B-M	EUR E2
390.	<i>Berteroa incana</i> (L.) DC.	HKr	ScHe	Og-MgTr	XMs	Ru	TsM	EUR-WAS J
391.	<i>Brassica campestris</i> L.	T Ann	ScHe	MsTr	XMs	Ru	BTsM	EUR J Adv
392.	<i>Brassica juncea</i> (L.) Czern.	T Ann	He	MsTr	MsX	RuCuI	sMM	AS I Adv
393.	<i>Brassica nigra</i> (L.) W.J. Koch	T Ann	ScHe	MsTr	XMs	CuI Ru	TsMM	EUR-WAS+ NAM I Adv
394.	<i>Bunias orientalis</i> L.	T HKr	Bien	ScHe	OgMgTr	XMs	Ru	BTsM EUR-WAS J Adv
395.	<i>Camelina microcarpa</i> Andrzcz.	T Ann	He	MsTr	XMs	SilRu	TsMM	EURAS J G1 Adv
396.	<i>Camelina sylvestris</i> Wallr.	HKr	Bien	He	MsTr	MsX	RuSt	TsMM EURAS E1 J Adv
397.	<i>Capsella bursa-pastoris</i> (L.) Medik.	T Ann	He	MsTr	XMs	Ru	PL	CIRCPOL J Adv
398.	<i>Cardamine dentata</i> Schult.	HKr	Per	He	MsTr	HgMs	PrPal PL	CIRCPOL E2.14

№	Species within genus	Biotoypes						Adventive status
		Zonality			Regionalities			
		Cenomorphs	Hypromorphs	Tropohomorphs	Heiomorphs	Biomorphs		
399.	<i>Cardamine impatiens</i> L.	T HKr Ann Bien	Ann HeSc MsTr	HgMs MsX	PalSil MsX	B-M Ru	EURAS TsMM	E2.14 EUR-WAS+AM
400.	<i>Cardaria draba</i> (L.) Desv.	G	Per He	MsTr	MsX	Ru	J	Adv
401.	<i>Chorispora tenella</i> (Pall.) DC.	T	Ann He	MsTr	MsX	Ru	AS	Adv
402.	<i>Crambe pontica</i> Steven ex Rupr.	HKr	Per He	MsTr	MsX	RuPs RuPs	EUR	E1.2G Adv
403.	<i>Descurainia sophia</i> (L.) Webb et Plant	T	Ann He	MsTr	XMs	Ru	CIRCPOL B-M	Adv
404.	<i>Diplotaxis muralis</i> (L.) DC.	THKr	Ann Bien	He	MsTr	MsX	EUR+NAM TsMM	Adv
405.	<i>Diplotaxis tenuifolia</i> (L.) DC.	HKrCh	Per Ann	He MsTr	MsX	Ru	EUR+NAM TsMM	Adv
406.	<i>Draba nemorosa</i> L.	T	Ann He	MsTr	XMs	Ru	BTsM CIRCPOL	J
407.	<i>Erophila verna</i> (L.) Bess.	T	Ann He	OgMsTr	XMs	RuPsSt BTsM	EUR-WAS EUR	E1 J

№	Species within genus	Zonality						Regionality		Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygronomorphs	Cenomorphs	EUR-WAS	E1		
408.	<i>Erucastrum armoracioides</i> (Czern.ex Turcz.) Cruchet	HKr	Bien	He	MsTr	MsX	RuSt	sMM	EUR-WAS	E1	Adv
409.	<i>Erysimum cheiranthoides</i> L.	HKr	Bien	He	MsTr	Ms	Ru	BTsM	EURAS	J	Adv
410.	<i>Erysimum diffusum</i> Ehrh.	HKr	Bien	He	MsTr	X	RuSt	TsM	EURAS	E1 J	Adv
411.	<i>Erysimum repandum</i> L.	THKr	Bien	He	MsTr	MsX	RuSt	TsMM	EUR-WAS	E1 J	Adv
412.	<i>Erysimum strictum</i> P. Gaertn., B.May. et Scherb.	HKr	Bien	ScHe	MsTr	MsX	RuSt	A-sM	EURAS	E1 J	
413.	<i>Euclidium syriacum</i> (L.) R.Br.	T	Per	He	MsTr	X	Ru	TsM	EURAS	J	Adv
414.	<i>Hesperidium triste</i> (L.) G.Beck	HKr	Bien	He	CaMs-MgTr	MsX	PrSt	sM	EUR	E1 E2	
415.	<i>Isatis campestris</i> Stev.ex DC.	HKr	Bien	He	MsTr	MsX	RuSt	TsM	EUR	E1	
416.	<i>Lepidium borysthenicum</i> Kleopov	HKr	Per	He	AlkTr	MsX	PrHal	sM	EUR-WAS	E6	

№	Species within genus	Zonality						Regionalities		Biotopes		Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hymromorphs	Cenomorphs	TsMM	CIRCPOL	J	Adv	
417.	<i>Lepidium campestre</i> (L.) R. Borbas	T HKr	Ann Bien	He MsMgTr	MsX	Ru	TsMM	CIRCPOL	J	J	Adv	
418.	<i>Lepidium densiflorum</i> Schrad.	THKr	Ann Bien	ScHe	MsTr	MsX	PsRu	TsM	AM	J	J	Adv
419.	<i>Lepidium latifolium</i> L.	HKr	Per	He Og-MgTr	Alk- Og-MgTr	Ms	PrHal	TsMM	EURAS+NAM	E6		
420.	<i>Lepidium perfoliatum</i> L.	T HKr	Bien	He MsTr	MsX	RuSt	sMM	EUR-WAS	J E1	Adv		
421.	<i>Lepidium ruderale</i> L.	THKr	Ann Bien	He MsTr	MsX	HaRu	PL	CIRCPOL	E6 J	Adv		
422.	<i>Microthlaspi perfoliata</i> (L.) F.K.Meyer	T	Ann	He MsTr	XMs	PrSt- Ru	TsMM	EUR-WAS	J E1 E2	Adv		
423.	<i>Rapistrum perenne</i> (L.) All	HKr	Per- Bien	He OgMsTr	Ms	RuSt	TsM	EUR	E1	Adv		
424.	<i>Rorippa amphibia</i> (L.) Bess.	G	Per	HeSc	MgTr	HyHg	AqPal	TsMM	EUR- SUB+NAM	D2.3		
425.	<i>Rorippa x anceps</i> (Wahlb.) Reichenb.	HKr	Per	ScHe	MsTr	MsHg	Pr	TsM	EUR	E3		

№	Species within genus	Zonality						Adventive status
		Cenomorphs			Regionallities			
		Hymromorphs	Trophomorphs	Heliomorphs	Biomorphs	Climamorphs		Biotopes
426.	<i>Rorippa austriaca</i> (Crantz.) Bess.	HKr G	Per	He	Og-MsTr	HgMs	RuPalPr	TsM EUR-WAS E2
427.	<i>Rorippa brachycarpa</i> (C.A.Mey.) Hayek	HKr	Per	ScHe	MsTr	Ms	Pr	TsM EUR-WAS E2
428.	<i>Rorippa palustris</i> (L.) Bess.	HKr	Per	HeSc	OgM-sTr	HgMs	Pal	PL CIRCPOL D2.3 E3.43
429.	<i>Rorippa sylvestris</i> (L.) Bess.	G HKr	Per	ScHe	MgTr	HgMs	Pr	TsM EURAS+NAM E2
430.	<i>Sinapis alba</i> L.	T	Ann	He	MsTr	XMs	Cu	sMM EUR I Adv
431.	<i>Sinapis arvensis</i> L.	T	Ann	He	MgTr	MsX	Ru	B-M EUR-WAS J Adv
432.	<i>Sisymbrium altissimum</i> L.	T HKr	Ann	He	MsTr	XMs	Ru	TsMM EUR-WAS+NAM J Adv
433.	<i>Sisymbrium loeselii</i> L.	T HKr	Ann	He	OgM-sTr	MsX	Ru	TsMM EUR-WAS+NAM J Adv
434.	<i>Sisymbrium polymorphum</i> (Murray) Roth	HKr	Ann	ScHe	MsTr	MsX	RuSMnSt	TsMM AS-EEUR E1 J Adv
435.	<i>Sisymbrium strictissimum</i> L.	HKr	Per	HeSc	Ms-MgTr	Ms	RuSMn	TsM EUR E5.2

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalties	Biotopes	Adventive status
436.	Sisymbrium volgense M. Bieb. ex Fourn.	G HKr	Per	He	OgMsTr	MsX	Ru	TsM	EUR	J	Adv
437.	Thlaspi arvense L.	T HKr	Ann Bien	He	MsTr	MsX	Ru	BTsM	CIRCPOL	J	Adv
438.	Turritis glabra L.	T HKr	Ann Bien	ScHe	MsTr	Ms	RuSMn	B-M	CIRCPOL	E5.2	
439.	Velarum officinale (L.) Reichb.	HKr	Ann Bien	He	MsTr	MsX	Ru	TsMM	CIRCPOL	J	
	Caesalpiniaceae										
440.	Gleditschia triacanthos L.	Ph	Arb	He	MsTr	MsX	SilCu	B-M	NAM	I	Adv
	Campanulaceae										
441.	Campanula bononiensis L.	HKr	Per	ScHe	MsTr	MsX	StSil	TsM	EUR-WSIB	G1 E1	
442.	Campanula cervicaria L.	HKr	Bien	ScHe	MsTr	XMs	Sil	TsMM	EUR	G1	
443.	Campanula glomerata L.	HKr	Per	ScHe	MsTr	XMs	StPrSil	BTsM	EURAS	G1 G3	
444.	Campanula rapunculoides L.	HKr	Per	ScHe	MsTr	XMs	StPrSil	BTsM	EUR-WSIB	G1 E2	
445.	Campanula sibirica L.	HKr	Bien	He	MsTr	MsX	RuPrSt	TsM	EUR-WSIB	E1 E2	

№	Species within genus	Climamorphs	Biomorphs	Heiomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalties	Biotopes	Adventive status
446.	<i>Campanula trachelium</i> L.	HKr	Per	HeSc	MsTr	Ms	SMn-Sil	TsMM	EUR-WSIB	G1.225	
447.	<i>Jasione montana</i> L.	HKr	Bien	SchE	OgTr	MsX	SilRs	TsMM	EUR	G3	
	Cannabaceae										
448.	<i>Cannabis ruderalis</i> Janisch.	T	Ann	He	MsTr	MsX	Ru	TsM	EURAS	J	Adv
449.	<i>Humulus lupulus</i> L.	G	Per	HeSc	MsTr	XMs-Hg	Sil	TsMM	EUR-WAS	J	
	Caprifoliaceae										
450.	<i>Lonicera tatarica</i> L.	nPh	Fr	SchE	MsTr	MsX	SMn-Cu	BT	EURSIB+T-NAM	I E5.2	Adv
451.	<i>Sambucus nigra</i> L.	nPh	Fr	SchE	MgMnTr	Ms	RuSil	TsMM	EUR	G1 I	
452.	<i>Sambucus racemosa</i> L.	nPh	Fr	SchE	OgMnTr	Ms	PsRu-Sil	TsM	EUR	G3 I	Adv
453.	<i>Viburnum opulus</i> L.	nPh	Fr	HeSc	MgTr	Ms	Sil	B-M	EUR-SIB	G1 I	
	Caryophyllaceae										
454.	<i>Alsine media</i> L.	T	Ann	SchE	MsMnTr	HgMs	SilRu	PL	CIRCPOL	G1 J	

№	Species within genus	Zonality						Regionalities	Biotope	Adventive status
		Climamorphs	Biomorphs	Heiromorphs	Tropohomorphs	Cenomorphs	Heteromorphs			
455.	<i>Arenaria viscosa</i> Pall. ex Spreng.	T	Ann Bien	He OgMsTr	MsX	PsStRu	TsM	EURAS	E1 J	
456.	<i>Cerastium holosteoides</i> Fries	HKr	Per	ScHe	MgMsTr	Ms	SMnPr	PL	CIRCPOL	E2 E5.2
457.	<i>Cucubalus baccifer</i> L.	HKr	Per	HeSc	MgTr	HgMs	PrSil	TsMM	EURAS	G1.225
458.	<i>Dianthus campestris</i> Bieb.	HKr	Per	ScHe	OgMsTr	XMs	PsStSMn	TsM	EUR	E5.2 E1
459.	<i>Dianthus carbonatus</i> Klokov	HKr	Per	He	OgMsTr	MsX	PrSt	sM	EUR	E1
460.	<i>Dianthus deltoides</i> L.	Ch	Per	He	OgMsTr	Ms	SMnPr	BTsM	EUR-WSIB	E2
461.	<i>Dianthus platyodon</i> Klokov	HKr	Per	He	OgTr	MsX	SiPs	sM	EUR	G4.C
462.	<i>Elisantae viscosa</i> (L.) Rupr.	T	Ann Bien	He	MsTr	XMs	PsPSt	TsMM	EUR-WAS	E1
463.	<i>Eremogone longifolia</i> (M.Bieb.) Fenzl	HKr	Per	He	OgMsTr	MsX	HalSt	TsMM	EUR-WAS	E6
464.	<i>Gypsophila acutifolia</i> Fish. ex Spreng.	HKr	Per	He	MsTr	XMs	CuPrRu	sM	EUR	E2 I
465.	<i>Gypsophila dichotoma</i> Besser	HKr	Per	He	CaMsTr	MsX	PrSt	sM	EUR	E1
466.	<i>Gypsophila paniculata</i> L.	HKr	Per	He	OgMsTr	MsX	PsSt	TsM	EUR-WSIB	E1

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalities	Biotopes	Adventive status
467.	<i>Gypsophila paulii</i> Klokov	HKr	Per	He	AlkTr	XMs	PsHalRu	sM	EUR	J E6	Adv
468.	<i>Herniaria besseri</i> Fisch. ex Hornem.	HKr	Per	He	MgTr	X	PtSt	TsMM	EUR-WAS	E1	
469.	<i>Herniaria glabra</i> L.	T	Ann	He	MsTr	MsX	RuSt	TsMM	EUR-WAS	E1	
470.	<i>Herniaria polygama</i> J. Gay.	T	Ann	He	MsTr	MsX	RuSt	TsMM	EUR	E1	
471.	<i>Holosteum umbellatum</i> L.	T	Ann	He	OgMsTr	XMs	RuPtSt	TsMM	EUR-WAS	E1	
472.	<i>Melandrium album</i> (Mill.) Garcke	HKr	Bien	ScHe	MsTr	MsX	RuSMnPr	B-M	EURAS	E2 J	
473.	<i>Minuartia viscosa</i> (Schreb.) Schinz et Thell.	T	Ann	He	OgTr	MsX	Ps	TsM	EUR	E1	
474.	<i>Moerdingia trinervia</i> (L.) Clairy.	T HKr	Ann Bien	HeSc	MsTr	HgMs	Sil	B-M	EUR-WAS	G3 G1	
475.	<i>Myosoton aquaticum</i> (L.) Moench	HKr	Per	ScHe	Og-MsTr	HgMs	PalPr	TsM	EURAS	E2 D2.3	
476.	<i>Oberna behen</i> (L.) Ikonm.	HKrCh	Per	ScHe	MsTr	XMs	RuSMnPr	B-M	EURAS	E2 E5.2	

№	Species within genus	Biogeographical zones						Adventive status		
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Zonality	Regionalities		
477.	<i>Obererra cserei</i> (Baumg.) Ikonn.	T HKr	Ann Bien	He	MsTr	XMs	PrPtSt	TsM	EUR	E1 E2
478.	<i>Oties borysthenica</i> (Grun.) Klokov	Per	He	MsOgTr	XMs	StPs	BTsM	EURAS	E1.2G	
479.	<i>Petroniagia saxifrage</i> (L.) Link	Ch	Per	He	MsTr	XMs	PtRuCu	sMM	EUR	I
480.	<i>Psammophiliella muraria</i> (L.) Ikonn.	T	Ann	He	MsTr	Ms	RuPrSt	BTsM	EURAS	E1 E2
481.	<i>Saponaria officinalis</i> L.	HKr	Per	SchE	OgMsTr	Ms	RuSMn- Pr	TsM	EUR-WSIB	E2 E5.2
482.	<i>Scleranthus annuus</i> L.	T	Ann	He	OgMsTr	XMs	RuPs	B-M	EUR	J
483.	<i>Silene chlorantha</i> (Willd.) Ehrh.	HKr	Per	SchE	OgMsTr	XMs	PsSiiSt	TsM	EUR-WSIB	G3
484.	<i>Silene dichotoma</i> Ehrh.	T HKr	Ann Bien	He	MsTr	XMs	StRu	TsMM	EUR	J
485.	<i>Silene longiflora</i> Ehrh.	HKr	Per	He	MsTr	X	PtSt	sMM	EUR-WAS	E1
486.	<i>Stellaria graminea</i> L.	HKr	Per	SchE	OgMsTr	Ms	SMnPr	B-M	EURAS	E2 E5.2

№	Species within genus	Zonality						Regionalities			Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Sil	BTsM	EUR-WSIB		
487.	<i>Stellaria holostea</i> L.	Ch	Per	HeSc	MsTr	Ms	Sil	BTsM	EUR-WSIB	G1.225		
		HKr										
488.	<i>Steris viscaria</i> (L.) Raf.	HKr	Per	ScHe	OgMsTr	XMs	PrSMn	BTsM	EUR-WSIB	G3 E2		
	Celastraceae											
489.	<i>Euonymus europaea</i> L.	nPh	Fr	HeSc	MsTr	Ms	SMn-Sil	TsMM	EUR	G1		
490.	<i>Euonymus verrucosa</i> Scop.	nPh	Fr	HeSc	MsTr	Ms	SMn-Sil	BTsM	EUR-WSIB	G1		
	Ceratophyllaceae											
491.	<i>Ceratophyllum demersum</i> L.	HKr	Per	Sc	AlkMgTr	Hy er	Aq	PL	CIRCPOL	C1.2 C2.34 C2.33		
492.	<i>Ceratophyllum submersum</i> L.	HKr	Per	Sc	MgTr	Hy er	Aq	BTsM	EUR-WAS	C1.2 C2.34		
	Chenopodiaceae											
493.	<i>Atriplex micrantha</i> C.A. mey.	T	Ann	He	AlkMsTr	HgMs	Ru-HalPr	sMM	EURAS	E6	Adv	

№	Species within genus	Climamorphs						Regionalities	Biotopes	Adventive status
		Tropohormorphs	Hygromorphs	Zonality	Cenomorphs	Regiornalities				
494.	<i>Atriplex patula</i> L.	T	Ann	He	MsTr	XMs	Ru	B-M	EUR-SIB+AM	J
495.	<i>Atriplex prostrata</i> Boucher	T	Ann	ScHe	AlkMsTr	XMs	RuHalPr	B-M	EURAS+AM	E6
496.	<i>Atriplex rosea</i> L.	T	Ann	He	MsTr	XMs	CrRu	B-M	EUR-WAS	I
497.	<i>Atriplex sagittata</i> Borkh	T	Ann	He	AlkMsTr	MsHg	RuHalPr	TsMM	EUR-WAS	E6 J
498.	<i>Atriplex tatarica</i> L.	T	Ann	He	MsTr	MsX	RuHal	B-M	EURAS	E6 J
499.	<i>Chenopodium album</i> L.	T	Ann	ScHe	MsTr	MsX	Ru	BTsM	EURAS	J
500.	<i>Chenopodium glaucum</i> L.	T	Ann	He	AlkTr	MsHg	PrRuHal	B-M	EURAS	E6
501.	<i>Chenopodium hybridum</i> L.	T	Ann	HeSc	MsTr	XMs	SilRu	B-M	EURAS	G1.225 J
502.	<i>Chenopodium polyspermum</i> L.	T	Ann	HeSc	OgMsTr	XMs	RuSMnPs	TsM	EUR-W/SIB	G3.4232 J
503.	<i>Chenopodium rubrum</i> L.	T	Ann	ScHe	OgMsTr	HgMs	RuPs	B-M	CIRCPOL	J
504.	<i>Chenopodium strictum</i> Roth	T	Ann	ScHe	OgMsTr	MsX	RuPs	sMM	EURAS	J

№	Species within genus	Climamorphs						Biota species						Adventive status
		Biomorphs			Tropohomorphs			Cenomorphs			Regionality			
		Zonality												
505.	<i>Chenopodium urbicum</i> L.	T	Ann	He	MsTr	Ms	Ru	B-M	EURAS	J				
506.	<i>Corispermum nitidulum</i> Klok.	T	Ann	ScHe	OgMsTr	MsX	StPs	sM	EUR	E1				
507.	<i>Halimione verrucifera</i> (Bieb.) Aell.	T	Ann	He	AlkTr	Ms	Hal	sMM	EURAS	E6				
508.	<i>Kochia laniflora</i> (S. G. Gmel.) Borb.	T	Ann	ScHe	OgTr	MsX	RuSiPs	TsMM	EUR-WAS	G3.4232	Adv			
509.	<i>Kochia prostrata</i> Schrad.	Ch	Per	He	OgMsTr	X	HalStPt	sMM	EURAS	E6				
510.	<i>Kochia scoparia</i> (L.) Schrad.	T	Ann	He	OgMsTr	MsX	PsRu	B-M	EURAS	I	Adv			
511.	<i>Polycnemum arvense</i> L.	T	Ann	ScHe	OgMsTr	X	RuPsSt	TsMM	EUR-WAS	E1 J	Adv			
512.	<i>Salsola soda</i> L.	T	Ann	He	AlkTr	Ms	Hal	sMM	EURAS	E6				
513.	<i>Salsola tragus</i> L.	T	Ann	He	MsTr	X	RuPpPs	sMM	EUR-WAS	J				
514.	<i>Suaeda prostrata</i> Pall.	T	Ann	He	AlkTr	HgMs	Hal	sMM	EURAS	E6				
	Clusiaceae													
515.	<i>Hypericum perforatum</i> L.	HKr	Per	ScHe	OgMsTr	Ms	SMnPr	B-M	EUR-WAS	E2 G1				

№	Species within genus	Zonality						Regionalities	Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hymromorphs	Cenomorphs			
Convolvulaceae										
516.	<i>Calystegia sepium</i> (L.) R. Br.	HKr	Per	SchE	MsTr	MsHg	PrPal	PL	CIRCPOL	E2
517.	<i>Convolvulus arvensis</i> L.	G	Per	SchE	MsTr	MsX	Ru	PL	CIRCPOL	J
518.	<i>Ipomoea purpurea</i> (L.) Roth	T	Ann	He	MgTr	Ms	Cul	BsTr	AM	I Adv
Cornaceae										
519.	<i>Swida sanguinea</i> (L.) Opiz.	Ph	Arb	HeSc	MsTr	Ms	Sil	TsMM	EUR	G1
Crassulaceae										
520.	<i>Hylotelephium argutum</i> (Haw.) Holub	G	Per	He	OgMsTr	X	PrPs	sMM	EURAS	E2
521.	<i>Sedum acre</i> L.	HKr	Per	SchE	OgTr	XMs	PsPt	B-M	EUR	E1
522.	<i>Sedum rupestre</i> L.	G	Per	SchE	MsOgTr	XMs	CuPtPs	sM	EUR	E1 I Adv
523.	<i>Sedum sexangulare</i> L.	HKr	Per	He	OgTr	XMs	PtPs	PL	CIRCPOL	E1
Cucurbitaceae										
524.	<i>Bryonia alba</i> L.	G	Per	HeSc	MsTr	Ms	SilRu	TsM	EUR	I G1 Adv
525.	<i>Echinocystis lobata</i> (Michx.) Torr. et Gray	T	Ann	SchE	MsTr	Ms	CuRu	TsM	EUR-EAS	I Adv

№	Species within genus	Regionalities						Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Zonality		
Cuscitaceae									
526.	<i>Cuscuta campestris</i> Yunck.	T	Ann	He	Par	Ms	PrRu	PL	CIRCPOL
527.	<i>Cuscuta cesatiana</i> Bertol.	T	Ann	He	Par	XMs	Ru	sMM	EURAS
528.	<i>Cuscuta epithymum</i> L.	T	Ann	He	Par	Ms	RuPr	PL	CIRCPOL
529.	<i>Cuscuta europaea</i> L.	T	Ann	He	Par	HgMs	PrSil	B-M	EURAS
530.	<i>Cuscuta monogyna</i> Vahl	T	Ann	HeSc	Par	Ms	Pr	sMM	EURAS
Dipsacaceae									
531.	<i>Cephalaria uralensis</i> (Murray) Roem. et Schult.	HKr	Per	He	CaMsTr	X	CrPt	sM	EURAS
532.	<i>Knautia arvensis</i> (L.) Coult.	HKr	Per	He	MsTr	XMs	PrSMn	B-M	EUR-WSIB
533.	<i>Scabiosa ochroleuca</i> L.	HKr	Per	ScHe	MsTr	MsX	PsPrSt	TsM	EUR-WSIB
534.	<i>Scabiosa ucrainica</i> L.	HKr	Bien	He	OgTr	MsX	StPPPs	sMM	EUR
Elaeagnaceae									
535.	<i>Elaeagnus angustifolia</i> L.	Ph	Arb-Fr	He	MsTr	X-HgMs	SMnPr	TsMM	EURAS
536.	<i>Hippophae rhamnoidea</i> L.	Ph	Arb	He	OgMsTr	Ms	RuCu	B-M	EURAS

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalities	Biotopes	Adventive status
537.	<i>Euphorbia agraria</i> Bieb.	HKr	Per	He	MsTr	X	RuPSt	sM	PONT	E1 J	
538.	<i>Euphorbia chamaesyce</i> L.	T	Ann	ScHe	AlKM _s Tr	X	Stru	sMM	EUR	E1	Adv
539.	<i>Euphorbia falcatia</i> L.	T	Ann	ScHe	MsTr	MsX	Ru	TsMM	EURAS	J	Adv
540.	<i>Euphorbia humifusa</i> Willd. ex Schlecht.	T	Ann	ScHe	MsTr	X	Stru	sMM	EURAS	E1	Adv
541.	<i>Euphorbia kalenichenkoi</i> Czern.	HKr	Per	He	MgTr	MsX	RuStPr	sM	PONT	E2	
542.	<i>Euphorbia palustris</i> L.	HKr	Per	He	MgTr	MsHg	PaIPr	TsM	EUR	E3 44	
543.	<i>Euphorbia peplus</i> L.	T	Ann	ScHe	MsTr	Ms	Ru	PL	CIRCPOL	J	Adv
544.	<i>Euphorbia platyphyllus</i> L.	T	Ann	HeSc	MsTr	XM _s	RuSMn	sMM	EURAS	E5.2	
545.	<i>Euphorbia seguieriana</i> Nesk.	HKr	Per	He	MsOgTr	MsX	PrStPs	TsMM	EUR-WAS	G3 E1	
546.	<i>Euphorbia stepposa</i> Zoz.	HKr	Per	He	MgTr	X	RuCrPt	sM	PONT	E1	
547.	<i>Euphorbia virgata</i> Wald. et Kit.	HKr	Per	ScHe	MsTr	Ms	RuPr	sMM	EURAS	E2 J	

№	Species within genus	Biotopes										Adventive status	
		Climamorphs			Heliomorphs			Tropohomorphs			Regiomorphs		
Zonality													
	Fabaceae												
548.	<i>Amorpha fruticosa</i> L.	nPh	Fr	ScHe	OgMsTr	MsX-Hg	CuRu-Sil	TsMM	EUR+EAM	F9.35 J	Adv		
549.	<i>Anthyllis macrocephala</i> Wender	HKr	Per	ScHe	OgMgTr	XMs	StPr	TsM	EUR	E2 E1			
550.	<i>Astragalus cicer</i> L.	HKr	Per	ScHe	MsTr	XMs	RuStPr	TsM	EUR	E2 E1			
551.	<i>Astragalus dasycanthus</i> Pall.	HKr	Per	He	MsTr	X	St	sMM	EUR	E1			
552.	<i>Astragalus glycyphyllos</i> L.	HKr	Per	HeSc	MgTr	Ms	Sil	TsM	EUR-WSIB	G4.C			
553.	<i>Astragalus onobrychis</i> L.	HKr	Per	He	OgMsTr	X	PsPtSt	TsMM	EURAS-WSIB	E1			
554.	<i>Astragalus ponticus</i> Pall.	HKr	Per	He	CaMsTr	MsX	StPt	sMM	EURAS	E1			
555.	<i>Astragalus ucrainicus</i> M. Pop. et Klok.	HKrCh	Per	He	CaMsTr	MsX	StCrPt	sM	PONT	E1			
556.	<i>Astragalus varius</i> S. G. Gmel.	HKr	Per	He	OgTr	MsX	StPPs	sMM	EURAS-WSIB	E1			

№	Species within genus	Biogeographical regions						Adventive status			
		Climamorphs	Heiomorphs	Tropohomorphs	Heteromorphs	Zonality	Biotopes				
557.	<i>Caragana arborescens</i> Lam.	Ph	FrA-rb	SchE	MsTr	MsX	SilCu	TsM	EURAS	I	Adv
558.	<i>Caragana frutex</i> (L.) C. Koch	Ch	Fr	He	MsTr	X	PtSt	sMM	EURAS-SIB	E1	
559.	<i>Chamecytisus austriacus</i> (L.) Link.	Ch	Fr	SchE	OgMsTr	MsX	SMnPsSt	sMM	EUR	E1	E5.2
560.	<i>Chamecytisus bostrychnicus</i> (Grun.) Klaskova	nPh	Fr	He	OgTr	MsX	Ps	sM	PONT	E1	
561.	<i>Chamecytisus ruthenicus</i> (Fisch.ex Woloszcz.) Klaskova	nPh	Fr	SchE	OgMsTr	MsX	SilPsPsSt	TsM	EURAS	E1	G3
562.	<i>Genista sibirica</i> L.	Ch	Fr	He	OgTr	MsX	Ps	sM	PONT	G1	
563.	<i>Genista tinctoria</i> L.	nPh	Fr	SchE	MsOgTr	XMs	PrPsSMn	TsM	EUR-WSIB	E5.2	E2
564.	<i>Glycyrriza echinata</i> L.	G	Per	He	AlkMgTr	XMs	RuHalPr	sMM	EURAS-WSIB	E6	
565.	<i>Glycyrriza glabra</i> L.	G	Per	He	AlkMsTr	XMs	PsStHal	sMM	EURAS-SIB	E6	
566.	<i>Halimodendron halodendron</i> (L.) Voss	nPh	Fr	He	AlkMsTr	XMs	CuHalPs	sMM	EURAS	E6	Adv

№	Species within genus	Climamorphs						Biotopes			Adventive status
		Tropophytes	Heliomorphs	Biomorphs	Climamorphs	Zonality	Regionallities	EUR	I	Adv	
567.	<i>Laburnum anagyroides</i> Medik.	Ph	Arb-Fr	ScHe	MsTr	XMs	SilCu	sMM	EUR	I	Adv
568.	<i>Lathyrus pratensis</i> L.	GHKr	Per	He	MgTr	Ms	SMnPr	B-M	EURAS-SIB	E2 E5,2	
569.	<i>Lathyrus tuberosus</i> L.	G	Per	He	MsMgTr	MsX	RuPrSt	sMM	EURAS	E1	Adv
570.	<i>Lotus ucrainicus</i> Klokov	HKr	Per	He	MgMsTr	XMs	StPr	sMM	EURAS	E2 E1	
571.	<i>Medicago lupulina</i> L.	THKr	Ann Bien	He	MsMgTr	Ms	RuSMn-Pr	TsMM	EURAS	E2 J	
572.	<i>Medicago romanica</i> Prod.	HKr	Per	He	MsTr	MsX	PrPtSt	sMM	EURAS	E1 E2	
573.	<i>Medicago sativa</i> L.	HKr	Per	He	MgTr	MsX	CuIRuPr	TsMM	EURAS	E2 I	Adv
574.	<i>Melilotus albus</i> Medik.	HKr	Bien	He	MsTr	MsX	RuPrSt	TsMM	EUR-WAS	E1 J E2	
575.	<i>Melilotus officinalis</i> (L.) Pall.	HKr	Bien	He	MsTr	XMs	RuStPr	B-M	EUR-WAS	E1 J	
576.	<i>Onobrychis tanaitica</i> Spreng.	HKr	Per	ScHe	MsTr	MsX	PrStSMn	sMM	EURAS	E1 E5,2	
577.	<i>Onobrychis vicifolia</i> Scop.	HKr	Per	He	MsTr	XMs	CuIRuPr	sMM	EURAS	E2 I	Adv

№	Species within genus	Biotope						Adventive status	
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Cenomorphs	Zonality	Regionality	
578.	<i>Ononis arvensis</i> L.	HKr	Per	He	AlkMgTr	Ms	HalPr	TsM	EUR-WAS E6
579.	<i>Ornithopus perpusillus</i> L.	T	Ann	He	OgTr	Ms	RuPs	sMM	EURAS-WSIB E1
580.	<i>Oxytropis pilosa</i> (L.) DC.	HKr	Per	He	MsTr	X	PrSt	TM	EURAS E1
581.	<i>Robinia hispida</i> L.	Ph	Arb	ScHe	MsTr	XMs	SMnCu	sM	EUR I
582.	<i>Robinia pseudacacia</i> L.	Ph	Arb	He	Og-MgTr	X-Ms	CuSil	TsMM	EUR+EAM G1.C3 I
583.	<i>Robinia viscosa</i> Vent.	Ph	Arb	ScHe	MsTr	MsX	SilCu	TsMM	EUR+EAM I.G1 Adv
584.	<i>Securigera varia</i> L.	HKr	Per	He	MsTr	XMs	StSMn-Pr	TsMM	EUR E2 E5.2 E1
585.	<i>Trifolium ambiguum</i> Bieb.	HKr	Per	He	MgTr	Ms	RuHal-Pr	sMM	EURAS E2 G2. E6
586.	<i>Trifolium arvense</i> L.	T	Ann	He	MsTr	XMs	RuSil-PrSt	B-M	EUR-WSIB E1 E2 G3 J
587.	<i>Trifolium borysthenicum</i> Grun.	HKr	Per	He	MgTr	Ms	HalPr	sM	PONT E2 E6

№	Species within genus	Biomes						Biotopes			Adventive status
		Climamorphs	Biomorphs	Heilomorphs	Tropohomophs	Hermomorphs	Zonality	Regionalties			
588.	<i>Trifolium campestre</i> Schreb. (<i>T. procumbens</i> L.)	T	Ann	SchE	MsTr	XMs	SilPr	BtSm	EUR	E2 G1	
589.	<i>Trifolium fragiferum</i> L.	HKr	Per	He	AlkTr	HgMs	HalPr	TsMM	EUR-WAS	E2 E6	
590.	<i>Trifolium hybridum</i> L.	HKr	Bien	He	OgMsTr	HgMs	SMnPr	TsM	EUR	E2 E5.2	Adv
591.	<i>Trifolium medium</i> L.	G	Per	SchE	MgTr	XMs	SilPr	BtSm	EUR-WSIB	E2 G1	
592.	<i>Trifolium montanum</i> L.	HKr	Per	HeSc	MgTr	XMs	SilPr	TsM	EUR-WSIB	E2 G1	
593.	<i>Trifolium pratense</i> L.	HKr	Per	He	MgTr	HgMs	RuSilPr	B-M	EUR-WAS	E2 G1	
594.	<i>Trifolium repens</i> L.	HKr	Per	He	MgTr	HgMs	RuPr	PL	CIRCPOL	E2	
595.	<i>Trifolium sativum</i> (Schreb.) Crome	HKr	Bien	He	MsTr	Ms	PrCul	B-M	EURAS	E2	
596.	<i>Vicia angustifolia</i> Reichard	T	Ann	He	MsMgTr	XMs	RuPr	B-M	EUR-WAS	E2	Adv
597.	<i>Vicia cracca</i> L.	HKr	Per	He	MsTr	HgMs	RuStPr	B-M	EURAS	E2 E1	
598.	<i>Vicia hirsuta</i> (L.) S.F.Grag	T	Ann	SchE	MsTr	MsX	RuSiSt	B-M	EUR-WAS	E1 G1	Adv

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Trophomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalities	Biotopes	Adventive status
599.	<i>Vicia pisiformis</i> L.	HKr	Per	He	MsTr	Ms	Sil	B-M	EUR	G1	
600.	<i>Vicia sativa</i> L.	HKr	Ann	He	MsTr	MsX	StRuCu	B-M	EUR-WAS	I E1	Adv
601.	<i>Vicia tenuifolia</i> Roth.	HKr	Per	He	MgTr	MsX	SMnSt-Pr	TsMM	EURAS	E2 E5.2	
602.	<i>Vicia tetrasperma</i> (L.) Schreb.	T	Ann	ScHe	MgTr	XMs	RuPr	TsMM	EUR-WAS	E2	Adv
603.	<i>Vicia villosa</i> Roth.	HKr	Ann	ScHe	MgTr	XMs	RuSMn-Pr	TsMM	EUR-WAS	E2 I	Adv
	Fagaceae										
604.	<i>Quercus robur</i> L.	Ph	Arb	ScHe	MsOg-Al-kMgTr	MsX-MsHg	Sil	TsM	EUR	G1	
	Fumariaceae										
605.	<i>Corydalis solida</i> (L.) Clairv.	G	Per	ScHe	MgTr	Ms	Sil	B-M	EUR	G1.A132	
606.	<i>Fumaria officinalis</i> L.	T	Ann	He	MsTr	MsX	Ru	B-M	EUR	I J	Adv

№	Species within genus	Zonality						Regionality			Biotopes			Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	MsX	Ru	sMM	EUR-WAS	I J	Adv	
607.	<i>Fumaria schleicheri</i> Soy.-Willem.	T	Ann	ScHe	MsTr									
	Gentianaceae													
608.	<i>Centaurium erythraea</i> HKr. Rafn.	T	Ann	ScHe	OgMsTr	XMs	StPr	B-M	EUR-WAS	E2 E1				
609.	<i>Gentiana pneumonanthe</i> L.	HKr	Per	ScHe	MsTr	Mshg	SipPalPr	B-M	EURAS	E3.43				
	Geraniaceae													
610.	<i>Erodium cicutarium</i> (L.) L Her.	T	Ann	ScHe	OgMsTr	XMs	RuSilPt-St	PL	CIRCPOL	E1 G1 J				
611.	<i>Geranium collinum</i> Steph.	HKr	Per	ScHe	AlkTr	HgMs	PalHalPr	TsM	EURAS	E3.44				
612.	<i>Geranium divaricatum</i> Ehrh.*	T	Ann	ScHe	OgMsTr	XMs	RuSil	TsMM	EUR-WAS	G4				
613.	<i>Geranium pusillum</i> L.	T	Ann	He	MsTr	MsX	Ru	TsMM	EUR-WAS	J	Adv			
614.	<i>Geranium robertianum</i> L.	T	Ann	ScHe	OgMsTr	XMs	PtSil	B-M	CIRCPOL	G1 G3				
	Grossulariaceae													
615.	<i>Ribes aureum</i> Pursh	nPh	Fr	ScHe	MsTr	Ms	SilCul-Ru	BTsM	EURAS+ NAM	I	Adv			

№	Species within genus	Zonality						Biotopes			Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygronomorphs	Cenomorphs	Regionalities	EUR	EUR	
623.	<i>Acinos arvensis</i> (Lam.) Dandy	T	Ann	ScHe	MsTr	MsX	RuPtSt	BtSm			
			HKr	Bien							
624.	<i>Ajuga chia</i> Schreb.	HKr	Per	ScHe	MsTr	X	RuPtSt	sMM	EURAS	E1 J	
625.	<i>Ajuga genevensis</i> L.	G	Per	ScHe	MsTr	XMs	RuPrSil	TsMM	EUR	E2 G1	
626.	<i>Ajuga reptans</i> L.	HKr	Per	ScHe	MsTr	Ms	SilCul	B-M	EUR	I	
627.	<i>Ballota nigra</i> L.	HKr	Per	ScHe	MsTr	Ms	Ru	TsMM	EUR-WAS	J	Adv
628.	<i>Dracocephalum thymiflorum</i> L.	T	Ann	ScHe	OgMsTr	MsX	StSilRu	B-M	EURAS	J E1	Adv
			HKr	Bien							
629.	<i>Galeopsis ladanum</i> L.	T	Ann	He	MsTr	XMs	Ru	BtSm	EUR-WAS	J	Adv
630.	<i>Galeopsis speciosa</i> Mill.	T	Ann	ScHe	MsTr	XMs	RuSMn	BtSm	EUR-WAS	E5.2 J	
631.	<i>Galeopsis tetrahit</i> L.	T	Ann	ScHe	Og-MsTr	Ms	RuPSSil	B-M	EUR		
632.	<i>Glechoma hederacea</i> L.	HKr	Per	HeSc	MsTr	Ms	RuPrSil	B-M	EURAS	G1 E2 J	

Nº	Species within genus	Biotopes										Adventive status
		Regionalities					Zonality					
		Cenomorphs					Hypromorphs					
		Biomorphs	Heiomorphs	Tropohomorphs	Hypromorphs	Cenomorphs	Zonality					
633.	<i>Glechoma hirsuta</i> Waldst. et Kit.	HKr	Per	HeSc	MsTr	Ms	Sil	TsM	EUR	G1		
634.	<i>Lamium album</i> L.	G	Per	ScHe	MgMgTr	Ms	PrSil	B-M	EURAS	G1 E2	Adv	
635.	<i>Lamium amplexicaule</i> L.	T	Ann	He	OgMgTr	XMs	Ru	B-M	EUR-WAS	J	Adv	
		HKr										
636.	<i>Lamium purpureum</i> L.	T	Ann-Bien	ScHe	MsTr	XMs	Ru	B-M	EUR	J	Adv	
		HKr										
637.	<i>Leonurus cardiaca</i> L.	HKr	Per	ScHe	MgTr	XMs	SMn-Ru	B-M	EURAS+-NAM	J E5.2	Adv	
638.	<i>Leonurus glaucescens</i> Bunge	HKr	Per	He	MsTr	X	StPtRu	sMM	EURAS	JE1		
639.	<i>Leonurus villosus</i> Desf. ex D'Urv.	HKr	Per	ScHe	MsTr	MsX	StRu	B-M	EURAS	E1 J		
640.	<i>Lycopus europaeus</i> L.	HKr	Per	ScHe	MgTr	Mshg	PrPal	TsMM	EUR-WAS	D2.3 E3		
641.	<i>Lycopus exaltatus</i> L.-fl.	HKr	Per	ScHe	MgTr	Mshg	PrPal	TsMM	EUR-WAS	D2.3 E3		

№	Species within genus	Biotopes										Adventive status	
		Climamorphs			Biomorphs			Zonality			Regionalities		
642.	<i>Marrubium peregrinum</i> L.	HKr	Per	He	AlkTr	X	RuStHal	sMM	EUR	E6			
643.	<i>Marrubium praecox</i> Jancea	HKr	Per	He	MsTr	MsX	RuStPt	sMM	EURAS	E1			
644.	<i>Melissa officinalis</i> L.	G	Per	ScHe	MsTr	Ms	Cul	sMM	EURAS	I	Adv		
645.	<i>Mentha aquatica</i> L.	HKr	Per	ScHe	MsTr	Hg	PaAq	PL	CIRCPOL	C3.24 C1.33 D2.3			
646.	<i>Mentha piperita</i> L.	G	Per	ScHe	MgTr	Ms	RuCuI	TsMM	EURAS	I	Adv		
647.	<i>Mentha verticillata</i> L.	HKr	Per	He	Og-MsTr	MShg	PaIPr	TsM	EUR	E3			
648.	<i>Nepeta cataria</i> L.	HKr	Per	ScHe	MsTr	XMs	RuStSil	TsMM	EUR-WAS	G1 E1	Adv		
649.	<i>Nepeta pannonica</i> L.	HKr	Per	ScHe	MsTr	MsX	SiMnSt	sMM	EURAS-WSIB	E1 E5.2			
650.	<i>Nepeta parviflora</i> M.Bieb.	HKr	Per	ScHe	MgTr	X	St	sMM	EUR	E1			
651.	<i>Oniganum vulgare</i> L.	HKr	Per	ScHe	MgTr	MsX	StSMn-Pr	B-M	EURAS-SIB	E5.2 E2			

№	Species within genus	Biota types						Adventive status		
		Zonality			Regionalities					
652.	<i>Phlomis pungens</i> Willd.	HKr	Per	He	MsTr	X	PtSt	sMM	EURAS	E1
653.	<i>Phlomis tuberosa</i> L.	HKr	Per	He	MsTr	MsX	PrSMnSt	TsMM	EURAS	E1 E2 E5.2
654.	<i>Prunella grandiflora</i> (L.) Scholl.	HKr	Per	ScHe	MsTr	XMs	PtStSMn	TsMM	EURAS	E5.2 E1
655.	<i>Prunella vulgaris</i> L.	HKr	Per	He	MgTr	Ms	RuPrSil	B-M	CIRCPOL	G1 E2 J
656.	<i>Salvia aethiopis</i> L.	HKr	Bien	He	MsTr	X	RuPtSt	TsMM	EURAS	E1
657.	<i>Salvia austriaca</i> Jacq.	HKr	Per	He	MgTr	MsX	PrSMnSt	sM	EUR-PONT	E1 E2
658.	<i>Salvia nemorosa</i> L.	HKr	Per	He	MsTr	MsX	RuSMn- PrSt	sMM	EURAS	E1 E2 J
659.	<i>Salvia nutans</i> L.	HKr	Per	He	MsTr	MsX	CrPtSt	sM	PONT	E1
660.	<i>Salvia verticillata</i> L.	HKr	Per	ScHe	MsTr	MsX	PrStRu	TsMM	EUR-WAS	E1 E2 J
661.	<i>Scutellaria galericulata</i> L.	G	Per	ScHe	MgTr	Hg	PrPal	B-M	CIRCPOL	E3 D2.3
662.	<i>Scutellaria hastifolia</i> L.	HKr	Per	ScHe	MgTr	HgMs	PaIPr	BTsM	EUR-WSB	E2

№	Species within genus	Biogeographical status									
		Biomes					Biotopes				
Climamorphs		Heliomorphs		Hygronomorphs		Cenomorphs		Zonality		Regionalities	
663.	<i>Sideritis montana</i> L.	T	Ann	He	MsTr	MsX	RuPtSt	sMM	EURAS	E1	
664.	<i>Stachys annua</i> L.	T	Ann	He	MsTr	MsX	Ru	B-M	EURAS	J	Adv
665.	<i>Stachys palustris</i> L.	G	Per	ScHe	MgTr	Hg	PrPal	BTsM	CIRCPOL	D2,3 Cl.3,3	
666.	<i>Stachys recta</i> L.	HKr	Per	He	OgTr	MsX	SMnSt	TsM	EUR	E1 E5,2	
667.	<i>Teucrium polium</i> L.	Ch	Per	He	CaMsTr	X	CrPtSt	TsMM	EURAS	E1	
668.	<i>Teucrium scordium</i> L.	HKr	Per	SchE	MgTr	HgMs	PalPr	TsMM	EUR	E3	
669.	<i>Thymus marchalianus</i> Willd.	Ch	Per	He	MgTr	MsX	SMnSt	TsMM	EURAS	E1	
670.	<i>Thymus pallasianus</i> Heinr.Braun	Ch	Per	ScHe	OgTr	MsX	SMnPs	sM	PONT	E5,2	
Lentibulariaceae											
671.	<i>Utricularia vulgaris</i> L.	HKr	Per	ScHe	MgTr	Hy er	Aq	PL	CIRCPOL	C1,32 D2,3	

№	Species within genus	Adventive status																			
		Climamorphs			Biomorphs			Regionallities			Biotopes										
Zonality																					
Limoniaceae																					
672.	Goniolimon bessarianum (Schult.) Kusn.	HKr	Per	He	OgMsTr	X	PsPtSt	sM	EUR	E1											
673.	Limonium tomentellum (Boiss.) O.Kuntze subsp. hispanicum (Klokov)	HKr	Per	He	AlkTr	MsX	PrHal	sM	EEUR	E6											
Linaceae																					
674.	Linum austriacum L.	HKr	Per	He	MsTr	MsX	PrPtSt	sMM	EURAS	E2 G1											
675.	Linum hirsutum L.	HKr	Per	He	MsTr	X	SMnPtSt	sMM	EURAS	E1 E5.2											
676.	Linum usitatissimum L. (L. chrehpitans Boenn.)	T	Ann	He	MsTr	Ms	Cul	TsMM	EURAS	I											
Loranthaceae																					
677.	Viscum album L.	nPh	Fr	ScHe	Par	HgMs	Sil	sMM	EURAS	G1											
Lythraceae																					
678.	Lythrum salicaria L.	HKr	Per	He	MgTr	MsHg	PrAqPal	B-M	EURAS	D2.3											
679.	Lythrum virgatum L.	HKr	Per	He	MgTr	MsHg	AqPalPr	TsM	EUR-SIB	E3.43											
										D2.3	E3.43										

№	Species within genus	Biomes						Adventive status		
		Climamorphs	Biomorphs	Heilomorphs	Trophomorphs	Hypromorphs	Zonality	Regionalities	Biotopes	
680.	<i>Peplis alternifolia</i> Bieb.	T	Ann	He	MgTr	MsHg	PrPal	sMM	EURAS	E3
681.	<i>Peplis portula</i> L.	HKr	Ann	ScHe	MsTr	MsHg	PspalPr	B-M	CIRCPOL	E3
	Malvaceae									
682.	<i>Abutilon theophrasti</i> Medik.	T	Ann	He	MsTr	Ms	Ru	PL	CIRCPOL	J
683.	<i>Alcea pallida</i> Waldst. et Kit.*	T HKr	Ann Per	He	MsTr	XMs	RuSMnPt	sMM	EUR	E5.2 I
684.	<i>Alcea rugosa</i> Alef.	HKr	Per	He	CaMsTr	XMs	RuSt	sM	EEUR	J
685.	<i>Althaea armeniaca</i> Ten.	HKr	Per	He	AlkMsTr	Ms	HalPr	sM	EUR	E6
686.	<i>Althaea officinalis</i> L.	HKr	Per	He	AlkMgTr	Ms	HalPalPr	TsMM	EUR-WAS	E6
687.	<i>Lavatera thuringiaca</i> L.	HKr	Per	ScHe	MgTr	MsX	RuStPr	TsMM	EUR-WAS	E2 E1 J
688.	<i>Malva mauritiana</i> L.	T	Bien	ScHe	MsTr	Ms	CuRu	PL	CIRCPOL	I
689.	<i>Malva neglecta</i> Wallr.	HKr	Per	ScHe	MsTr	XMs	Ru	TsMM	EUR-WAS	J
690.	<i>Malva pusilla</i> Smith	T	Ann	ScHe	MsTr	XMs	Ru	TsMM	EUR-WAS	J

№	Species within genus	Zonality						Regionalities			Biotopes		Adventive status
		Cenomorphs			Hygronomorphs			EUR-EAS			I		
			MsTr	Ms	CuSil-Ru	TsM							
Moraceae													
691.	<i>Morus alba</i> L.	Ph	Arb	He	MsTr	Ms	CuSil-Ru	TsM					Adv
Nyctaginaceae													
692.	<i>Oxybaphus nictagineus</i> (Michx.) Sweet	HKr	Per	ScHe	MsTr	MsX	Ru	TsMM					Adv
Nymphaeaceae													
693.	<i>Nuphar lutea</i> (L.) Smith	HKr	Per	He	MsTr	Pl r	Aq	B-M	EUR-WSIB	C1.2 C2.33			
694.	<i>Nymphaea alba</i> L.	HKr	Per	ScHe	MsTr	Pl r	Aq	B-M	EUR	C1.2411			
Oleaceae													
695.	<i>Fraxinus americana</i> L.	Ph	Arb	ScHe	MgMsTr	MsX-MsHg	CuSil	B-M	NAM	I J			Adv
696.	<i>Fraxinus excelsior</i> L.	Ph	Arb	ScHe	MsMgTr	MsX-MsHg	Sil	TsM	EUR	G I I			
697.	<i>Fraxinus lanceolaria</i> Borkh.	Ph	Arb	ScHe	MsTr	MsX-HgMs	CuRu-Sil	BTsM	NAM	I J			Adv

№	Species within genus	Biogeographical Zonation										Adventive status
		Climamorphs			Biomorphs			Tropohomorphs			Hyalomorphs	
698.	<i>Fraxinus pennsylvanica</i> Marshall	Ph	Arb	SchHe	MsMg-Tr	XMs-HgMs	CuRu-Sil	BTsM	NAM	I	J	Adv
699.	<i>Ligustrum vulgare</i> L.	Ph	Fr	SchHe	MsTr	MsX-Ms	CuPt-Sil	sMM	EURAS	I		
700.	<i>Syringa vulgaris</i> L.	nPh	Fr	SchHe	MsTr	MsX	Cu	sMM	EURAS	I	I	Adv
Onagraceae												
701.	<i>Epilobium hirsutum</i> L.	HKr	Per	He	MgTr	MsHg	PrPal	PL	CIRCPOL	E3	D2.3	
702.	<i>Epilobium montanum</i> L.	HKr	Per	HeSc	OgMsTr	Ms	Sil	B-M	EUR-WAS	G1		
703.	<i>Epilobium parviflorum</i> Schreb.	HKr	Per	He	MsTr	Hg	PrPal	TsMM	EUR-WAS	D2.3		
704.	<i>Epilobium roseum</i> Schreb.	HKr	Per	SchHe	MgTr	HgMs	PalPr	TsMM	EUR	E3		
705.	<i>Oenothera biennis</i> L.	HKr	Bien	SchHe	OgMsTr	XMs	PsRu	B-M	CIRCPOL	G3	Adv	
706.	<i>Oenothera renneri</i> H. Scholz.	HKr	Bien	He	OgTr	XMs	RuPs	TsMM	NAM+ EURAS	G3	Adv	

№	Species within genus	Regionalities										Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropiomorphs	Hegromorphs	Zonality						
Orobanchaceae													
707.	<i>Orobanche alba</i> Stepn̄ ex Willd.	G	Per	ScHe	Par	MsX	StPt	TsMM	EURAS	E1			
708.	<i>Orobanche coerulescens</i> Stephan	G	Per	He	Par	MsX	PtStPs	sMM	EURAS-SIB	E1			
709.	<i>Orobanche cumana</i> Wallr.	TG	Per	He	Par	XMs	Ru	sMM	EURAS-WSIB	E1	Adv		
710.	<i>Phelipanche arenaria</i> (Borkh.) Walp.	G	Ann Per	He	Par	MsX	RuPs	TsMM	EUR	E1	Adv		
711.	<i>Phelipanche purpurea</i> (Jacq.) Soják	G	Per	He	Par	X	RuSt	B-M	EURAS	E1			
Oxalidaceae													
712.	<i>Xanthoxalis corniculata</i> (L.) HKr	T Small	Ann Bien	ScHe	MsTr	MsX	Ru	TsMM	EURAS	J			
713.	<i>Xanthoxalis stricta</i> L. (L.) HKr	T Small	Ann Bien	HeSc	OgMsTr	Ms	SilPs-Ru	B-M	EUR-WAS	J	Adv	G1	

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Hygromorphs	Tropohomorphs	Cenomorphs	Zonality	Regionallities	Biotopes	Adventive status
Papaveraceae											
714.	<i>Chelidonium majus</i> L.	HKr	Per	HeSc	MsMgTr	Ms	RuSil	B-M	EURAS	G1.225 J	
715.	<i>Glaucium corniculatum</i> (L.) J. Rudolph	T Bien	Ann Bien	ScHe	OgMsTr	MsX	RuSt	sMM	EUR-WAS	E1	
716.	<i>Papaver dubium</i> L.	T HKr	Ann Per	He He	CaMsTr	MsX	RuPtSt PtStRu	TsMM TsMM	EUR EUR	E1 I I E1	Adv Adv
717.	<i>Papaver rhoes</i> L.				MsTr	MsX					
Plantaginaceae											
718.	<i>Plantago arenaria</i> Waldst. et Kit.	T	Ann	He	OgTr	MsX	RuPs	TsMM	EUR-WAS	E1	
719.	<i>Plantago cornuti</i> Goussn.	HKr	Per	He	AlkTr	Ms	HalPr	sMM	EURAS	E6	
720.	<i>Plantago lanceolata</i> L.	HKr	Per	He	MsTr	XMs	PrSsMn-Ru	B-M	EUR-WAS	E2 E1 J	
721.	<i>Plantago major</i> L.	HKr	Bien- Per	He	MgTr	Ms	RuPr	B-M	CIRCPOL	E2 J	
722.	<i>Plantago maxima</i> Juss. ex Jacq.	HKr	Per	He	AlkTr	Ms	HalPr	sMM	EURAS	E6	

№	Species within genus	Climamorphs		Biomes		Zonality		Regions		Biotopes		Adventive status
		Tropohomorphs	Hygrohomorphs	Heliomorphs	Biomorphs	Cenomorphs	Regiofamilies					
723.	<i>Plantago media</i> L.	HKr	Per	He	MgTr	MsX	RuSil-PrSt	B-M	EURAS-SIB	E1 E2 E5.2 J		
724.	<i>Plantago urvillei</i> Opiz	HKr	Per	He	MsTr	X	St	sMM	EURAS	E1		
	Polygalaceae											
725.	<i>Polygala podolica</i> D.C.	HKr	Per	ScHe	MsTr	MsX	SMnPrSt	sM	EUR	E1 E2 E5.2		
	Polygonaceae											
726.	<i>Fallopia convolvulus</i> (L.) A.Love	T	Ann	ScHe	MsTr	XMs	Ru	B-M	EURAS	I J	Adv	
727.	<i>Persicaria amphibia</i> (L.) Delarbre	HKr	Per	ScHe	MsTr	PrHg	AqPal	B-M	CIRCPOL	C1.3 D2.3 E3		
728.	<i>Persicaria hydropiper</i> L.	T	Ann	ScHe	MsTr	HgMs	RuPalPr	B-M	EURAS	E3 D2.3		
729.	<i>Persicaria lapathifolia</i> (L.) Delarbre	T	Ann	He	OgTr	HgMs	PalPsPr	PL	CIRCPOL	E2		
730.	<i>Persicaria maculosa</i> S.F.Gray	T	Ann	He	MsTr	Ms	RuPr	B-M	EURAS	E2		

№	Species within genus	Biotopes						Adventive status		
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Zonality	Regionallities		
731.	<i>Persicaria scabra</i> (Moench) Moldenke	T	Ann	He	MgTr	XMs	RuPr	PL	EURAS-AM	E2
732.	<i>Polygonum arenarium</i> Waldst. et Kit.	T	Ann	He	OgTr	Ms	SiPs	sM	EUR	G3
733.	<i>Polygonum aviculare</i> L.	T	Ann	ScHe	MsTr	MsX	Ru	PL	CIRCPOL	J I
734.	<i>Reynoutria sachalinensis</i> (F.Schmidt ex Maxim.) Nakai	HKr	Per	He	MsTr	Ms	CuRu	T	EAS	J I
735.	<i>Rumex acetosa</i> L.	G	Per	He	MgTr	XMs	SMnPr	sMM	AM	E2 E5.2
736.	<i>Rumex acetosella</i> L.	HKr	Per	ScHe	OgMsTr	Ms	RuPr	PL	EURAS	E5.2 E2
737.	<i>Rumex confertus</i> Willd.	HKr	Per	ScHe	MsTr	XMs	RuSmn-Pr	TsMM	EURAS	E2 E5.2
738.	<i>Rumex crispus</i> L.	HKr	Per	He	MsTr	Ms	RuPr	B-M	EUR-WAS	E2
739.	<i>Rumex hydrolapatum</i> Huds.	HKr	Per	He	MsTr	Hg	AqPal	TsM	EUR	D2.3
740.	<i>Rumex longifolius</i> DC.	HKr	Per	He	MsTr	Ms	RuSmn-Pr	AsM	NEUR ⁺ -NAM	C3.24 Adv

№	Species within genus	Cenomorphs						Zonality			Regionalities			Biotopes	Adventive status
		Ciliamorphs	Heilomorphs	Tropohomorphs	Hygromorphs	Chionomorphs	Zonal	EURAS	TsMM	EUR	B-M	EUR	J		
741.	Rumex maritimus L.	HKr	Per	He	AlkTr	HgMs	HalPr	TsMM	EURAS	E6					
742.	Rumex patientia L. subsp. orientalis Danser	HKr	Per	He	MsTr	MsX	HalStRu	M	EUR	E6	J				Adv
743.	Rumex patientia L.	HKr	Per	ScHe	MgTr	XMs	CuRu	M	EUR	I	J				Adv
744.	Rumex thysiflorus Fenzl.	HKr	Per	ScHe	MgTr	HgMs	SMnHalPr	BTsM	EURAS	E6					
745.	Rumex ucrainicus Fisch.ex Spreng.	HKr	Per	He	AlkTr	Ms	PrHal	TsMM	EURAS	E6					
	Portulacaceae														
746.	Portulaca oleracea L.	T	Ann	ScHe	MsTr	XMs	Ru	PL	CIRCPOL	J	Adv				
	Primulaceae														
747.	Anagallis arvensis L.	T	Ann	He	MsTr	MsX	Ru	B-M	EUR	J					
		HKr	Bien												
748.	Glaux maritima L.	HKr	Per	ScHe	AlkTr	HgMs	PrHal	B-M	CIRCPOL	E6					
749.	Lysimachia nummularia L.	HKr	Per	ScHe	MgTr	HgMs	SilPr	TsM	EUR	E2					

№	Species within genus	Biota species						Adventive status		
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Zonality	Regionality		
750.	<i>Lysimachia vulgaris</i> L.	HKr	Per	ScHe	MgTr	MsHg	Pal	B-M	EURAS	D2.3
751.	<i>Naumburgia thrysiflora</i> (L.) Richb.	HKr	Per	ScHe	MsTr	Hg	Pal	BT	CIRCPOL	D2.3
752.	<i>Primula veris</i> L.	HKr	Per	ScHe	MsTr	Ms	PrSil	TsMM	EUR	G1 E2
Ranunculaceae										
753.	<i>Anemone ranunculoides</i> (L.) Holub	G	Per	HeSc	MgTr	Ms	Sil	TsM	EUR	G1
754.	<i>Batrachium circinatum</i> (Sibth.) Spach	HKr	Per	HeSc	AlkTr	Hy r	Aq	BTsM	EURAS	C2.33
755.	<i>Batrachium trichophyllum</i> (Chaix) Bosch	HKr	Per	ScHe	MsTr	Hy r	Aq	PL	CIRCPOL	C1.3411
756.	<i>Caltha palustris</i> L.	HKr	Per	He	MsTr	Hg	PrPal	PL	CIRCPOL	D2.3 E3
757.	<i>Ceratocephala testiculata</i> (Crantz) Besser	T	Ann	He	MsTr	MsX	RuSt	sMM	EUR-WAS	E1
758.	<i>Clematis integrifolia</i> L.	HKr	Per	He	MgMsTr	MsX	STSMin	TsM	EURAs	E5.2 E1
759.	<i>Clematis orientalis</i> L.	nPh	Fr	He	OgTr	PsX	PsCu	sM	SAS	I

№	Species within genus	Biotopes										Adventive status	
		Climamorphs			Heliomorphs			Trophomorphs			Hygromorphs		
Zonality		Regionallities		Cenomorphs		Trophomorphs		Heliomorphs		Biomorphs		Climamorphs	
760.	<i>Clematis vitalba</i> L.	nPh	Fr	He	MsTr	MsX	SilPtr	TsM	EUR	IG1	Adv		
761.	<i>Consolida orientalis</i> L.	T	Ann	He	MgTr	MsX	CuRu	TsM	EURAS	I			
762.	<i>Consolida paniculata</i> (Host) Schur	T	Ann	He	MsTr	MsX	StRu	TsM	EURAS	E1			
763.	<i>Consolida regalis</i> S.F.Gray	T	Ann	ScHe	MsTr	MsX	SMn-Ru	TsM	EUR-WAS	E5.2 I	Adv		
764.	<i>Ficaria verna</i> Huds.	G	Per	HeSc	MgTr	Ms	Sil	TsMM	EUR	G1.A132 I			
765.	<i>Myosurus minimus</i> L.	T	Ann	He	AlkTr	Ms	Ru-HalPr	TsMM	EUR-WAS+	E6			
766.	<i>Nigella arvensis</i> L.	T	Ann	He	MsTr	MsX	RuSt	TsMM	EUR-WAS	E1	Adv		
767.	<i>Pulsatilla pratensis</i> (L.) Mill.	HKr	Per	ScHe	OgMsTr	XMs	StPr	BTsM	EUR	E2 E1			
768.	<i>Ranunculus acris</i> L.	HKr	Per	ScHe	MsTr	HgMs	SMnPr	PL	EUR-WSIB	E2 E5.2			
769.	<i>Ranunculus cassubicus</i> L.	HKr	Per	ScHe	MsMgTr	HgMs	PrSl	BT	EUR	G1			
770.	<i>Ranunculus illicius</i> L.	G	Per	ScHe	MsMgTr	XMs	PrSt	TsM	EUR	E1 E2			

№	Species within genus	Regionalities										Adventive status	
		Zonality					Biotopes						
		Cenomorphs					Regionalities						
		Hgromorphs	Trophomorphs	Heliomorphs	Biomorphs	Climamorphs	Hygromorphs	Trophomorphs	HeSc	Og-MgTr	Ms-Hg	SMnSIl	BTsM
		nPh	Per	ScHe	MgMsTr	XMs	SilSMn	XMn	MsTr	Og-MgTr	Ms-Hg	SMnSIl	EUR-WAS
780.	<i>Frangula alnus</i> Mill.	nPh	Per	ScHe	MgMsTr	XMs	SilSMn	XMn	MsTr	Og-MgTr	Ms-Hg	SMnSIl	G1
781.	<i>Rhamnus cathartica</i> L.	nPh	Per	ScHe	MgMsTr	XMs	SilSMn	XMn	MsTr	Og-MgTr	Ms-Hg	SMnSIl	G1
Rosaceae													
782.	<i>Agrimonia eupatoria</i> L.	HKr	Per	ScHe	MgMsTr	XMs	SMnSt	XMn	MsTr	Og-MgTr	Ms-Hg	SMnSIl	EUR-WAS
783.	<i>Amygdalus nana</i> L.	Ch	Fr	He	MsTr	MsX	SMnSt	XMn	MsX	Og-MgTr	Ms-Hg	SMnSIl	EURAS
784.	<i>Armeniaca vulgaris</i> L. Lam.	Ph	Arb	He	OgMsTr	MsX	RuSiICu	M	MsX	MsTr	Og-MgTr	SMnSIl	E5.2 E1
785.	<i>Cerasus mahaleb</i> (L.) Mill.	Ph	Arb-Fr	ScHe	MsTr	XMs	CuRuSMn	sM	CuRuSMn	MsTr	MsTr	SMnSIl	SEUR
786.	<i>Cerasus tomentosa</i> (Tumb.) Wall.	nPh	Fr	ScHe	OgMsTr	MsX	SMnCu	sM	MsX	OgMsTr	MsTr	SMnSIl	AS
787.	<i>Cerasus vulgaris</i> Mill.	Ph	Arb	ScHe	MgTr	XMn	RuCu	sM	MgTr	ScHe	MsMsTr	SMnSIl	AS
788.	<i>Crataegus fallacina</i> Klokov	nPh	Fr	ScHe	MsMsTr	Ms-X	SiLSMnPt-St	TsMM	Ms-X	MsMsTr	ScHe	SiLSMnPt-St	E5.2 E1

№	Species within genus	Climamorphs						Biomes						Biotopes		Adventive status
		Heliomorphs			Tropohomorphs			Chenomorphs			Zonality			Regionalties		
789.	<i>Filipendula ulmaria</i> (L.) Maxim.	G	Per	HeSc	MgTr	MsHg	SMnPalPr	PL	EUR-SIB	E5.414						
790.	<i>Fragaria viridis</i> Duch.	HKr	Per	SchE	MsTr	XMs	StsMn	TsMM	EUR-WAS	E5.2 I						
791.	<i>Geum urbanum</i> L.	HKr	Per	SchE	OgMsTr	Ms	RuSil	B-M	EUR-WAS	G1 J						
792.	<i>Malus domestica</i> Borkh.	Ph	Arb	HeSc	MsTr	Ms	RuCu	TsM	EUR	I	Adv					
793.	<i>Malus praecox</i> (Pall.) Borkh.	Ph	Arb	HeSc	MgMsTr	X-Ms	SilStsMn	TsM	EUR	I						
794.	<i>Malus sylvestris</i> Mill.	Ph	Arb	HeSc	Og-MgTr	MsX-Ms	SMnSil	TsMM	EUR	E5.2						
795.	<i>Padus serotina</i> (Ehrh.) Ag.	Ph	Arb	HeSc	Og-MgTr	MsX-MsHg	RuCuSil	TsMM	EAM	I	Adv					
796.	<i>Padus virginiana</i>	Ph	Arb	HeSc	MsmMgTr	XMs	CuSil	BTsM	EUR+EAM	I	Adv					
797.	<i>Potentilla anserina</i> L.	HKr	Per	He	AlkMgTr	MsHg	Pr	PL	CIRCPOL	E3.43						
798.	<i>Potentilla argentea</i> L.	HKr	Per	He	MsTr	MsX	SilPrSRu	BTsM	EUR-WAS	E1 E2 J						

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalities	Biotopes	Adventive status
799.	Potentilla incana P. Gaertn., B. Mey. & Scherb.	HKr	Per	ScHe	OgMsTr	XMs	PtStPs	TsM	EUR	E1	
800.	Potentilla neglecta Baumg.	HKr	Per	He	MsTr	MsX	RuSt	sMM	EUR-SIB	E1	
801.	Potentilla obscura Willd.	HKr	Per	He	MgTr	XMs	SipT	B-M	EURAS+ NAFR	G1	
802.	Potentilla palustris (L.) Scop.	HKr	Per	ScHe	MsTr	HgHel	PalAq	PL	CIRCPOL	D2.3	
803.	Potentilla reptans L.	HKr	Per	He	MsTr	HgMs	SMnPr	TsMM	EUR-WAS	E2 E5.2	
804.	Potentilla supina L.	THKr	Ann-Bien	He	MsMgTr	Ms	PrRu	PL	CIRCPOL	E2	
805.	Potentilla thysiflora Huels ex Zimmerer	HKr	Per	ScHe	OgTr	MsX	RuSt	sM	EUR	E5.2 E1	
806.	Poterium polygamum Waldst. et Kit.	HKr	Per	He	MsTr	MsX	PtSt	sMM	EURAS	E2	
807.	Prunus divaricata Ledeb.	Ph	FrA-rb	He	MsTr	MsX	SMnCu	sMM	EURAS	I E5.2	Adv
808.	Prunus domestica L.	Ph	Fr	ScHe	MsTr	MsX	SMnCu	M	WAS	I	Adv

№	Species within genus	Biotopes										Adventive status	
		Climamorphs			Heliomorphs			Tropohomorphs			Hygrohomorphs		
809.	<i>Prunus insititia</i> L.	Ph	Fr	ScHe	MsTr	MsX	RuCu	sMM	EURAS	I	Adv		
810.	<i>Prunus stepposa</i> Kotov	Ph	Fr	ScHe	MsTr	MsX	SMnSt	TsMM	EUR	E1	E5.2		
811.	<i>Pyrus communis</i> L.	Ph	Afb	ScHe	MgMsTr	MsX	StPStMn	TsMM	EUR	E5.2	E2		
812.	<i>Rosa bisserrata</i> Merat	nPh	Fr	ScHe	MsTr	MsX	SMnPrSt	sM	EUR	E1	E2		
813.	<i>Rosa borysthenica</i> Chrshan.	nPh	Fr	He	MsTr	X	St	sM	EUR	E1	E1		
814.	<i>Rosa canina</i> L.	nPh	Fr	ScHe	MsTr	X-Ms	RuSMnSt	TsMM	EUR-WAS	E1	E5.2		
815.	<i>Rosa caryophyllacea</i> Besser	nPh	Fr	He	MsTr	XMs	SMnStRu	sM	EUR	E1	E5.2		
816.	<i>Rosa corymbifera</i> Borkh.	nPh	Fr	ScHe	MsTr	MsX	RuSMnSt	sMM	EURAS	E1	E5.2		
817.	<i>Rosa rubiginosa</i> L.	nPh	Fr	ScHe	MsTr	MsX	StSMn	sM	EUR	E1			
818.	<i>Rosa spinosissima</i> L.	nPh	Fr	ScHe	MsTr	MsX	SMnStPt	TsMM	EURAS	E1			
819.	<i>Rosa uncinella</i> Bess.	nPh	Fr	HeSc	MsTr	XMs	CuPrSil	sM	EURAS	E1			

№	Species within genus	Biotopes						Adventive status
		Climamorphs			Tropohomorphs			
		Biomorphs	Heliomorphs	Heteromorphs	Zonality	Regionalities		
820.	<i>Rosa villosa</i> L.	nPh	Fr	ScHe	MsTr	Ms	SMnPtCr	BTsM
821.	<i>Rubus caesius</i> L.	nPh	Fr	ScHe	Mst	Ms	RuSii	TsMM
822.	<i>Sorbus aucuparia</i> L.	Ph	Arb	ScHe	OgMsTr	XMs	Sil	B-M
823.	<i>Spiraea crenata</i> L.	nPh	Fr	He	MsTr	MsX	PsSMnSt	sMM
Rubiaceae								
824.	<i>Galium aparine</i> L.	T	Ann	ScHe	MgTr	XMs	SiiRu	B-M
825.	<i>Galium elongatum</i> C.Presl.	HKr	Per	HeSc	MgTr	Hg	SiiPal	sMMB-sTr
826.	<i>Galium humifusum</i> M.Bieb.	HKr	Per	He	OgMsTr	MsX	RuHal-CrSt	M
827.	<i>Galium mollugo</i> L.	HKr	Per	ScHe	MsTr	XMs	SiiPr	TsMM
828.	<i>Galium palustre</i> L.	HKr	Per	ScHe	MgTr	MsHg	PalPr	B-M
829.	<i>Galium physocarpum</i> Ledeb.	HKr	Per	HeSc	MgTr	Ms	SiiPr	BTsM
							EUR	E2 G1
							EUR-SIB+EAM	C1.33 C3
							EURAS	E2 G1

№	Species within genus	Biotoxes										Adventive status	
		Climamorphs			Heliomorphs			Tropohomorphs			Regionalities		
830.	<i>Galium ruthenicum</i> Willd.	HKr	Per	ScHe	OgMsTr	MsX	PtSt	TsM	EURAS	E1			
831.	<i>Galium vaillantii</i> DC.	T	Ann	He	MsTr	MsX	StRu	B-M	EURAS+ NAM	J E1	Adv		
832.	<i>Galium verum</i> L.	HKr	Per	ScHe	MsTr	XMs	PsSiSt	B-M	EURAS	E1			
	Rutaceae												
833.	<i>Ptelea trifoliata</i> L.	Ph	Arb	ScHe	MsTr	MsX	SilCu	BTsM	EUR+AM	I	Adv		
	Salicaceae												
834.	<i>Populus alba</i> L.	Ph	Arb	He	OgMsTr	XMs-Hg	Sil	TsMM	EUR-WAS	G1.1112.1			
835.	<i>Populus deltoides</i> Marsh.	Ph	Arb	He	MsTr	XMs	SilCu	TsMM	AM	I	Adv		
836.	<i>Populus canadensis</i> Moench	Ph	Arb	He	MsTr	MsX	SilCu	TsMM	AM	J	Adv		
837.	<i>Populus nigra</i> L.	Ph	Arb	He	OgMsTr	XMs-Hg	Sil	TsMM	EUR-WAS	G1.1112.1			
838.	<i>Populus tremula</i> L.	Ph	Arb	ScHe	OgMsTr	HgMs	Sil	B-M	EURAS	G1 G3			
839.	<i>Salix acutifolia</i> Willd.	Ph	Fr	ScHe	OgTr	HgMs	SMnPs	TsMM	OEUR-WAS	E5.2			

№	Species within genus	Biotopes										Adventive status		
		Climamorphs			Biomorphs			Tropohomorphs			Hygronomorphs			
Zonality		Cenomorphs		Regiornalities		TsMM		EUR-WAS		G1.1112 I				
		Ph	Arb	SchE	Og-Mg-Tr	XMs-Hg	Sil	TsMM	EUR-WAS	G1.1112 I				
840.	<i>Salix alba</i> L.	Ph	Arb	SchE	Og-Mg-Tr	XMs-Hg	Sil	TsMM	EUR-WAS	G1.1112 I				
841.	<i>Salix caprea</i> L.	Ph	Arb	SchE	OgMsTr	Ms	SilSMn	BTsM	EURAS	E5.2				
842.	<i>Salix cinerea</i> L.	Ph	Fr	SchE	MgM-sTr	MsHg	SilPal	B-M	EUR-WsB	D2.3 E3				
843.	<i>Salix fragilis</i> L.	Ph	Arb	He	MsTr	XMs-MsHg	SilPr	TsM	EUR-WAS	G1.1112 I	Adv			
844.	<i>Salix pentandra</i> L.	Ph	Fr	HeSc	MsTr	MsHg	PalSil	BTsM	EURAS	G1 D2.3				
845.	<i>Salix rosmarinifolia</i> L.	nPh	Fr	SchE	Mg-Og-Tr	MsX-MsHg	SilPs	BTsM	EUR-SIB	G3.4232 G11				
846.	<i>Salix triandra</i> L.	Ph	Fr	He	MgTr	Ms-Hg	SilPr	B-M	EURAS	C3				
847.	<i>Salix vinogradovii</i> A. Skvorts.	Ph	Fr	He	OgMsTr	HgMs	SilPr	BTsM	EURAS	E3				
Santalaceae														
848.	<i>Thesium arvense</i> Horvatovszky	HKr	Per	He	MsTr	XMs	PrSt	sMM	EUR-WAS	E1 E2				
849.	<i>Thesium linophyllum</i> L.	HKr	Per	SchE	MsTr	XMs	Sil	sM	EUR	G1 E1				

№	Species within genus	Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hygromorphs	Cenomorphs	Zonality	Regionalities	Biotopes	Adventive status
Serophulariaceae											
850.	<i>Chaenorhinum minus</i> (L.) Lange	T	Ann	He	MsTr	MsX	CulRu	B-M	EUR	I	
851.	<i>Digitalis lanata</i> Ehrt.	HKr	Per	He	MsTr	X	RuCu	TsM	EUR	I	
852.	<i>Euphrasia pectinata</i> Ten.	T	Ann	He	MsTr	MsX	St	B-M	EURAS-SIB	E1	
853.	<i>Euphrasia stricta</i> D.Wolff ex J.F.Lehm.	T	Ann	ScHe	MsTr	Ms	PrSil	TsM	EUR	E2	
854.	<i>Linaria dulcis</i> Klok.	G	Per	He	OgTr	MsX	SilPs	sM	PONT	G3	
855.	<i>Linaria genistifolia</i> (L.) Mill	HKr	Per	He	OgMs Tr	X	PrStPs	TsMM	EURAS	E1	
856.	<i>Linaria vulgaris</i> Mill.	G	Per	ScHe	MsTr	MsX	SMnRu	B-M	EUR-WAS	E5.2 J	
857.	<i>Melampyrum cristatum</i> L.	T	Ann	ScHe	MsTr	Ms	PsPr	BTsM	EUR-WSIB	E2	
858.	<i>Odontites luteus</i> (L.) Clairv.	T	Ann	He	OgMs Tr	MsX	RuPiSt	sMM	EUR	E1	
859.	<i>Odontites vulgaris</i> Moench	T	Ann	ScHe	MsTr	MsX	RuSpPr	B-M	EURAS	E2 E1	
860.	<i>Rhinanthus aestivalis</i> (N.Zing.) Schischk. et Serg.	T	Ann	He	MsTr	Ms	RuSMn-Pr	BTsM	EUR-SIB	E2 E5.2	

№	Species within genus	Zonality						Biotopes	Adventive status
		Climamorphs	Biomorphs	Heliomorphs	Tropohomorphs	Hymromorphs	Cenomorphs		
861.	<i>Scrophularia nodosa</i> L.	HKr	Per	HeSc	MsMgTr	Ms	PrSMnSil	B-M	EURAS G1
862.	<i>Verbascum austriacus</i> Schott	HKr	Per	He	MsTr	XMs	St	BTsM	EUR-WSIB E1
863.	<i>Verbascum blattaria</i> L.	T	Ann-Bien	He	AlkTr	MsX	HalPr	TsMM	EURAS-WSIB E2 E6
864.	<i>Verbascum densiflorum</i> Bertol.	HKr	Bien	He	MsMgTr	XMs	RuPSSMn	TM	EUR E5.2
865.	<i>Verbascum lychnitis</i> L.	HKr	Bien	ScHe	OgMsTr	MsX	RuSMMn	TsMM	EUR E5.2
866.	<i>Verbascum phlomoides</i> L.	HKr	Bien	He	OgMsTr	MsX	StRu	TsM	EUR E1
867.	<i>Verbascum phoeniceum</i> L.	HKr	Per	ScHe	OgMgTr	MsX	SMnPrSt	TsMM	EUR-WAS E1 E2
868.	<i>Veronica anagallis-aquatica</i> L.	HKr	Per	He	MsTr	HeHg	AqPal	PL	CIRCPOL C3.24
869.	<i>Veronica anagalloides</i> Guss.	HKr	Per	He	MgTr	Hg	PrPal	TsMM	EURAS-SIB D2.3
870.	<i>Veronica arvensis</i> L.	THKr	Ann-Bien	He	MsTr	MsX	StRu	B-M	EURAS E1 Adv

№	Species within genus	Biotoxes						Adventive status
		Zonality	Regionalities	Cenomorphs	Hypromorphs	Tropohomorphs	Heliomorphs	
871.	<i>Veronica austriaca</i> L.	HKr	Per	ScHe	CaMsTr	MsX	sMn-CrSt	EUR E1 E5.2
872.	<i>Veronica barrelieri</i> Schot.	HKr	Per	He	MsTr	MsX	PtSt sMM	EUR E1
873.	<i>Veronica chamaedrys</i> L.	HKr	Per	ScHe	MsTr	Ms	PrSMn B-M	EUR E5.2
874.	<i>Veronica dillenii</i> Crantz	HKr	Ann	ScHe	OgTr	MsX	Sil B-M	EURAS G1
875.	<i>Veronica hederifolia</i> L.	T Bien	Ann Bien	ScHe	MsTr	XMs	RuSMn-SiPt	EURAS B-M EURAS E1 E5.2
876.	<i>Veronica longifolia</i> L.	HKr	Per	ScHe	MgTr	HgMs	SilPr PL	EURAS+ AM E2 G1
877.	<i>Veronica opaca</i> Fr.	T	Ann	He	MsTr	MsX	Ru BTsM	EUR I Adv
878.	<i>Veronica persica</i> Poir.	T	Ann	He	MsTr	XMs	Ru B-M	EUR-WAS I J Adv
879.	<i>Veronica polita</i> Fries	T	Ann Bien	He	MsTr	XMs	Ru PL	EURAS+ AM I J Adv

№	Species within genus	Biotopes										Adventive status
		Cenomorphs			Regionalities			Zonality				
880.	<i>Veronica prostrata</i> L.	HKr	Per	ScHe	AlkMsTr	MsX	StHal- PrSMn	TsM	EUR-WAS	E1 E2 G3		
881.	<i>Veronica spicata</i> L.	HKr	Per	ScHe	Og-MgTr	MsX	SMnSt	B-M	EURAS	E1 E5.2		
882.	<i>Veronica teucrium</i> L.	HKr	Per	ScHe	OgMsTr	XMs	StSMn	BTsM	EUR-WAS	E5.2 E1		
883.	<i>Veronica triphylllos</i> L.	T	Ann	He	MsTr	MsX	RuPtSt	TsMM	EUR	E1	Adv	
884.	<i>Veronica verna</i> L.	HKr	T	Ann	He	MsTr	MsX	PrSt- Ru	B-M	EUR-WAS	E1 J	
		HKr	Bien									
Simarubaceae												
885.	<i>Ailanthus altissima</i> (Mill.) Swingle	Ph	Arb	ScHe	OgMsTr	X-Ms	SilCu- Ru	TsMM	AS+EUR+ NAM	I J	Adv	
Solanaceae												
886.	<i>Datura stramonium</i> L.	T	Ann	He	MgTr	Ms	Ru	PL	CIRCPOL	I J	Adv	
887.	<i>Hyoscyamus niger</i> L.	HKr	Bien	He	MsTr	MsX	Ru	TsMM	EUR-WAS	J	Adv	

№	Species within genus	Zonality						Regionallities		Biotopes	Adventive status
		Hygromorphs	Tropohormorphs	Cenomorphs	Hygromorphs	Tropohormorphs	Cenomorphs	Hygromorphs	Tropohormorphs		
888.	<i>Lycium barbarum</i> L.	nPh	Fr	He	OgMsTr	MsX	CuRu	TsMM	EUR-WAS	J I	Adv
889.	<i>Lycopersicon esculentum</i> Mill.	T	Ann	He	MgTr	Ms	RuCu	TRr	SAM+EURAS	I	Adv
890.	<i>Nicandra physaloides</i> (L.) P. Gaern.	T	Ann	He	MsTr	Ms	RuCu	TRr	SAM+EURAS	I	Adv
891.	<i>Pysalis alkekengi</i> L.	HKr	Bien Per	ScHe	MsTr	XMs	CuSi	B-M	EURAS	G1	
892.	<i>Solanum cornutum</i> Lam.	T	Ann	He	MsTr	Ms	Ru	sMTr	SAM	I	Adv
893.	<i>Solanum dulcamara</i> L.	Ch	Per	ScHe	OgMsTr	MsHg	SilPal	B-M	EURAS	C3	
894.	<i>Solanum nigrum</i> L.	T	Ann	He	MsTr	Ms	Ru	PL	CIRCPOL	I J	Adv
	Tiliaceae										
895.	<i>Tilia cordata</i> Mill.	Ph	Arb	ScHe	MsMg-Tr	Ms	Sil	TsM	EUR-WAS	I G1	
896.	<i>Tilia europaea</i> L. (<i>Tilia platyphyllos</i> <i>Tilia cordata</i>)	Ph	Arb	ScHe	MsTr	Ms	SilCu	sM	EUR	I	

№	Species within genus	Biotopes										Adventive status		
		Climamorphs			Heliomorphs			Tropohomorphs			Hyalomorphs			Zonality
		Arb	ScHe	MsTr	XMs	SilCu	TsM	EUR	I	Adv				
897.	<i>Tilia platyphyllos</i> Scop.	Ph	Arb	ScHe	MsTr	XMs	SilCu	TsM	EUR	I	Adv			
	Trapaceae													
898.	<i>Trapa natans</i> L.	T	Ann	He	MsMgTr	Pl r	Aq	TsM	CIRCPOL	C1.2412 C2.33				
	Ulmaceae													
899.	<i>Celtis occidentalis</i> L.	Ph	Arb	ScHe	Og-MgTr	MsX	SilCu	BsTr	NAM	I	Adv			
900.	<i>Celtis caucasica</i> Willd.	Ph	Arb	ScHe	Og-MgTr	MsX	SilCu	sMM	EURAS	I	Adv			
901.	<i>Ulmus laevis</i> Pall.	Ph	Arb	HeSc	Og-MgTr	XMs- MsHg	Sil	BTsM	EUR	G1				
902.	<i>Ulmus minor</i> Mill.	Ph	Arb	ScHe	MsTr	MsX	SilSMn	TsMM	EURAS	E5.2				
903.	<i>Ulmus pumila</i> L.	Ph	Arb	ScHe	OgMsTr	MsX	SilCu- Ru	TsMM	AS	J1	Adv			
904.	<i>Ulmus suberosa</i> Moench	Ph	Arb	ScHe	MsTr	X	SMn	sMM	EURAS	E5.2				
	Urticaceae													
905.	<i>Urtica dioica</i> L.	G	Per	He- Sc	MsMgTr	XMs- MsHg	SilRu	B-M	CIRCPOL	G1 J1				

№	Species within genus	Biogeographical status									
		Climamorphs			Biomorphs			Tropohomorphs			Regionalities
Zonality	Cenomorphs	Hypromorphs	Heliomorphs	OgMsTr	XMs	PsilPs	sM	WEURAS	E1		
925.	<i>Viola rupestris</i> F.W. Schmidt	T HKr	Ann Bien	SchHe	OgMsTr	XMs	PsilPs	sM	WEURAS	E1	
926.	<i>Viola suavis</i> M.Bieb.	HKr	Per	HeSc	MsTr	HgMs	PrSil	TsMM	EUR-WAS	E2	
927.	<i>Viola tricolor</i> L.	T HKr	Ann Bien	SchHe	MsTr	MsX	RusMn-Pr	B-M	EUR	E2	I
Vitaceae											
928.	<i>Parthenocissus quinquefolia</i> (L.) Planch.	nPh	Fr	SchHe	MsTr	Ms	SilCul-Ru	TsMM	EUR+AM	FA.1	Adv
929.	<i>Vitis labrusca</i> L.	nPh	Fr	SchHe	MsTr	Ms	SilCul-Ru	TsMM	NAM	I C3.21	Adv
930.	<i>Vitis vinifera</i> C.C. Gmel.	nPh	Fr	SchHe	MsTr	Ms	SilCul-Ru	sMM	WEURAS	I C3.21	Adv
Zygophyllaceae											
931.	<i>Tribulus terrestris</i> L.	T	Ann	He	MsOgTr	MsX	PsRu	MsTr	EURAS+-AF	C3.61 E1.2G J	Adv
932.	<i>Zygophyllum fabago</i> L.	G	Per	He	AlkOgTr	MsX	HalPsRu	MsTr	EURAS+-AF	E6	Adv

Bioecomorphic structure of the flora

As part of the flora of Dnipro city, perennials predominated among biomorphs, 494 species (53%), and hemicryptophytes predominated among climamorphs, 509 species (54,6%).

Ecomorphic analysis showed that heliophytes dominated among heliomorphs (474 – 50,7%) and scioheliophytes (371 – 39,7%), mesotrophs dominated among trophomorphs (577 – 61,7%), mesophytes dominated among hygromorphs (478 – 51,2%).

Among the cenomorphs, ruderants predominate (202 – 21,6%), which is explained by the excessive urbanization of Dnipro city territory.

Geographical analysis

Geographical analysis of flora showed that urban flora of Dnipro city is represented by 19 zonal chorological types of habitats and 28 regional chorological types of habitats.

The majority of urban flora species (53,4%) have ranges in the temperate Mediterranean and Mediterranean zones (temperat-submeridional-meridional, submeridional-meridional, submeridional and meridional types). The species composition reflects zonal features of flora of the city as a subarid territory.

Analysis of adventive fraction of flora

Adventive flora was represented by 263 species (28,2% of the total number of flora species) belonging to 61 families (Table. 1). Annuals (92 species, 35%) was dominated in composition of the adventive flora (Baranovsky et al, 2016).

At the time of invasion, adventive flora of the city was divided into archaeophytes (plant species introduced in Ukraine before the XV century) and neophytes (plant species introduced after the XV century) (Protopopova, 1991).

Modern allochthonic element of the flora of Dnipro city (the history of which has a little more than 2 centuries), is divided into two groups: archaeophytes, 94 species (35,7% of the total number of adventitious species) and neophytes, 169 species (64,3%).

According to the degree of naturalization, adventive flora species of Dnipro city were distributed as follows: naturalized archaeophytes,

73 species (27,8%), naturalized neophytes, 75 species (28,5%), spontaneous archaeophytes, 21 species (8,0%), spontaneous neophytes, 94 species (35,7%).

Distribution of adventitious tree and shrubbery vegetation was associated with the introduction and use of many species in landscaping as well as with the participation of adventitious species in the self-growth of free areas. Among the adventitious tree and shrubbery species of urbanoflora, the following have been found: *Acer negundo* L., *Ailanthus altissima* (Mill.) Swingle, *Armeniaca vulgaris* Lam., *Caragana arborescens* Lam., *Cerasus vulgaris* Mill., *Cerasus mahaleb* (L.) Mill., *Elaeagnus angustifolia* L., *Gleditzia triacanthos* L., *Lycium barbatum* L., *Morus alba* L., *Parthenocissus quinquefolia* (L.) Planch., *Ribes aureum* Pursh, *Robinia pseudacacia* L., *Salix fragilis* L., *Ulmus pumila* L., etc. (Table 1).

Especially widespread in the territory were *Acer negundo*, *Robinia pseudacacia*, *Ulmus pumila*, *Amorpha fruticosa*, *Parthenocissus quinquefolia*. In the current period these species acquire the rank of invasive and litter natural and artificial phytocenoses, which leads to a general impoverishment of autochthonous (local) flora.

Analysis of flora in main biotopes

In Dnipro city, biotopes were classified according to the European Nature Information System (EUNIS) in compliance with the accepted names and codes of biotopes (Table 1).

The biotope database (EUNIS) is methodically quite advanced. It has a hierarchical structure that allows to generalize information at different levels, reflects ecosystems from natural to artificial, has a successful coding and other features (Didukh, 2012).

We made an attempt to classify the biotopes of Dnipro city by the pan-European system EUNIS.

All flora species in Dnipro city have been registered in the biotopes where they occur: aquatic biotopes (C), swampy biotopes (D), herbaceous biotopes (E), forest biotopes (G), semi-native biotopes (I) and artificial biotopes (J) with their subordinate categories.

It was also carried out the analysis of the number of rare, endangered plant species and adventive plant species within each of these biotopes.

According to the floristic richness, floras of biotopes on land and water areas of Dnipro city were distributed as follows: biotope E1

(steppes, steppified meadow), 231 species; biotope J, (artificial biotopes, technoecosystems, residential buildings, transport networks, etc.), 217 species; E2 (mesotrophic meadows), 143 species, I (semi-native biotopes, former arable lands), 124 species; G1 (deciduous forests) 108 species; E5.2 (thermophilic forest edges), 76 species. Other biotopes were represented by less species: D (swampy biotopes), 47 species; E3 (hygrophytic meadows), 47 species; E6 (internal saline steppes (meadows), 45 species; C3 (littoral zone of internal surface water bodies), 44 species; C1 (shallow water of non-flowing water bodies), 40 species, G3 (coniferous forests), 32 species; E1.2G (sandy steppes), 30 species and others.

Of all biotopes of the city, the greatest floristic richness and raritet variety were noted in biotope E1 – steppes and steppified meadows. Under these conditions, 27 of 231 plant species belonged to rare category (all from the Red List of Dnipropetrovsk region). Of these, two species were listed in the global Red List, one species in European Red List, and five species in the Red Book of Ukraine.

The least diversity of raritet plant species was observed in artificial biotopes (biotope J), but with a significant floral richness.

The distribution of adventive species by the main biotopes was characterized by inverse regularity. Most adventitious plant species occur on biotopes J (artificial) and I (semi-native). No adventive species have been found in biotopes D (swampy biotopes) and E3 (hygrophytic meadows).

SOZOLOGICAL CHARACTERISTICS

Vegetation within megacities is affected by significant anthropogenic transformation (the disappearance of native, the emergence of adventive plant species). Despite this, a significant diversity of rare vascular plant species has been observed in the flora of urban and water areas.

The initial preservation measure for the regional rare flora is registration and compilation of rare and endangered rare species in regional red lists and red books.

In composition of vascular flora of Dnipro city there are 61 species of rare and endangered vascular plants (Red Book of Dnipropetrovsk Oblast, 2010).

They make up 13,9% of the 451 species included In the Red Book of Dnipropetrovsky Oblast (respectively in the Red List of rare and endangered species of Dnipropetrovsk Oblast approved by the decision of the regional Council (Red List of species ..., 2011).

Among the rare and endangered vascular plant species of Dnipro city, 2 species were listed in the World Red List (*Dianthus lanceolatus* Steven ex Rchb., *Astragalus dasyanthus* Pall.), and 5 species were listed in the European Red List (*Senecio borysthenicus* (DC.) Andrz., *Alyssum savranicum* Andz., *Dianthus lanceolatus* Steven ex Rchb., *Astragalus dasyanthus* Pall., *Rumex ucrainicus* Fisch. Ex Spreng.) (Table 2).

The Red Book of Ukraine includes 20 plant species, of which 11 species are vulnerable, two species are rare, one species is endangered, and six species are not evaluated (Red Book of Ukraine, 2009); the list of the Berne Convention includes two species of flora of the water area and of Dnipro city territory as *Salvinia natans* (L.) Ael., and *Pulsatilla grandis* Wender.

Table 2. – Analysis of rare flora fraction. RLD – Red List of Dnipropetrovsk Region; RBU – Red Book of Ukraine; ERL – European Red List; WRL – World Red List. Bern – Berne Convention. RLD categories: 0 – extinct (a species that has not been reported in the nature for about 50 years), 1 – endangered, 2 – vulnerable, 3 – rare; 4 – undetermined (insufficient information about the species or its status requires clarification). RBU categories: E – endangered, V – vulnerable, R – rare; N – undetermined status. ERL, WRL categories:

№	Species within genus	Status and environmental category				
		RLD	RBU	ERL	WRL	Bern
1.	Equisetophyta Equisetaceae <i>Equisetum hyemale L.</i>	3				
2.	Polypodiophyta Driopteridaceae <i>Dryopteris filix-mas (L.) Schott.</i>	3				
3.	Ophioglossaceae <i>Ophioglossum vulgatum L.</i>	1				
4.	Salviniaceae <i>Salvinia natans (L.) Ael.</i>	2	N			I
5.	Thelypteridaceae <i>Thelypteris palustris Schott</i>	2				
6.	Magnoliophyta Liliopsida Alliaceae <i>Allium savranicum Bess.</i>	3	V			
7.	Convallariaceae <i>Convallaria majalis L.</i>	3				
8.	Cyperaceae <i>Juncellus serotinus (Rottb.) Clarke</i>	4				
9.	<i>Juncellus pannonicus (Jacq.) Clarke</i>	1				
10.	Hyacinthaceae <i>Bellevalia sarmatica (Georg) Woronow</i>	3				
11.	<i>Hyacinthella leucophaea (C.Koch) Schur</i>	3				
12.	<i>Ornithogalum bouscheanum (Kunth) Aschers.</i>	3	R			
13.	Ornithogalum fimbriatum Willd.	2				
14.	<i>Scilla bifolia L.</i>	3				

№	Species within genus	Status and environmental category				
		RLD	RBU	ERL	WRL	Bern
15.	<i>Scilla sibirica</i> L.	3				
16.	Hydrocharitaceae <i>Stratiotes aloides</i> L.	3				
17.	Iridaceae <i>Crocus reticulates</i> Stev. ex Adam.	3	N			
18.	<i>Iris halophila</i> Pall.	3				
19.	<i>Iris pumila</i> L.	3				
20.	Lemnaceae <i>Wolffia arrhiza</i> (L.) Horkel ex Wimmer	3				
21.	Liliaceae <i>Gagea lutea</i> (L.) Ker-Gawl.	3				
22.	<i>Tulipa qercetorum</i> Klok et Zoz	3	V			
23.	Melanthaceae <i>Bulbocodium versicolor</i> (Ker-Gawl.) Spreng.	2	V			
24.	Orchidaceae <i>Dactylorhiza incarnata</i> L.	1	R			
25.	<i>Epipactis palustris</i> (L.) Crantz	2	V			
26.	<i>Orchis militaris</i> L.	2	V			
27.	<i>Orchis palustris</i> Jacq.	3	V			
28.	Poaceae <i>Elytrigia elongata</i> (Host) Nevski	3				
29.	<i>Leersia oryzoides</i> (L.) Sw.	3				
30.	<i>Stipa capillata</i> L.	3	N			
31.	<i>Stipa lessingiana</i> Trin. et Rupr	3	N			
32.	Potamogetonaceae <i>Potamogeton natans</i> L.	3				
33.	Magnoliopsida Asteraceae <i>Inula helenium</i> L.	3				
34.	<i>Saussurea amara</i> (L.) DC.	3				
35.	<i>Senecio borysthениcus</i> (DC.) Andrz.	3		R		
36.	Betulaceae <i>Alnus glutinosa</i> (L.) P.Gaenth.	3				
37.	Brassicaceae <i>Alyssum savranicum</i> Andz.	4	E	I		

№	Species within genus	Status and environmental category				
		RLD	RBU	ERL	WRL	Bern
38.	<i>Cardamine dentata</i> Schult.	3				
39.	<i>Hesperis tristis</i> L.	3				
40.	<i>Lepidium crassifolium</i> Waldst. et Kit.	4				
	Campanulaceae					
41.	<i>Campanula glomerata</i> L.	3				
42.	<i>Campanula trachelium</i> L.	3				
	Caryophyllaceae					
43.	<i>Dianthus lanceolatus</i> Steven ex Rchb.	2		I	R	
44.	<i>Dianthus squarrosus</i> M. Bieb.	1				
	Fabaceae					
45.	<i>Astragalus dasyanthus</i> Pall.	2	V	I	R	
46.	<i>Astragalus ponticus</i> Pall.	3	V			
	Lamiaceae					
47.	<i>Lamium album</i> L.	4				
48.	<i>Salvia austriac a</i> Jacq.	3				
	Nymphaeaceae					
49.	<i>Nuphar luteum</i> (L.) Smith	3				
50.	<i>Nymphaea alba</i> L.	2				
	Onagraceae					
51.	<i>Epilobium palustre</i> L.	4				
	Polygonaceae					
52.	<i>Rumex ucrainicus</i> Fisch.exSpreng.	3		R		
	Primulaceae					
53.	<i>Naumburgia thrysiflora</i> (L.) Rchb.	3				
54.	<i>Primula veris</i> L.	0				
	Ranunculaceae					
55.	<i>Anemone ranunculoides</i> L.	3				
56.	<i>Caltha palustris</i> L.	3				
57.	<i>Pulsatilla grandis</i> Wender.	2	V			I
58.	<i>Pulsatilla pratensis</i> (L.) Mill.	3	N			
	Salicaceae					
59.	<i>Salix caprea</i> L.	3				
	Trapaceae					
60.	<i>Trapa borysthonica</i> V.Vassil.	2	N			
	Valerianaceae					
61.	<i>Valeriana officinalis</i> L.					

All these species together with regional raritet species are included in the List of rare and endangered species of Dnipropetrovsk Oblast. Rare and endangered species are divided into sozological categories as follows: disappeared – one; endangered – four; vulnerable – 12; rare – 42; undetermined – six.

On the city territory, most of the rare and endangered plant species are aquatic, swampy, meadow and forest. They are confined to the Dnieper valley. Smaller numbers of plant species comprise of species of gully habitats: steppe, meadow and forest.

According to the composition of cenomorphs rare flora of Dnipro city is distributed as follows: Pr (pratants, meadow) 25%, Sil (sylvants, forest) 24%, St (stepants, steppe) 19%, Aq (aquants, aquatic) 11%, Pal (paludants, swampy) 6%, Ps (psammophytes, sandy) 6%, and species of cenomorphs occurred solitary 9%.

Vegetation within megacities is affected by significant anthropogenic transformation (the disappearance of native, the emergence of adventive plant species). Despite this, flora of water bodies of urban areas has a significant phytodiversity including the presence of rare species.

Water bodies of various types are located within the territory of Dnipro city: shallow waters of the upper part of the the Zaporozhye Reservoir, water bodies in the left-bank and right-bank floodplain, water bodies in the second and third terraces of Dnieper River, as well as water bodies of tributaries: Orel and Samara rivers.

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Izdevniecība “Baltija Publishing”
Valdeķu iela 62 – 156, Rīga, LV-1058

Iespiepts tipogrāfijā SIA “Izdevniecība “Baltija Publishing”
Parakstīts iespiešanai: 2020. gada 20. novembris
Tirāža 300 eks.