The Flora of Kurgans in the West Pontic Grass Steppe Zone of Southern Ukraine

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The results of studies on the biodiversity of the kurgan flora in west Pontic grass steppe of the Black Sea Lowland (the western part of Kherson region) are presented. Twenty-six of about 183 kurgans higher than 3 m, distributed over an area of approx. 3280 km^2, were surveyed. The kurgan flora in the grass steppe contained more species than in the desert steppe, and was estimated at 352 species. The number of species on particular kurgans ranged from 72 to 141, 110 on average. Anthropogenic influences, such as the immediate vicinity of cultivated fields, contributed significantly to the penetration of synanthropic species, particularly therophytes, from the neighbouring habitats to the kurgans. Short-living plants: one, two or three years old were predominant (43%), phanerophytes accounted for only 5% of the kurgan flora. Halophyte species were much less numerous here than in the desert steppe. Species of alien origin, i.e. archaeophytes and kenophytes, constituted 30% of the kurgan flora. A total of 28 syntaxa of a higher rank were represented in all the kurgans studied. As in the case of the desert steppe, species belonging to classes *Festuco-Brometea* and *Stellarietea mediae* were predominant in the grass steppe, which also confirmed the semi-natural character of the kurgan flora. The species of particularly high floristic value were: *Amygdalus nana, Astragalus borysthenicus, A. dasyanthus, A. pallescens, Cerastium ucrainicum*, *Dianthus lanceolatus*, *Ephedra distachya, Eremogone rigida, Galium volhynicum Hyacinthella leucophaea, Linaria biebersteinii, Phlomis hybrida Prangos odontalgica, Ranunculus scythicus, Stipa capillata, S. lessingiana, S. ucrainica* and *Tulipa biebersteiniana*. The species encountered on the kurgans comprised 22% of the total flora of steppes in Ukraine, and about 56% of the flora of the Ascania Nova Biosphere Reserve. Kurgans are protected by law as archaeological sites. Taking all of this into account, kurgans, which constitute refugia for the steppe flora, should also be put under protection as nature monuments. Kurgans, which are uniformly distributed in the steppe zone, can play an important role in the local restoration of the plant cover that had been practically destroyed on the steppe plains (and differs from the better preserved steppe vegetation of balkas and ravines).

Key words: kurgan flora, barrows, refugia of steppe flora, floristic diversity, west Pontic grass steppe, protection of kurgans, Kherson Region.

Ключові слова: флора курганів, кургани, рефугіум степової флори, флористичне різноманіття, Понтичний злаковий степ, охорона курганів, Херсонська область.

Introduction

This work represents another in a series of publications on the biodiversity of the kurgan flora in the steppe zone of southern Ukraine. The aim of this study was to assess the richness and specific character of the flora of kurgans within *the west Pontic grass steppe* subzone (= fescue/feather-grass, poor forbs steppe = "tipczakovo-kovylnaja step – biednoje raznotravie"), which lies further to the north than *the west and central Pontic desert steppe* subzone which was the subject of the authors' previous studies (Moysiyenko, Sudnik-Wójcikowska 2006a, 2006b, 2006c, Sudnik-Wójcikowska, Moysiyenko [2007]). In addition, the role of kurgans as refugia of steppe flora was determined. The differentiation of microhabitats within the kurgans will be the subject of another article. The data obtained will be used to compare the floristic lists of kurgans from the herb

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grass steppe subzone - *western and central Pontic herb-rich grass steppe* (= fescue/feather-grass, rich forbs steppe = "tipczakovo-kovylnaja step – bogatoje raznotravje") and the forest-steppe zone.

Characteristics of the study area

The area surveyed is located in the southernmost subzone of the true grass steppe zone - forb-poor fescue/feather grass steppe, referred to as west Pontic grass steppe MAP OF THE NATURAL VEGETATION OF EUROPE, [BOHN et al., 2000], in the south bordering the desert steppe. It extends as a 50-150 km wide strip in the south of Ukraine (the Kherson region and the southern parts of the Odesa, Mykolaiv, Dnepropetrovsk, Zaporrizhzhia and Donetsk regions), along the coast of the Black Sea, from the Danube delta to the Sea of Azov, and in the northern part of the Crimean peninsula [РОСЛИННІСТЬ..., 1973, BOHN et al., 2000, ЛАВРЕНКО та ін., 1991].

The survey was carried out in the central part of the Black Sea Lowland (Fig. 1) and the western part of the Kherson region in the districts: Bilozerka, Beryslav, Novovorontsovka (on the right bank of the Dnieper) and Gornostaivka (on the left bank of the river). The kurgans investigated are distributed over an area of about 5280 km^2, extending approximately 150 km from the south-west to the north-east, mainly along the right bank of the Dnieper River, from the village of Tomyna Bałka to Zołota Bałka.

The grass steppe is characterised by a moderately continental climate. The mean January temperatures are between -1 to -4°C, mean July temperatures reach 23-24°C, mean annual temperatures are 9-11°C. Annual precipitation usually remains below 350 mm [ПРИРОДА…, 1998, BOHN et al., 2000].

In some places, the terrain is slightly undulating with numerous balkas declining in altitude toward the Dnieper. The kurgans are located on the highest elevations in the area or between balkas; more rarely on the less steep slopes of the balkas.

The soils that have formed in areas of the grass steppe [СКЛЯР та ін., 1969] are southern chernozem (in the northern part), dark chestnut (central part) and light chestnut soils (southern part). Limestone rocks, loess and clay soils are visible on the slopes of the balkas.

The grass steppe is dominated by euryxerophytic bunch-grasses, mainly *Stipa* species (*S. lessingiana*, *S. ucrainica* and *S. capillata*) as well as *Festuca valesiaca*. *Koeleria cristata* is less frequent. Herbs have low abundance and richness, being represented by typical steppe xerophytes such as *Dianthus guttatus* M.Bieb., *Serratula erucifolia* and *Goniolimon tataricum*. Characteristic is the admixture of scattered dwarf sub-shrubs. Other frequent components include ephemerals (*Holosteum umbellatum*, *Cerastium ucrainicum* and *Erophila verna*), ephemeroids (e.g. *Poa bulbosa*, *Tulipa biebersteiniana* and *Gagea bulbifera*) and hemi-ephemeroids. The herb layer is less dense in the grass steppe (coverage not exceeding 40%), the species diversity is lower (<30 species/relevé), and the summer period of semi-dormancy (characterised by the drying-out of the leaves) is well pronounced. In the bunch-grass steppe region, typical elements of the natural accompanying vegetation – as everywhere in the steppes – are steppe scrub communities of *Prunus stepposa*, *Caragana frutex* and *Spiraea* species [BOHN et al., 2000].

It is estimated that there are about 5029 kurgans in the Kherson Region. About 515 barrows are over 3 m high and 264 are over 4 m (mainly 4,5-7 m). In the study area there are an estimated 183 kurgans higher than 3 m [ОЛЕНКОВСЬКИЙ, 1997]. They are usually located among arable fields. The foot (edge) of the kurgans is often damaged during farming operations, such as cultivation. On the other hand, the kurgans remain practically inaccessible to man during most of the growing season. Nowadays, however, farming practices have ceased in some of the agricultural fields. The top of the kurgans is often disturbed due to the erection of triangulation towers. Sometimes a small depression develops at the edge of a kurgan, in which water accumulates during intensive spring rains, and later flows down through fissures in the slopes. The slopes of the kurgans have been less altered by human activities. The effects of animal activity are visible, e.g. foxes' dens and underground tunnels collapse with time. As a result depressions are formed on the slopes of the barrows. The kurgans are also used for pasturage and are exposed to fires.

A total of 26 kurgans were investigated in west Pontic grass steppe (Fig. 1). Due to problems in establishing the location of the kurgans on archaeological and geo-physical maps, GPS was used to locate the barrows (Table 1).

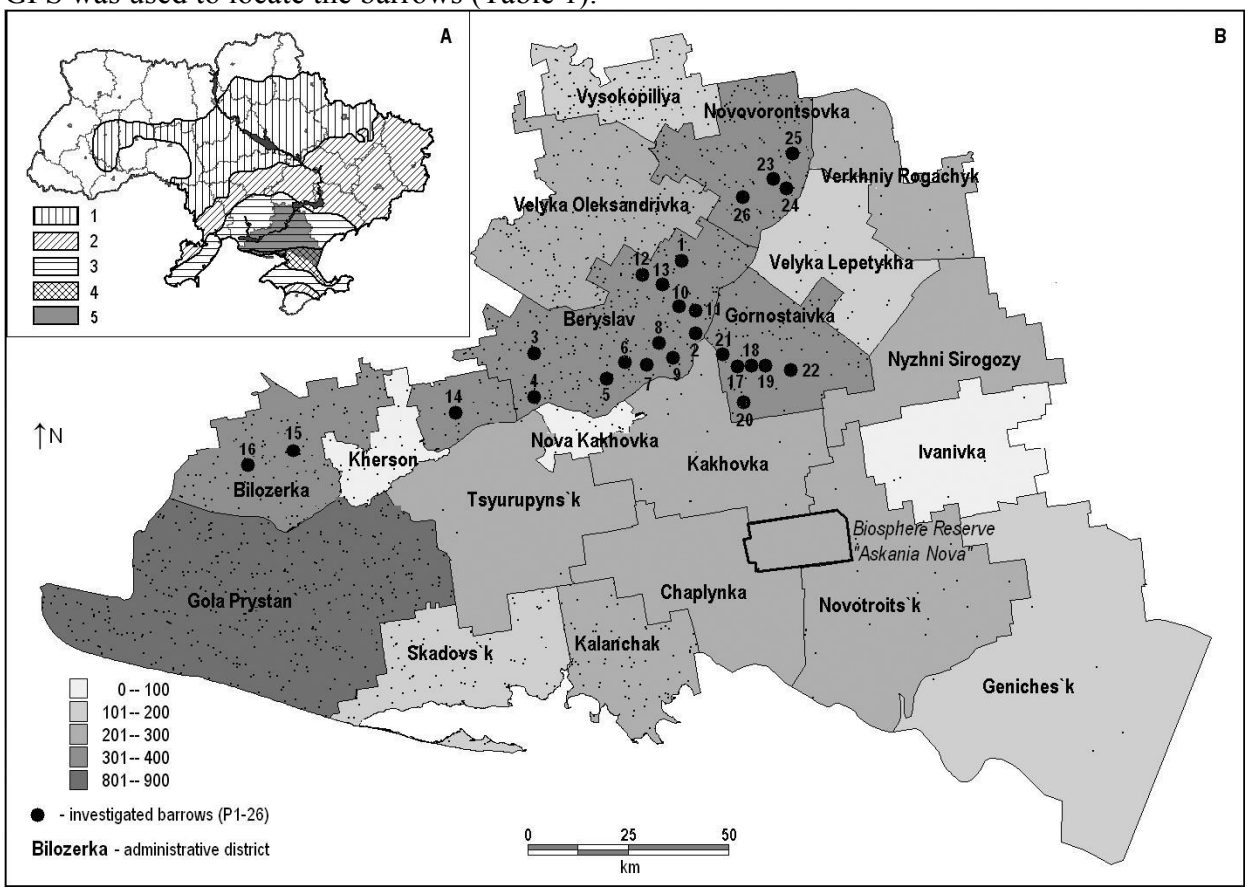

Fig. 1. A) The location of the investigated area and the various types of steppes in Ukraine: 1– forest-steppe; 2 – fescue/feather-grass, rich forbs steppe; 3 – fescue/feather-grass, poor forbs steppe; 4 – wormwood/sod-grass steppe. B) The distribution of the kurgans in the Kherson Region; different shades of grey indicate the number of kurgans in the particular districts (see legend); dispersion of points denote the number of kurgans which are over 3 m high.

Рис. 1. А) Розміщення території дослідження відносно різних типів степів в Україні: 1 – лісостеп; 2 – багаторізнотравні типчаково-ковилові степи; 3 – бідноріznотравні типчаково-ковилові степи; 4 - полиново-злакові степи. В) Розташування курганів в Херсонській області; градацією сірого показано кількість курганів в окремих районах (див. легенду); дисперсією крапок вказано кількість курганів понад 3 м заввишки.

Material and methods

In the present work the same methods as those used in an earlier study [MOYSIYENKO, SUDNIK-WÓJCIKOWSKA, 2006a] were applied. The following criteria were used to select the 26 kurgans:

- kurgans more than 3 m high were chosen;
- good state of preservation of kurgans;
- the state of preservation of the plant cover; it was assumed that the presence of typical steppe species, such tuft grasses as *Festuca valesiaca, Koeleria cristata* and *Stipa capillata*, was indicative of a relatively good condition of plant cover.

The flora of 5 microhabitats within 26 kurgans was investigated. The data were compiled in a table (Appendix 1) which contained the following additional information about each taxon: its occurrence and abundance in particular microhabitats within the kurgans investigated, species life form, its status in the historical-geographical classification, and origin in the case of alien species. Floristic

analysis was conducted and the specific character of the kurgan flora in west Pontic grass steppe was determined. A five-grade scale was used to assess the frequency category of the species. Special attention was paid to the proportion of short living plants and alien species in the kurgan flora.

The species nomenclature follows S. MOSYAKIN, M. FEDORONCHUK [1999], Latin names of syntaxa are given according to В. СОЛОМАХА [1996], Б. МІРКІН, Л. НАУМОВА [1998], and W.MATUSZKIEWICZ [2001].

Table 1

The location and size of the investigated kurgans in the west Pontic grass steppe zone in the western part of the Kherson Region

Таблиця 1

Локалізація та розміри досліджених курганів в зоні Понтичного злакового степу на заході Херсонської області

Code of the kurgan	Location (nearest village)	Longitude (E)	Latitude (N)	Height of kurhan (m)	Diameter of kurgan (m)
District Beryslav					
P1	Mylove – Suchanove	33^{0}37’10.7”	47^{0}04’47.9”	6	60
P2	Respublikanets`	33^{0}39’02.8”	47^{0}01’38.4”	7,5	70
P3	Virovka	33^{0}11’43.3”	46^{0}51’45.4”	7	80
P4	L`vove	33^{0}07’25.2“	46^{0}47’19.9“	6,5	80
P5	Novoberyslav	33^{0}27’20.0”	46^{0}52’31.7”	4,5	45
P6	Novoberyslav	33^{0}27’48.7”	46^{0}53’13.3”	5,5	55
P7	Novoberyslav - Zmiyevka	33^{0}30’45.3”	48^{0}53’58.0”	5	60
P8	Zmiyevka	33^{0}35’20.2”	46^{0}54’20.8”	7	75
P9	Zmiyevka – Chervony Mayak	33^{0}35’06.5”	46^{0}54’44.4”	4	50
P10	Novokairy	33^{0}37’04.1”	47^{0}03’05.8“	7,5	70
P11	Novokairy	33^{0}37’05.4“	47^{0}03’04.7“	4	35
P12	Novokairy – Chervony Yar	33^{0}33’31.0”	47^{0}04’36.0”	6	70
P13	Novokairy – Chervony Yar	33^{0}34’08.7	47^{0}04’22.3”	4	35
District Bilozerka					
P14	Ingulets`	32^{0}50’19.0”	46^{0}45’50.4”	4,5	50
P15	Zorivka	33^{0}01’40.1”	46^{0}45’17,6”	6	70
P16	Tomyna Balka	32^{0}17’17.4”	46^{0}37’42.1”	5	60
District Gornostaivka					
P17	Kairy	33^{0}42’24.1”	46^{0}53’25.1”	5	60
P18	Kairy	33^{0}42’40.3”	46^{0}53’22.4	4	50
P19	Kairy	33^{0}43’11.1”	46^{0}53’18.6”	6,5	80
P20	Kairy	33^{0}42’47.0”	46^{0}51’01.9”	5,5	80
P21	Kairy	33^{0}41’38.6”	46^{0}53’50.8”	6	60
P22	Kairy	33^{0}46’36.3”	46^{0}54’01.9”	7	75
District Novovorontsovka					
P23	Mykhaylivka	33^{0}55’44.7”	47^{0}17’48.3”	3,5	40
P24	Mykhaylivka	33^{0}55’44.7”	47^{0}17’48.3”	6,5	80
P25	Zołota Balka	33^{0}56’08.3”	47^{0}21’22.8”	5	60
P26	Gavrylivka	33^{0}49’29.9”	47^{0}14’33.2”	6	70

Results

1. Biodiversity of the kurgan flora

A total of 352 species of vascular plants were reported from 26 kurgans in the west Pontic grass steppe (Appendix 1; the three additional species at the bottom of the table were found on the kurgans in this zone which were not investigated in the present study). The number of species on particular kurgans ranged from 72 to 141, 110 on average. The kurgan flora in the grass steppe was richer in species than the flora of the barrows in the desert steppe zone (305 species) [МОЙСІЄНКО, СУДНІК-ВОЙЦИКОВСЬКА, 2006]. The species belonged to 209 genera and 51 families. The

following families were represented by the greatest number of taxa: *Asteraceae, Poaceae, Fabaceae, Brassicaceae, Lamiaceae, Rosaceae, Scrophulariaceae, Caryophyllaceae, Chenopodiaceae, Boraginaceae, Ranunculaceae, Apiaceae, Polygonaceae* and *Rubiaceae* (Fig. 2). Genera represented by the highest number of taxa were, as follows: *Veronica, Astragalus, Artemisia, Achillea, Euphorbia, Galium, Medicago, Verbascum, Allium, Gagea, Potentilla* and *Vicia.*

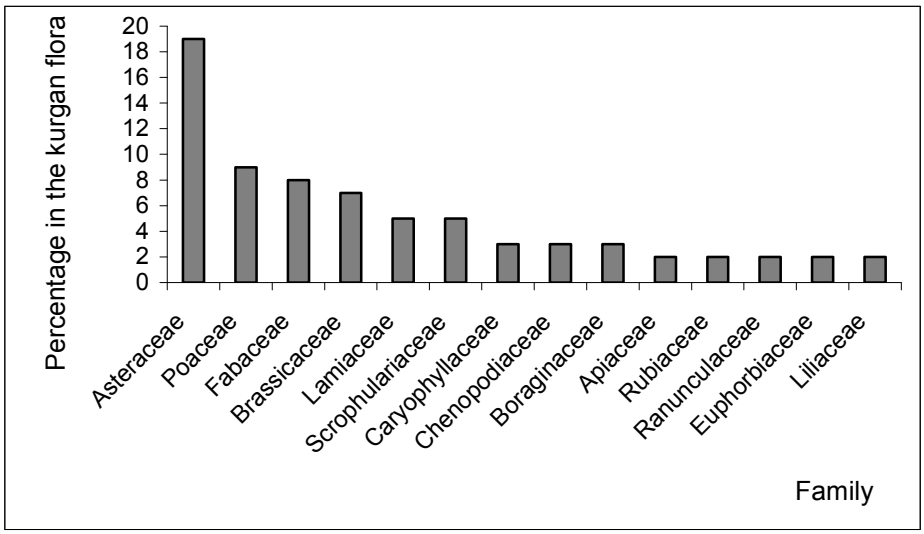

Fig. 2. The best represented families (in terms of species number) in the total flora of kurgans in the west Pontic grass steppe zone.

Рис. 2. Найбільш представлені (за кількістю виді) у флорі курганів Понтичного злакового степу родини.

About 117 species (33% of the total kurgan flora) with the first (I) frequency class (Fig. 3) were considered sporadic or accidental (on 1-2 kurgans only). The group of common species recorded on 21-26 of the studied kurgans (frequency class V) made up about 13% of the flora: *Agropyron pectinatum* (26), *Artemisia austriaca* (26), *Convolvulus arvensis* (26), *Elytrigia repens* (26), *Potentilla argentea* (26 kurgans), *Chondrilla juncea* (25), *Conyza canadensis* (25), *Festuca valesiaca* (25), *Kochia prostrata* (25), *Linaria biebersteinii* (25), *Poa angustifolia* (25), *Poa bulbosa* (25), *Senecio vernalis* (25), *Taraxacum erythrospermum* (25), *Veronica triphyllos* (25), *Anisantha tectorum* (24), *Coronilla varia* (24), *Falcaria vulgaris* (24), *Holosteum umbellatum* (24), *Koeleria cristata* (24), *Lamium amplexicaule* (24), *Potentilla laciniosa* (24), *Stipa capillata* (24), *Tragopogon major* (24), *Trifolium arvense* (24), *Veronica arvensis* (24), *Veronica verna* (24), *Chondrilla latifolia* (23), *Consolida paniculata* (23), *Lactuca serriola* (23), *Medicago falcata* (23), *Myosotis micrantha* (23), *Pterotheca sancta* (23), *Anthemis ruthenica* (22), *Buglossoides arvensis* (22), *Descurainia sophia* (22), *Euphorbia agraria* (22), *Galium humifusum* (22), *Ranunculus scythicus* (22), *Verbascum phoeniceum* (22), *Capsella bursa-pastoris* (21), *Carduus uncinatus* (21), *Potentilla recta* (21), *Sisymbrium altissimum* (21), *Tanacetum millefolium* (21).

The total abundance of every species within the kurgans theoretically ranged from 0 up to 390 (a 3-grade scale was used to estimate the abundance of species, and 5 microhabitats within the 26 kurgans studied were taken into account: 3 x 5 x 26 = 390). The abundance of only a few species exceeded 200, i.e. *Artemisia austriaca* (254), *Festuca valesiaca* (240), *Elytrigia repens* (224), *Agropyron pectinatum* (213) and *Poa bulbosa* (202). At the same time, the above taxa were the most frequently encountered species.

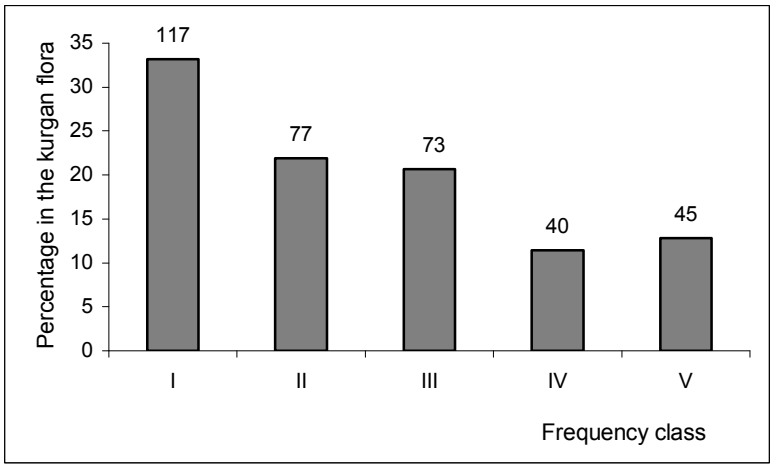

Fig. 3. Subdivision of the total flora of kurgans in the west Pontic grass steppe zone based on frequency class (the absolute number of species in each category is indicated at the top of the bar). Frequency classes: see *Material and Methods*.

Рис. 3. Розподіл флори курганів Понтичного злакового степу за класами частоти трапляння (на верхівці стовпчика вказана абсолютна кількість видів у кожній категорії). Класи частоти трапляння: дивись Матеріали та методи.

2. Spectrum of life forms

The spectrum of life forms in the flora of kurgans in the west Pontic grass steppe zone (Fig. 4) was very similar to that in the desert steppe zone. Short-living plants: one, two or three years old were predominant (43%, Fig. 4). On the kurgans, in places disturbed by animals and man – on the top, slopes and base - ecological niches are formed, which are filled first by therophytes. All the studied kurgans were located among arable fields. The immediate vicinity of cultivated fields and farming operations which resulted in destruction or disturbance of the foot of the kurgans contributed to the significant proportion of weeds (including alien species) in the kurgan flora. About 52% of the short-living plants in the kurgan flora were anthropophytes.

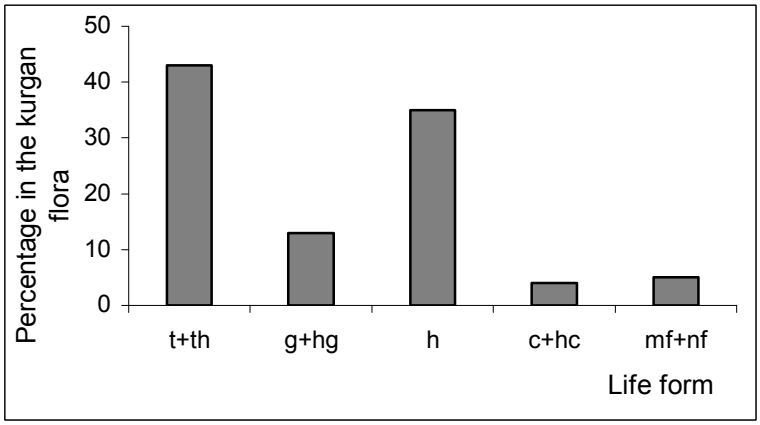

Fig. 4. Spectrum of life forms in the total flora of kurgans in the west Pontic grass steppe zone (for abbreviations see Appendix 1). The absolute number of species in each category is indicated at the top of the bar.

Рис. 4. Спектр життєвих форм флори курганів в зоні Понтичного злакового степу (прийняті скорочення дивись в Додатку 1). На верхівці стовпчика вказана абсолютна кількість видів у кожній категорії.

Hemicryptophytes prevailing in the proper steppe zone comprised about 35% of the kurgan flora. They were, however, more abundant than in the desert steppe zone, and occupied a larger area. It is interesting to note that the percentage of anthropophytes in this group of species did not exceed 8%.

As for the other groups of species, their contribution to the flora of kurgans was less significant; geophytes made up 13% of the kurgan flora, chamaephytes – 4%, and phanerophytes – 5%. Geophytes were mostly represented by rhizomous perennial plants, which were usually found growing at the foot of the kurgans (*Bromopsis inermis, Carex melanostachya, Elytrigia repens, Elytrigia intermedia, Phlomis tuberosa, Poa angustifolia etc.*) and by steppe ephemeroids (*Gagea* sp. div., *Hyacinthella leucophaea, Iris pumila, Ornithogalum kochii, Tulipa biebersteiniana etc.*).

Chamaephytes were the most poorly represented group of species. The following taxa belonged to this group (among them were *Artemisia* species, including typical chamaephytes, e.g. - *Artemisia marschalliana, A. cfr. taurica*) or chamaephytes (in lower part semiwoody): *Artemisia absinthium, A. austriaca* and *A. vulgaris.*

Phanerophytes occurred with a relatively low frequency and abundance on the kurgans in the grass steppe. They were usually recorded at the foot of the barrows, where the soil moisture content is higher than in the other microhabitats within a kurgan. As expected, the proportion of tree species (phanerophytes) in the flora of kurgans in the grass steppe was somewhat higher than in the desert steppe. The above species group comprised 5% of the kurgan flora (18 species with total abundance estimated to be 80). The majority of the species occurs naturally, e.g. in balkas and ravines, but they appear spontaneously on kurgans (*Amygdalus nana, Crataegus monogyna, Ephedra distachya, Prunus stepposa, Rhamnus cathartica, Rosa sp. div.,* and *Sambucus nigra*). Adventive species were introduced to kurgans from protective forest belts (windbreaks), from which they had escaped into the wild (*Armeniaca vulgaris, Amorpha fruticosa, Elaeagnus angustifolia, Gleditsia triacanthos* and *Malus domestica*).

3. Spectrum of socio-ecological groups

The flora of kurgans was distinguished by a wide sociological range. It included the representatives of at least 28 syntaxa of higher ranks (18 syntaxa were among the best represented ones - Fig. 5). As in the case of kurgans in the desert steppe zone, species representing communities of the *Festuco-Brometea* and *Stellarietea mediae* classes had the biggest share concerning complex groups of steppe grasslands and synanthropic communities, 67%, (i.e. 41%, and 26% respectively). Such domination reflects the character of the kurgan flora.

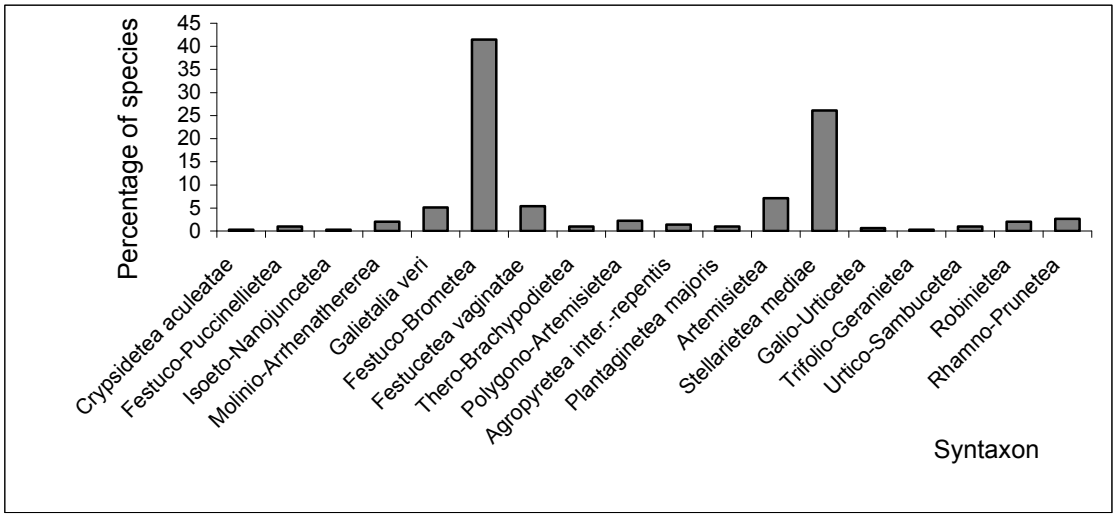

Fig. 5. The number of species from the syntaxa represented in the kurgan flora (the order of syntaxa is not random – syntaxa given in a gradient from natural to synanthropic).

Рис. 5. Кількість видів в синтаксонах представлених на курганах (порядок синтаксонів не випадковий – в градієнті від натуральних до синантропних).

In total, species associated with steppe syntaxa: *Festuco-Brometea, Festucetea vaginatae, Polygono-Artemisietea* comprised as much as 49% of the kurgan flora. Species representing

synanthropic syntaxa (with the exception of *Stellarietea mediae)*, such as *Artemisietea, Agropyretea intermedio-repentis* classes and the *Plantaginetalia majoris* order constituted 36% of the kurgan flora.

Under more favourable soil moisture conditions, species of the class *Molinio-Arrhenatheretea* were found growing at the foot of the kurgans, mostly on their northern side. However, their proportion in the flora of kurgans was estimated at 7%. Arborescent (trees and shrubs) vegetation was poorly represented on the kurgans (5%). As already mentioned, these were mainly plants brought from the balkas, windbreaks (protective forest belts), parks, and were associated with the communities of the *Robinietea* and *Rhamno-Prunetea* classes. Species representing the communities of the classes *Festuco-Puccinellietea* (1%) and *Crypsidetea aculeatae* (0.3%) occurred much more rarely on the kurgans in the grass steppe zone than in the desert steppe.

4. Spectrum of species groups in the historical-geographical classification of plants

The spectrum of synanthropic species groups in the kurgan flora in the grass steppe zone (Tab. 2, Fig. 6) corresponded basically with the spectrum for the desert steppe zone. In both cases native species accounted for about three-quarters of the flora (71 and 77%, respectively). In the grass steppe more than half of the 248 native species on the kurgans (137, i.e. 39 % of the total number of species) were plants not encroaching into habitats altered by man, i.e. non-synanthropic species, represented on the kurgans mostly by steppe plants. Non-synanthropes occurring with the highest frequency were *Carduus uncinatus, Festuca valesiaca, Kochia prostrata, Koeleria cristata, Potentilla laciniosa, P. recta, Stipa capillata, Taraxacum erythrospermum* and *Verbascum phoeniceum.* With respect to frequency and total abundance (4073), non-synanthropes dominated over the other groups of species distinguished in the historical-geographical classification of plants.

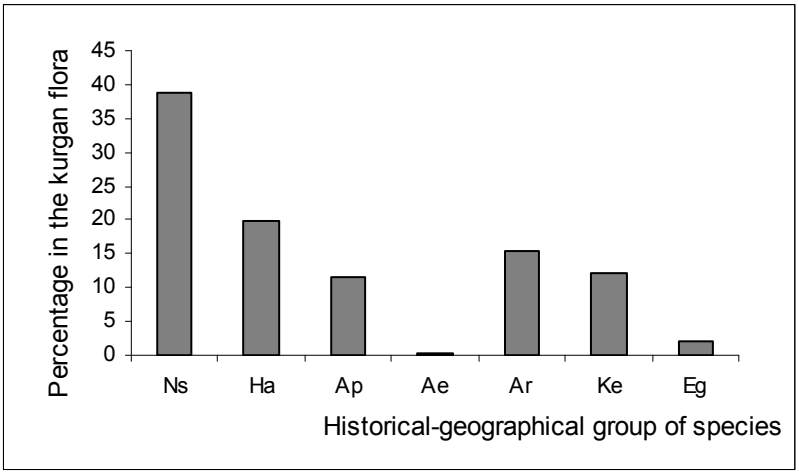

Fig. 6. Historical-geographical-classification of the total flora of kurgans in thewest Pontic grass steppe zone (for abbreviations see Appendix 1).

Рис. 6. Географічно-історична класифікація флори курганів Понтичного злакового степу (прийняті скорочення дивись в Додатку 1).

Apophytes, depending on the level of transformation of the microhabitats into which they penetrate, can be subdivided into 2 groups, hemiapophytes (20%) and euapophytes (11%) (Fig. 6). With respect to frequency, hemiapophytes distinctly predominate over euapophytes, for example 17 hemiapophytes belong to frequency class V (*Agropyron pectinatum, Artemisia austriaca, Chondrilla juncea, Ch. latifolia, Coronilla varia, Euphorbia agraria, Falcaria vulgaris, Galium humifusum, Holosteum umbellatum, Linaria biebersteinii, Medicago falcata, Myosotis micrantha, Poa angustifolia, P. bulbosa, Potentilla argentea, Pterotheca sancta,* and *Veronica verna*), but only 8 euapophytes represented the above frequency class (*Anthemis ruthenica, Consolida paniculata,*

Convolvulus arvensis, Elytrigia repens, Senecio vernalis, Sisymbrium altissimum, Tragopogon major and *Trifolium arvense*). In addition hemiapophytes were the second most numerous (70) and abundant (3209) group of species after non-synanthropes. They clearly dominated over euapophytes (40 species, abundance – 1349). It appears that native synanthropes were less numerous (111) than non-synanthropes, but dominated with respect to total abundance (4566).

Table 2

The number and abundance of species in groups of historical-geographical classification of the flora of kurgans in the west Pontic grass steppe zone

Таблиця 2

Кількість і рясність видів в групах географічно-історичної класифікації флори курганів Понтичних злакових степів

Historical-geographical- group in the kurgan flora	Species in historical-geographical group		Total abundance of species in historical-geographical group	
	Number	%	Number	%
Indigenous species:	248	70.5	6 839	80.9
Non-synanthropes	137	38.9	4 073	38.1
Apophytes:	111	31.6	4 558	42.6
- Hemiapophytes	70	19.9	3 209	30.0
- Euapophytes	40	11.4	1 349	12.6
- Oekiophytes	1	0.3	8	0.1
Anthropophytes:	104	29.5	2 043	19.1
Archaeophytes	54	15.3	1 488	13.9
Kenophytes	43	12.2	541	5.1
Ergasiophygophytes	7	2.0	14	0.1
Total flora	**352**	**100**	**10 682**	**100**

Species of alien origin (anthropophytes) were more or less numerous on all the kurgans studied. The total number of anthropophytes amounted to 104, the number of aliens per kurgan ranged from 14 to 44, 28 on average (in the case of the desert steppe respectively 4-29 species, 16 on average).

In total, alien species comprised 30% of the flora of kurgans in the grass steppe zone (24% in the desert steppe). The higher proportion of aliens in the grass steppe is associated with the fact that all the kurgans investigated in the present study were located among arable fields, whereas most of the kurgans surveyed in the desert steppe were located among vegetation similar to natural. The number of alien synanthropes in the grass steppe zone was nearly identical to the number of apophytes (104 and 111 species, respectively); in the desert steppe the differences were evident (69 and 116) – apophytes dominated.

Anthropophytes represented 26 families, mainly *Asteraceae* (17 species), *Brassicaceae* (17 species), *Poaceae* (12), *Chenopodiaceae* (7), *Fabaceae* (6). The spectra of origin of anthropophytes were similar for both steppe zones. The proportion of American and Asiatic species was almost identical. Species of Mediterranean-European origin were, however, recorded less frequently in the grass steppe zone (Fig. 7).

Archaeophytes dominated among alien species. They constituted 15% of the total flora of kurgans. The abundance of 54 species was estimated at 1488. Kenophytes were less numerous (43 species) and their total abundance was estimated to be 541. The most frequently occurring archaeophytes (frequency class V) were: *Anisantha tectorum*, *Buglossoides arvensis*, *Capsella bursa-pastoris, Descurainia sophia*, *Lactuca serriola*, *Lamium amplexicaule*, *Veronica arvensis* and *V. triphyllos*, which occurred on 21-25 kurgans. *Conyza canadensis* was the only species of kenophyte included in frequency class V. Two kenophytes represented frequency class IV (*Amaranthus retroflexus* and *Chorispora tenella*) and 11 species – frequency class III (*Amaranthus albus, Arabidopsis thaliana, Camelina rumelica, Cannabis sativa, Cardaria draba, Centaurea diffusa, Iva xanthiifolia, Kochia scoparia, Reseda lutea, Rumex patientia* and *Xanthium albinum*).

Ergasiophygophytes were also noted on the kurgans in the grass steppe zone. The above group of species escaped from the culivated fields surrounding the kurgans and became temporarily established on the barrows. They, however, made up only 2% of the total flora of kurgans and were practically absent in the desert steppe zone.

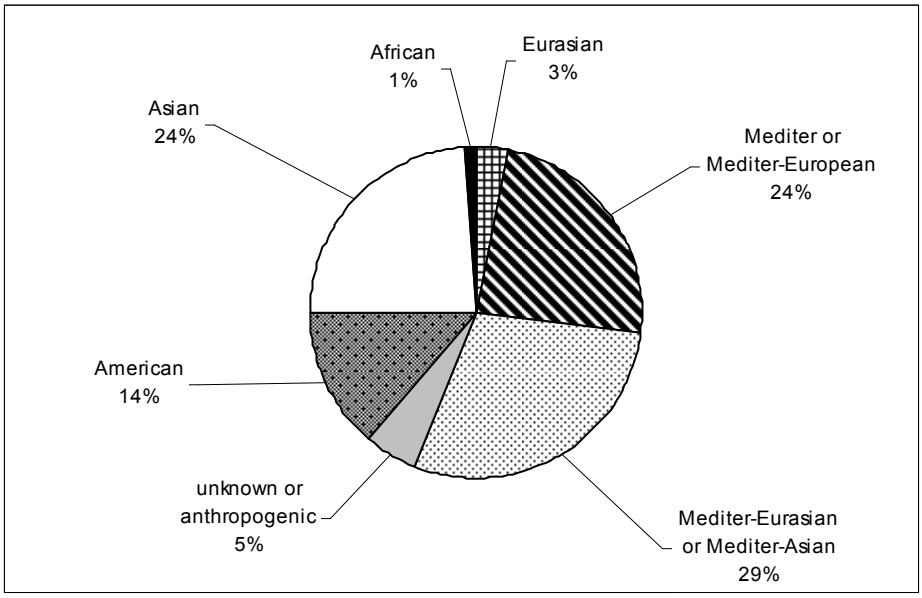

Fig. 7. Origin of the alien flora of kurgans in the west Pontic grass steppe zone.

Рис. 7. Походження адвентивного елементу флори курганів Понтичного злакового степу.

Floristic values and the problem of protection of the plant cover of kurgans

In their earlier works [MOYSIYENKO, SUDNIK-WÓJCIKOWSKA, 2006a, 2006b] the authors indicated that the plant cover of kurgans was of a steppe character, particularly of the bigger barrows, which had survived among cultivated fields. Therefore, they now play an important role as refugia of steppe species in the agricultural landscape of Ukraine and Europe as well. Kurgans were usually located on watersheds (which was associated with the burial traditions of Scythians). This fact was important in assessing the role of kurgans as refugia for the steppe flora. The size of a kurgan, particularly its height, reflects the social and material status of the dead and his family. The higher the kurgan, the higher the social position of the deceased. The fact that kurgans are located at the highest elevations in the area is of importance as well. As a result, they are visible from a long distance away in the forestless steppe landscape. The kurgans, including those investigated by the authors, were located at the highest elevations in the plain landscape (in the plateau) or on gentle slopes of watersheds. Such location of the kurgans is of particular importance nowadays, in terms of sozology, since steppe watershed areas have been completely ploughed up. The remnants of the original steppe vegetation are protected in the Ascania-Nova Biosphere Reserve. The vast steppe plains**,** seem to be most typical of the steppe zone, since they formed under conditions of minimum exogenic influences. Nowadays steppe fragments are much better preserved in places which were not suitable for agricultural practices, e.g. on slopes in river and stream valleys (river terraces, balkas, ravines, canyons). In such places the character of the plant cover is somewhat different. It forms, in great measure, under the influence of exogenic factors. The soils are washed away due to water erosion. Sometimes clay-rich, loess or limestone parent rocks become exposed. In places where the slopes are steeper, plant communities receive a larger or, sometimes, smaller amount of rainfall and sun exposure than is typical for this zone. As a result, a specific variant of steppe plant cover forms on the slopes, which is quite different from the steppe vegetation on the plains. On the other hand, a similar type of vegetation developes in slightly inclined areas which have not been ploughed up, and immediately adjoining steep slopes within valleys. It should be emphasized that

plant communities typical for the plain steppe have survived on the kurgans. Therefore they play an important role in the reconstruction and restoration of the completely degraded vegetation of the steppe plains. Thus the uniform distribution of kurgans in the whole steppe zone is of relative importance. Although they occupy a relatively small area, the kurgans can play a significant role in the regeneration of the steppe flora over a large area.

In order to define the sozological values for the kurgans studied, the following indices were determined: total species richness, number of non-synanthropic species, including steppe species and those which were particularly rare. The data obtained were compared with analogical data obtained for the Ascania-Nova Biosphere Reserve (which lies in the same zone) where, as mentioned earlier, the only big fragment of the steppe on watershed is protected in Ukraine. The comparison could give interesting results, and will be the subject of another paper. In the present work the authors will analyse only some of the above parameters. It should be noted, however, that the flora of kurgans and the flora of the steppe were surveyed in completely different areas: the most floristically valuable part of the Biosphere Reserve (B3) had an area of 11054 ha [ПРИРОДНО-ЗАПОВІДНИЙ ФОНД…, 1999], whereas the total area covered by the kurgans studied was 20 ha. Therefore some data, e.g. the number of individuals (abundance), and the area occuppied by the particular plant communities cannot be compared. They can, however, be compared in the case of the desert steppe.

A total of 355 (352+3) species of vascular plants were noted on the kurgans studied (compared to 305 taxa in the case of the desert steppe). The minimum number of species found on an individual kurgan amounted to 72, the maximum – 141, 110 on average. Over 100 species were recorded on at least 20 kurgans (77% of the total number of kurgans). The highest kurgans which had the most diversified surroundings contained the richest and most interesting flora: P2 (141 species), P10 (141), P22 (140), P19 (131), P15 (126), P17 and P21 (125), P6 (123), P24 (122) and P20 (121) (see Appendix 1).

Among the species listed (Appendix 1), the majority – over 71% – were native plants, of which at least 18 should be considered as particularly interesting: *Astragalus dasyanthus, A. pallescens, Dianthus lanceolatus*, *Eremogone rigida, Linaria biebersteinii* listed in "Plants of Ukraine in the 1997 IUCN – Red List of Threatened Plants" [МОСЯКІН, 1999], *Astragalus borysthenicus, Galium volhynicum, Phlomis hybrida* from the "Europeaen Red List" [ЧЕРВОНА КНИГА…, 1996], *Stipa capillata, Stipa lessingiana, Stipa ucrainica*, *Tulipa biebersteiniana* and also *Astragalus dasyanthus* – the "Red Data Book of Ukraine" [ЧЕРВОНА КНИГА…, 1996], *Amygdalus nana, Cerastium ucrainicum*, *Ephedra distachya, Hyacinthella leucophaea, Prangos odontalgica, Ranunculus scythicus* – the "Red Data List of Kherson Region" [БОЙКО, ПОДГАЙНИЙ, 2002]. All these species are protected. A total of 2-8 individuals of these species were found on one kurgan, 5 on average. The greatest number of protected species (8) was recorded on a 7,5 m high kurgan P2, in the surroundings of the village of Respublikanets`. Kurgans containing a relatively high number of protected species were P1 and P22 (7 species), and P9, P10, P13, P15, P16, and P25 (6 species). On the other 7 kurgans - 5 protected species were recorded, and on the following 8 sites - 2 on each, and on 3 kurgans - 1 species. Distribution patterns of rare species on the kurgans varied. The majority of them occurred at low frequency and or in a small number. Among them, 10 were noted on 1-2 kurgans (I frequency class). Four taxa were particularly noteworthy: *Tulipa biebersteiniana* (IV frequency class) and *Linaria biebersteinii, Ranunculus scythicus,* and *Stipa capillata* (V class).

A total of 137 (39%) species recorded on the kurgans should be considered as non-synanthropic (Table 2). The majority of them were steppe plants. The maximum number of non-synanthropes on a kurgan ranged up to 57 species, minimum – 14, and 39 on average. The contribution of non-synanthropes on particular kurgans ranged from 20% to 50%.

The present study also aimed at assessing the role of kurgans as refugia for the steppe flora in southern Ukraine. A detailed analysis of the above group of species in the flora of the particular kurgans was, therefore, conducted. Altogether, 199 species associated with such steppe communities as *Festuco-Brometea, Festucetea vaginatae, Galietalia veri* and *Polygono-*

Artemisietea were noted (including steppe apophytes) These species comprised 22% of the total flora of steppes in Ukraine [ПОРІВНЯЛЬНА ОЦІНКА…,1998]. Therefore, kurgans could be recognized as being suitable habitats for this group of species. The proportion of steppe species in the flora of kurgans exceeded 50%, maximum - 75% (except for kurgan D10 – 48%). The average number of steppe species identified on a kurgan was estimated at 70 (minimum number – 48, maximum – 93). The following kurgans were characterised by the highest number of species (over 80): P2, P4, P19, P20, P22 i D24.

The above data can be compared to analogical data obtained for the Ascania-Nova Biosphere Reserve. The most valuable central part of the reserve contained 515 species of vascular plants [ВЕДЕНЬКОВ, 1989, ШАПОВАЛ, 2006]. Some of them (about 110-130 species – Шаповал, personal communication) were associated with "Velyky Chapelsky Pid" (*pid* = a vast depression which has no outflow, inhabited by meadow, water and waterside vegetation). These species were completely absent in the dry, steppe part of the reserve. The following species were typical for the pods: *Beckmannia eruciformis* (L.) Host, *Butomus umbellatus* L., *Damasonium alisma* Mill., *Elatine hungarica* Moesz, *Elytrigia pseudocaesia* (Pacz.) Prokud., *Juncus sphaerocarpus* Nees, *Lindernia procumbens* (Krock.) Borbás, *Lythrum thymifolia* L., *Rumex ucrainicus* Fisch. ex Spreng. and others. The number of species in the steppe part of the reserve was estimated to be 400 (including apophytes and anthropophytes), and was comparable to the number of species on the kurgans (352+3 species) in the fescue-feather grass poor forbs steppe. The Ascania Nova reserve was richer in the number of protected species (31) it contained. It cannot be excluded that in the case of kurgans that are exposed exposed to stronger anthropogenic impact, they are the first group of species to disappear. The proportion of non-synanthropes in the flora of the reserve (52%) was also significantly higher than in the flora of kurgans (39%), in which more resistant apophytes were better represented. The more sensitive non-synanthropes gradually disapppeared from the kurgans. In addition the immediate vicinity of agricultural fields facilitated the invasion of kurgans by weeds (invasion of weeds on the kurgans).

The number of steppe species in the biosphere reserve was estimated at 269 [ПОРІВНЯЛЬНА ОЦІНКА..., 1998], compared with 199 taxa on the kurgans. It is interesting to note that their representation was identical (56%) in both floras.

The flora of kurgans in the grass steppe was, in many respects, richer than the flora of the desert steppe. It contained a higher number of species and contribution of steppe and protected species (a reverse tendency was observed in the case of synanthropes). These differences corresponded to differences existing between different climate-vegetation zones.

It is recognised that the desert steppe is the floristically poorest zone. Moving further north the flora becomes richer and more varied. The degree of synanthropization of the flora, assessed on the basis of the proportion of anthropophytes or synanthropes, is smaller in the case of the desert steppe, which is associated with the influence of the less anthropogenically changed area surrounding the kurgans. In the above zone kurgans are located among steppes which are extensively used mainly for pasturage, and are overgrown with steppe and halophyte communities.

The results obtained in the present study indicated the important role of kurgan flora in the local restoration of steppes. Therefore it is necessary to introduce changes in the concept of protection of kurgans and bring about changes in the attitude of archaeologists, government officials and local people towards these burial sites (mounds). Not only should the content of kurgans be protected, but also the vegetation cover on the barrows. An analysis of the contribution of rare, non-synanthropic and steppe species to the kurgan flora enabled the identification of the most valuable barrows which should be subject to protection, not only as archaeological sites but also as nature monuments. These are kurgans: P2, P10, P16, P19, P20, P22, P24 i P25.

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APPENDIX 1. Flora of the kurgans in desert steppe zone and their microhabitats

Abbreviations applied in Table A:

Microhabitats:

T – the top of the barrow;
Ss – the southern slopes;
Sn – the northern slopes;
Bs – the southern foot;
Bn – the northern foot.

Data regarding the occurrence of species in particular microhabitats are presented in the following order:

T	
Ss	**Sn**
Bs	**Bn**

Life forms:

t – therophytes;
th – short-living perennials (2,3,4 years old);
g – geophytes;
w – hydrophytes;
h – hemicryptophytes;
hg – geophytes-hemicryptophytes – perennials, some of whose perennating buds (shoot system) remain on the soil surface and underground;
hc – hemicryptophytes-chamaephytes – perennials whose perennating buds remain on or above (within 0.25 m) the soil surface;
c – chamaephytes;
mf – megaphanerophytes;
nf – nanophanerophytes;

Syntaxa:

Agro int-rep – Agropyretea intermedio-repentis (Oberd. et al. 1967) Müller et Görs 1969)
Alth offi – Althaetalia officinalis V. Golub et Mirkin in V. Golub 1995 {*Molinio-Arrhenatheretea* T. Tx 1937}
Ammoph – Ammophiletea Br.-Bl. et R.Tx. 1943
Artemi – Artemisietea Lohm., Prsg et R. Tx. in R. Tx. 1950
Bident – Bidentetea R.Tx., Lohm. et Prsg. 1950
Caki mari – Cakiletea maritimae R. Tx. et Prsg. 1950
Cryp acul – Crypsietea aculeatae Vicherek 1973
Crit-Stat – Crithmo-Staticetea Br.-Bl. 1947
Cryp acul – Crypsietea aculeatae Vicherek 1973
Fest vagi – Festucetea vaginatae Soó 1968 em. Vicherek 1972 or *Festucetalia vaginatae* Soó{*Festuco-Brometea* Br.-Bl. et R. Tx. 1943}
Fest-Brom – Festuco-Brometea Br.-Bl. et R. Tx. 1943
Fest-Pucc – Festuco-Puccinellietea Soó (incl. *Festuco-Limonietea* Karpov et Mirkin 1985)
Gali-Urti – Galio-Urticetea Passarge 1967 or *Galio-Urticenea* (Passarge 1967) {*Artemisietea* Lohm., Prsg. Et R. Tx. in R. Tx. 1950}
Gali veri – Galietalia veri Mirkin et Naumova 1986 {*Molinio-Arrhenatheretea* T. Tx. 1937}
Isoe-Nano – Isoëto-Nanojuncetea Br.-Bl. et R. Tx. 1943
Moli-Arrh – Molinio-Arrhenatheretea R. Tx. 1937
Neri-Tama – Nerio-Tamaricetea Br.-Bl. et Bolos 1957
Planta – Plantaginetea majoris T. Tx. et Prsg. 1950 *or Plantaginetalia majoris* R. Tx. (1943) 1950 {*Molinio-Arrhenatheretea* R. Tx. 1937}
Poly-Arte – Polygono-Artemisietea austriacae Mirkin, Sakhapov et Solomeshch in Mirkin et al. 1986

Prunet – Prunetalia {*Querco-Fagetea* Br.-Bl. et Vlieg. 1937or *Rhamno-Prunetea* Rivas, Goday et Garb. 1961}
Quer pub-pe – Quercetea robori-petraeae Br.-Bl. et R. Tx. 1943
Quer_Fage – Querco-Fagetea Br.-Bl. et Vlieg. 1937
Rham-Prun – Rhamno-Prunetea Rivas, Goday et Garb. 1961}
Robin – Robinietea Jurko ex Hadac et Sofron 1980
Sali purp – Salicetea purpureae Moor 1958
Sedo-Scle – Sedo-Scleranthetea Br.-Bl. 1955
Stel medi – Stellarietea mediae T. Tx. , Lohm., et Prsg. 1950 (incl. *Chenopodietea* Br.-Bl. 1952 em. Lohm., J. et R. Tx. 1961 ex Matuszk.1962 & *Secalietea* Br.-Bl. 1951)
Ther-Brac – Thero-Brachypodietea Br.-Bl. 1947
Trif-Gera – Trifolio-Geranietea sanguinnei Th. Müller 1962
Urti-Samb – Urtico-Sambucetea Doing1962 em. Pass.1968

[ ] – indicates that the introduced species were established in the particular plant community types (see Table);
{ } – indicates that the syntaxon belongs to a given class (see above list of syntaxa abbreviations).

Historical-geographical classification of species:

Native species:
Ns – native species, not established in anthropogenic habitats;
Ap – apophytes, natives established in anthropogenic habitats;
He – hemiapophytes, natives established only in semi-natural habitats;
Ae – oekiophytes, natives grown (e.g. in plantations or in windbreaks) and recorded in anthropogenic habitats.

Aliens:
Ar – archaeophytes, aliens that immigrated before the year 1500;
Ke – kenophytes, aliens introduced after the year 1500;
Eg – ergasiophygophytes, cultivated plants not established in the new territory, appearing only temporarily.

Origin of alien species – groups and abbreviations:

- Mediterr (= Mediterranean), sub-Mediterr (= sub-Mediterranean);
- European, Atlantic, sub-Atlantic;
- Eurasian, Eurosiberian, boreal-Eurasian, continent. (= continental) , subcontinent (= subcontinental);
- W-Asian (=Western-Asian), Middle-Asian, C-Asian (=Central Asian), Irano-Turanian, Indian, Malay;
- African,
- North American, Central American, South American.

Status of the protected species:

* – World Red List
** – European Red List
*** – Red Data Book of Ukraine
**** – Red List of Kherson Region

At the bottom of the Table the flora of each kurgan is described taking into account:

- the number of species;
- the number of species in all of its microhabitats.

Species	Species distribution on the kurgans (P 1-26) and abundance in each of the five microhabitats (T, Ss, Sn, Bs, Bn) studied																											The total number of occurrence records of species in the particular microhabitats on all of the kurgans studied	The total abundance of species in the particular microhabitats on all of the kurgans studied	The number of kurgans where species were recorded	The total number of occurrence records of species in all microhabitats on all of the kurgans studied	The total abundance of species in all microhabitats on all of the kurgans studied	Status of species	Origin of anthropo-phytes	Life form	Socio-ecological group
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Achillea leptophylla M.Bieb.	1 2 2	2 2	1 - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	1 1 2	1 2 -	- - -	- - -	- - -	- - -	2 5 2	3 3	6 4	4 5	6	15	21	*Ns*		h	Fest-Brom
Achillea nobilis L.	1 2 1	1 2 -	- - -	2 2 2	2 2 2	- - -	- - -	- - -	- - -	- 1 -	1 1 2	2 1 -	2 2 2	- - -	- - -	- - -	- - -	- - -	1 1 2	1 2 -	- - -	1 2 2	- 1 -	1 1 1	1 1 -	1 2 2	4 7 12	9 8	5 11 17	12 15	13	40	60	*Ns*		h	Fest-Brom, Artemi
Achillea pannonica Scheele	- - -	1 2 -	2 2 -	- 1 -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	2 2 -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- - -	1 1 -	1 1 -	- - -	2 4	3 6	2 5	4 9	10	15	20	*Ns*		h	Fest-Brom, Artemi
Achillea setacea Waldst. & Kit.	- - -	- - 2	- - 1	- 1 -	- 1 -	- - -	- - -	1 1 -	- - -	1 2 1	- - -	1 1 3	1 1 2	- - -	1 2 2	1 2 2	- - -	- - -	- - -	- - -	1 2 1	- 1 -	- - -	1 1 2	2 2 2	- - -	2 5 9	2 8 11	2 5 15	2 10 19	14	35	51	*Ha*		hg	Fest-Brom, Poly-Arte, Gali veri
Achillea stepposa Klokov & Krytzka	- - -	- - 2	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- 2 2	- - -	- - -	- - -	- - -	- - -	- - -	- 2 -	- - -	- 1 2	1 2 2	- - -	- 2	2 7	- 4	2 12	7	11	18	*Ns*		hg	Fest-Brom
Achillea × lepto-phylloides Tzvelev	- - -	- - 1	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1	- 1	- 1	- 1	1	2	2	*Ns*		h	Fest-Brom
Aegilops cylindrica Host	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- 1	- -	- 1	- -	1	1	1	*Ha*		t	Fest-Brom, Stel medi
Ajuga chia Schreb.	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1	1 1	1 1	1 1	2	3	3	*Ha*		h,c	Fest-Brom, Stel medi
Agrimonia eupatoria L.	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 2	- 2	- 2	- -	2	2	2	*Ns*		h	Gali veri, Fest-Brom, Trif-Gera
Agropyron pectinatum (M.Bieb.) P.Beauv.	3 3 2	1 2 1	2 2 2	2 3 -	3 1 1	3 3 2	2 2 1	2 2 2	2 2 2	2 1 -	3 2 2	2 2 -	3 2 1	1 1 -	3 3 2	3 1 2	2 2 1	2 1 -	2 2 1	2 2 1	3 2 1	3 1 2	3 2 2	3 2 2	3 2 2	2 2 -	3 2 1	2 1 1	3 2 1	26 26 12	26 16	56 21	64 49 23	26	106	213	*Ha*		h	Poly-Arte, Fest-Brom, Fest vagi
x ***Agrotrigia kotovii*** Tzvelev	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1	- -	- 1	- -	1	1	1	*Ns*		hg	Fest-Brom, Agro int-rep?
Allium guttatum Steven	- - -	- - -	- - -	- 1 1	- - -	- - -	1 2 1	1 1 -	1 2 -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- 2 1	1 1 -	- - -	1 1 2	- 1 2	- 2 2	2 - 2	1 2 -	6 8 2	10 1	6 10 2	17 1	11	27	36	*Ns*		g	Fest-Brom, Fest vagi
Allium inaequale Janka	- - -	- - -	- - -	- 1 1	1 2 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	1 - -	- - -	2 3 1	2 1	2 4 1	3 1	5	9	11	*Ns*		g	Fest-Brom
Allium paczoskianum Tuzs.	1 1 -	- - -	- 1 -	- - -	- - -	2 1 2	- - -	- - -	- - -	1 1 -	- - -	2 1 1	1 1 -	1 2 -	- - -	- - -	- - -	1 1 -	1 1 -	- - -	- 1 -	1 1 -	- - -	- - -	- - -	- - -	2 7 4	6 4	2 9 4	8 5	10	23	28	*Ns*		g	Fest-Brom

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Allium paniculatum L.	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 2 1	1 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 2 1	2 2 1	- - -	1 - 1	3 4 3	3 5 3	7	19	23	*Ns*		g	Fest-Brom
Allium rotundum L. aggr.	- - -	1 2 2	1 2 2	- - -	- - -	- 1 -	- - -	- - -	- - -	1 2 1	- 1 1	- - 1	- - -	- - -	- - -	- - -	- 1 2	- - -	- - -	- - -	2 3 1	- 1 1	- - -	- - -	- - -	- - -	3 6 6	4 10 7 5 5	7	23	31	*Ns*		g	Fest-Brom, Gali veri
Alyssum desertorum Stapf	1 1 -	- 2 -	1 2 1	2 1 -	- 1 2	2 1 1	1 - -	- - -	- - -	1 2 1	- - -	2 2 1	- - -	1 1 1	- - -	2 2 1	- 1 1	1 2 2	- 1 1	- - -	1 - -	- 1 -	- - -	- - -	1 - 1	- 2 1	12 19 6	16 26 8 9 2	20	48	61	*Ha*		t	Fest-Brom, Fest vagi, Poly-Arte, Stel medi
Amaranthus albus L.	1 - 1	- - -	- - -	- - -	- - -	2 1 -	- - -	2 2 1	1 - -	- - -	- - -	- - -	1 2 1	1 1 1	- - -	- - -	- - -	1 - -	1 - 1	1 - -	- 1 -	1 - -	- - -	- - -	- - -	- - -	9 4 6	1 11 6 7 5	11	25	30	*Ke*	North American	t	Stel medi
Amaranthus blitoides S.Watson	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - 3	3	3	3	*Ke*	South American	t	Stel medi
Amaranthus powellii S.Watson	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - 1	1	2	2	*Ke*	American	t	Stel medi
Amaranthus retroflexus L.	- - -	- - -	1 2 1	1 1 -	1 - -	1 1 -	- - 1	1 1 1	- - -	1 - 1	- 1 2	- - -	- 2 2	1 1 1	1 1 1	2 - -	2 2 2	- 2 2	- 2 2	- 2 2	- 2 1	1 - 2	1 1 1	- - -	- - -	- - -	11 7 11	13 7 16 4 15	18	42	55	*Ke*	North & Central American	t	Stel medi
Ambrosia artemisiifolia L.	- - -	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 1	- 1 1	- 2 1	- 1 1	- - -	- - -	- - -	- - -	- 1 1	- 1 5 6	- 1 6 - 6	7	12	13	*Ke*	North American	t	Stel medi
Amorpha fruticosa L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	1	1	1	*Ke*	North American	nf	Robin, [Sali purp], [Neri-Tama]
Amygdalus nana L.	- - -	- - 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	1	1	2	*Ns (****)*		nf	Fest-Brom
Anchusa officinalis L.	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	2 2 1	2 2 1 - 1	2	4	4	*Ar*	Mediterr	h	Artemi
Androsace elongata L.	- - -	- - -	1 1 -	- - -	- - -	- 1 -	- - -	- - -	- - -	- - 1	- 1 -	1 - -	- - -	- 2 -	1 - -	1 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	3 3 1 2	3 4 1 3 2	6	12	13	*Ns*		t	Fest-Brom, Stel medi
Androsace maxima L. spp. ***turczaninovii*** (Freyn) Fed.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - - - -	1	1	1	*Ns*		t	Fest-Brom, Stel medi
Anisantha tectorum (L.) Nevski	- 1 -	3 1 1	2 2 1	- - -	2 - 1	1 2 1	2 1 2	1 - 2	1 1 -	2 - -	- - -	1 2 1	- - -	3 3 2	3 2 2	3 2 2	2 - 2	- - 1	1 - 2	- 1 2	1 - 1	- - -	- - 2	- - 2	2 - 1	- 1 2	16 11 19	30 18 8 29 10 27	24	72	114	*Ar*	Mediterr-Irano-Turanian	t	Stel medi, Poly-Arte, Gali veri, Robini
Anthemis ruthenica M.Bieb.	2 2 2	2 2 1	- 1 2	2 2 1	2 2 -	- 1 1	- 1 2	2 1 1	- - -	1 1 -	1 1 2	2 2 1	1 1 1	1 2 2	2 1 2	2 2 2	2 1 2	2 2 1	2 1 1	1 1 1	- 1 1	1 1 2	- - -	1 - -	- - -	2 2 1	17 19 18 14	27 32 28 15 18	22	82	120	*Ap*		t	Fest vagi, Stel medi
Anthriscus cerefolium (L.) Hoffm.	- - -	1 - 1	- - -	1 1 2	- - -	- - -	- - -	1 - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	1 - -	- - -	- - -	1 2	4 1 4 2 5	7	11	12	*Ap*		t	Robin
Arabidopsis thaliana (L.) Heynh.	- 3 -	3 - -	- - -	- - -	- - -	1 - 1	- - -	1 1 -	- - -	- - 2	- - -	1 2 2	- - -	- - 1	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	2 3 4	2 6 5 6 9 4 5	8	18	28	*Ke*	sub-Mediterr-Eur-asiatic-(sub-Atlantic)	t	Stel medi
Arctium minus (Hill) Bernh	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - 1	- - 1	1	1	1	*Ap*		h	Artemi
Arenaria uralensis Pall. ex Spreng.	- 1 1	- - -	1 1 1	1 2 1	2 1 -	- 1 -	2 2 2	- - -	- - -	- 2 1	1 1 1	1 2 2	- - 1	- 1 2	- 2 -	2 3 1	2 2 1	- - -	- 1 1	- - -	1 2 -	- - -	- - -	- - -	- - -	- - -	6 11 9	8 19 15 14 20 8 9	17	49	70	*Ha*		t	Fest-Brom, Poly-Arte
Armeniaca vulgaris Lam.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 2	- - 2	2	2	2	*Ke*	W-Asiatic	mf	Robin
Artemisia absinthium L.	- - -	1 2 2	1 1 1	- - -	1 1 -	- 1 -	- - -	- 2 1	- 1 1	- 1 -	- - -	- 1 1	- - -	- - -	1 1 2	- - -	- - -	- - -	- - -	- - -	- - -	- 1 1	1 2 2	- 2 2	1 2 2	- - -	3 1 11	3 5 15 14 19	15	34	43	*Ar*	Irano-Turanian	c	Poly-Arte, Agro int-rep, Artemi
Artemisia austriaca Jacq.	1 2 2	2 3 2	2 3 2	2 3 2	2 2 2	2 2 2	2 2 2	2 3 2	2 3 2	2 2 1	- 2 1	2 2 1	2 2 1	2 3 1	3 2 2	3 2 2	2 1 2	2 2 3	2 3 3	2 3 2	2 2 2	2 3 2	2 3 2	2 2 2	2 2 2	2 3 1	2 1 2	24 26 25	48 26 55 24 47 62 42	26	125	254	*Ha*		c	Fest-Brom, Fest-Pucc, Poly-Arte, Fest vagi, Agro int-rep

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Artemisia marscha-lliana Spreng.	- -	- 1 1	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1 1	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 -	- -	- 1 2	- 2 1	3	6	6	*Ns*		c	Fest vagi
Artemisia pontica L.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1 1	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1	- 1	- 1	1	2	2	*Ns*		h	Gali veri
Artemisia scoparia Waldst. et Kit.	- 2 -	1 -	- -	- -	- -	- -	- -	- -	1 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 1	2 -	1 1	2	3	4	*Ap*		th	Artemi
Artemisia cfr***. taurica*** Willd**.**	- 1 -	1 1 -	1 1 -	- -	- -	2 1 -	- -	- 1 -	- -	- -	- -	- -	- -	- -	- -	- -	1 1 2	- -	1 -	- -	- 1 -	- -	- -	- -	- -	- -	1 5 5	2 2	1 6 5	2 3	8	15	17	*Ns*		c	Fest-Pucc, Fest-Brom
Artemisia vulgaris L.	- - 2	- 1 -	- -	- -	- -	- -	- -	- -	- -	- 1 1	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 -	- -	- -	- 3	- 2	- 3	- 3	4	5	6	*Ap*		hc	Artemi
Asparagus officinalis L. aggr.	- -	- -	- -	- 1 1	- -	2 1 -	- -	1 1 1	1 1 -	- -	- -	- -	- -	- -	- 1 -	- -	- -	- -	- -	- -	- 1 -	- -	- -	- -	- -	3 4	- 5	4 4	- 5	7	12	13	*Ns*		g	Gali veri, Fest-Brom
Asperugo procumbens L.	- -	- -	1 -	- -	- -	1 -	- -	- -	- -	- 1	- -	- -	- -	- -	1 1 -	- 1 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	3 2	- 2	3 - 2	- 2	5	7	7	*Ap*		t	Artemi
Asperula cynanchica L.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 2 1	- -	- -	- -	- -	1 -	1 -	2 1	1	3	4	*Ns*		h	Fest-Brom
Astragalus asper Jacq.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 2 1	- -	- 1 -	- -	1 1 -	- -	- -	2 -	2 3 1	4 1	3	6	7	*Ns*		h	Fest-Brom
Astragalus borysthe-nicus Klokov	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1	- 1	- 2	1	2	3	*Ns (**)*		h	Fest vagi
Astragalus corniculatus M.Bieb.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 -	- -	- -	- -	- -	- -	- 1	- 1	1	1	1	*Ns*		h	Fest-Brom
Artragalus dasyanthus Pall.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 -	- -	- -	- -	- -	- 1	- 1	1	1	1	*Ns (*)*		h	Fest-Brom
Astragalus onobrychis L.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 1 -	- -	1 1 -	- -	- -	- -	- -	- -	1 1	1 1	2 1	2	5	5	*Ns*		h	Fest-Brom
Astragalus pallescens M.Bieb.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1 -	- 1 -	1	1	1	*Ns (*)*		hc	Fest-Brom
Astragalus cfr. varius S.G.Gmel.	- -	- -	- -	- -	- -	- -	1 1 -	- -	2 2	1 -	- -	- -	- -	- -	- -	- -	- -	- -	1 1 -	- -	1 2 1	- -	2 1 -	1 1 1	2 1 -	- -	6 4	5 2	8 6	6 2	6	17	22	*Ns*		hc	Fest vagi
Atriplex oblongifolia Waldst. & Kit.	- 1 -	- -	1 2 1	- 1 -	- -	1 1 1	- 1 -	- -	- -	1 1 -	- -	- -	- -	1 -	2 1 1	1 1 -	- -	- -	- -	- -	- -	- -	- -	- 1 -	1 1 -	- -	7 5 8	2 1	8 6 8	2 1	11	23	25	*Ha*		t	Poly-Arte, Stel medi
Atriplex sagittata Borkh.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1 -	- 1 -	1	1	1	*Ar*	Irano-Turanian	t	Stel medi, Artemi
Atriplex tatarica L.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 1 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 -	- 1	1 -	1	2	2	*Ke*	Irano-Turanian-C-Asiatic	t	Stel medi, [Poly-Arte], [Fest-Pucc]
Ballota nigra L.	- -	- 1 -	- -	- -	- -	1 -	- 1 -	- -	- -	- 1 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- 1 -	- -	- -	- -	2 2 -	1 2 -	- -	1 1	1 6	1 2	1 8	7	10	13	*Ar*	Mediterr	hc	Artemi, Gali-Urti, Robin
Bassia sedoides (Pall.) Asch.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 -	- -	- -	- -	2 2 -	2 2 -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	2 - 2	1 1	4 - 3	2 2	3	6	11	*Ha*		t	Poly-Arte
Berteroa incana (L.) DC.	- - 1	- 2 2	1 2 -	- -	- -	- -	- - 1	- -	- -	- -	- 1 1	- -	- -	- -	- 2 -	- -	- 1 -	- -	- -	- -	- -	- 2 1	1 - 2	- 1 2	1 2 2	- -	2 2 7	3 9	2 12	2 3 13	10	23	32	*Ap*		th	Artemi, Poly-Arte
Brassica napus L.	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	1 -	- -	- -	- -	- -	- -	- -	- -	- -	- 1	- 1	-	1	1	1	*Eg*	E-European?, anthropog?	t	Stel medi
Bromopsis inermis (Leyss.) Holub	- -	- - 2	- -	- -	- -	1 2	2 2 -	- -	- -	1 2	1 -	- 1 -	- -	- -	- -	- -	- 1 1	- -	- -	- -	- -	- -	- -	- -	- 1 3	1 4	2 6	1 5	3 11	7	13	20	*Ha*		hg	Gali veri, Moli-Arrh, Fest-Brom, Agro int-rep

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Bromopsis riparia (Rehmann) Holub	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 1	2 2 2	2 - -	- - -	2 - -	2 2 2	- - -	- - -	- - -	- - -	5 3 9 5	5	8	14	*Ns*		g	Fest-Brom
Bromus hordeaceus L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	1 - -	1 - -	1	1	1	*Ap*		t	Moli-Arrh, Fest vagi
Bromus japonicus Thunb**.**	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- 1 1	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	3 3	3 3	5	6	6	*Ha*		t	Stel medi, Fest vagi
Bromus squarrosus L.	- - -	- - -	- - -	- - -	- - -	- - -	1 - 1	- - -	1 - -	- 1 -	- - -	- - -	- - -	1 1 1	- - 3	1 - 1	1 - 1	- - -	- - -	- - -	- - -	1 - -	- - -	1 - -	- - -	- - -	1 3 4	1 3 4	9	14	16	*Ar?*	Mediterr-continent-Eurasiatic	t	Poly-Arte, [Fest-Brom], Fest vagi, Stel medi, Agro int-rep
Buglossoides arvensis (L.) I.M.Johnst.	2 2 1	- - -	1 2 1	- - -	1 1 -	1 1 1	- - -	1 1 -	- - 1	1 1 -	- - -	1 2 1	- - -	- - 1	- - 2	- - 1	1 2 1	1 2 1	- - 1	2 1 1	1 2 -	- - 1	- - -	1 - -	- - -	- - -	8 10 18	7 14	10 14 22	7 17	22	57	70	*Ar*	Mediterr-Irano-Turanian	t	Stel medi, [Poly-Artemi]
Camelina microcarpa Andrz.	1 1 -	1 2 2	1 1 -	- - 1	- - -	- - -	1 - -	- - 1	- - -	1 1 -	- - -	- 1 1	1 1 -	- 1 1	- - -	1 - -	1 1 -	1 1 1	1 - 1	- 1 2	- 1 1	1 1 1	- - -	- - -	- - -	- - -	6 8 11	6 8 9	6 9 13	6 8 10	18	42	46	*Ar?*	Mediterr-Turanian	th	Stel medi, [Poly-Artemi]
Camelina rumelica Velen.	- - -	- - -	- - -	1 - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - 1	1 - -	- - -	1 - -	- - -	1 - -	- - -	- - -	1 - -	- - -	3 2	1 2	1 3 2	1 2	8	9	9	*Ke*	Mediterr-Irano-Turanian	t	Stel medi
Campanula bononiensis L.	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - 1	1	1	1	*Ns*		h	Fest-Brom, Trif-Gera
Cannabis sativa L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 2	1 2 1	1 - 1	- 1 2	1 5 10	1 7 13	12	17	22	*Ke*	E-Asiatic	t	Stel medi, Artemi, [Fest vagi]
Capsella bursa-pastoris (L.) Medik.	- - -	- 2 1	- - -	1 1 2	1 1 -	- - -	1 - -	- 2 2	- 1 -	- 1 -	1 - -	1 1 -	2 1 1	1 1 1	2 1 1	2 1 1	1 1 1	- - -	1 1 1	- - -	1 2 1	1 1 1	- - -	- - -	- - -	1 - 2	14 13 15	8 8 15	17 15 21	8 16	21	65	77	*Ar*	unknown origin	th	Stel medi, Plan majo
Cardaria draba (L.) Desv.	- - -	- 1 -	1 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	1 2 3	1 2 2	- - -	2 1 1	- - 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 5 6	2 5	1 6 10	2 7	8	19	26	*Ke*	E-Mediterr	hg	Agro int-rep
Carduus acanthoides L.	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- 2 1	2 1 1	1 -	3	4	4	*Ar*	sub-Mediterr- sub-Atlantic-European	th	Artemi, Agro int-rep, Fest-Brom
Carduus nutans L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	1 - -	1 - -	1	1	1	*Ar*	sub-Atlantic-boreal-European	th	Artemi
Carduus uncinatus M.Bieb.	1 1 1	1 1 -	- - -	2 1 1	1 1 1	1 1 1	2 2 2	2 2 1	- - -	- - -	1 1 -	- 1 1	1 1 1	1 2 -	- - 1	1 1 1	1 1 1	2 - 1	- 1 1	2 2 1	- - 2	1 2 1	- 1 1	- - -	1 2 1	1 1 1	13 18 17	15 15 13	16 28 22	16 14	21	76	96	*Ns*		th	Fest-Brom
Carex melanostachya M.Bieb.ex Willd.	- - -	- 1 3	2 3 -	- - -	- - -	- - -	- 1 2	2 - -	- - -	- - 2	3 1 -	2 1 3	- - -	- - -	- - -	- - -	- - -	1 3 3	2 3 -	- - -	- - -	- - -	- - -	1 3 -	- - -	1 3 -	3 6 8	5 8	3 12	8 21	8	22	44	*Ns*		g	Gali veri, Moli-Arrh, Fest-Brom, Alth offi
Carex praecox Schreb.	- - 2	- - 2	1 2 2	2 1 3	1 2 3	- 1 2	3 3 3	- - -	- - -	- - 2	- - 2	- - 3	- - -	- - -	- - 2	- - -	1 1 2	1 2 2	1 1 2	1 - 3	- 1 -	- 1 2	2 1 3	- - -	- - -	- - -	2 7 9	12 10 15	5 18 18	34	17	45	85	*Ha*		hg	Gali veri, Moli-Arrh, Fest-Brom, Fest vagi, Agro int-rep
Carex stenophylla Wahlenb.	- 1 -	1 - -	- - -	- - 2	2 2 -	2 1 -	- - -	- - 2	1 2 3	1 2 2	1 - -	2 2 2	2 2 2	- - -	- - 2	- - 1	- - -	2 1 2	1 2 2	1 2 2	2 3 2	1 3 2	2 2 -	2 - 1	2 2 1	1 2 2	2 - 1	6 19 11	16 4	8 38 18	27 8	19	56	99	*Ns*		g	Fest-Brom
Carex supina Willd. ex Wahlenb.	- 2 -	- 2 -	- - -	1 - -	2 2 -	- 2 -	1 2 1	2 2 -	- 1 -	1 - -	2 2 3	- - -	- 1 -	- - -	1 1 -	- 2 1	1 1 2	2 2 2	1 - -	- 2 2	2 1 -	- - -	2 - -	1 2 -	- - -	1 - -	2 12 2	3 16 3	3 20 3	28 3	20	35	57	*Ns*		hg	Fest-Brom
Centaurea diffusa Lam.	1 1 1	- 0 1	1 - -	1 1 2	- - -	1 - -	- - 1	- - -	- - -	- - -	- - -	- 1 1	1 1 1	- - -	1 1 1	- - -	1 1 1	1 - 1	- - -	1 1 1	1 - 1	- - 1	1 - 1	- - -	- - -	- - 1	2 5 9	2 5 10	2 10	2 10	13	28	29	*Ke*	E-Mediterr-continent	th	Agro int-rep, Stel med, Artemi, [Fest vagi]
Centaurea salonitana Vis.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - 1	1	1	1	*Ha*		h	Fest-Brom
Cephalaria uralensis (Murray) Schrad. ex Roem. & Schult.	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	1 - -	1	1	1	*Ns*		h	Fest-Brom
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Each cell in columns 1–28 gives: top value; upper pair; lower pair.

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culata (Crantz) Besser	- 1; - -	- -; - -	- -; - -	- -; - -	- -; - -	- -; - -	- -; - 1	- -; - -	- -; - -	- -; - -	- -; - -	- -; - -	- -; - -	- -; - -	- -; - -	- -; - -	- -; - 1	- -; - -	- -; - 1	- -; - -	- -; - -	- -; - -	- -; - -	1 -; - -	- -; - -	- -; - 1	1 1; - 4	1 1; - 4	8	9	10	*Ha*		t	
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Chenopodium strictum Roth	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; - -	-; - -; - -	1; 1 -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	1; 1 -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	1; - -; 1 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	3; 3 -; 2 4	3; 3 -; 2 4	6	12	12	*Ke*	C-Asiatic	t	Stel medi
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Chondrila juncea L.	-; - 1; 2 2	-; - -; 1 1	-; - 1; 2 2	-; 1 -; 2 1	-; 2 1; 3 2	-; - -; 1 1	-; - -; 2 2	-; - 1; 2 -	-; 1 -; 2 1	-; - -; - 2	-; - -; - 1	-; - -; - 1	-; - -; 1 1	-; - -; 1 1	1; - -; 1 -	-; - -; - -	-; - -; 1 -	-; - -; - 1	-; - 1; - -	-; - -; 1 1	-; - -; 1 1	-; - -; - 1	-; - -; 2 1	-; - -; 1 -	-; - -; 2 -	-; - -; 2 1	1; 3 5; 19 19	1; 4 5; 30 24	25	47	64	*Ha*		h	Fest vagi, Artemi
Chondrila latifolia M.Bieb.	-; - 1; - 1	-; - -; 1 2	-; - -; - 1	-; - -; 1 -	-; - -; 1 -	-; - -; 2 1	-; - -; 2 2	-; - 1; - 1	-; - -; - -	-; - 1; - 1	-; - 1; 1 -	-; - -; - 1	-; - -; 1 1	-; - -; - -	-; - 1; - -	-; - -; - -	-; - -; - 1	-; - -; 1 1	-; - 1; - 2	-; - -; - 1	-; - 1; 1 1	-; - -; 1 1	-; - -; 2 1	-; - -; 2 1	-; - 1; 1 1	-; - -; 2 1	-; - 8; 14 19	-; - 8; 19 22	23	41	49	*Ha*		h	Fest vagi, Artemi
Chorispora tenella (Pall.) DC.	-; - -; 1 -	-; - -; - -	-; 1 1; - -	-; - -; - -	-; 1 -; - -	-; - -; - -	-; 1 -; - 1	-; - -; 1 -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; 1 2	-; 1 -; 1 1	-; - -; - -	-; - -; 2 2	-; - -; 1 2	-; - -; 1 1	-; - -; 1 -	-; - -; 2 1	-; - -; 1 1	-; - -; - -	-; - -; - -	-; 4 1; 11 10	-; 4 1; 13 13	15	26	31	*Ke*	W-Asiatic	t	Stel medi
Cichorium intybus L.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - 1	1	1	1	*Ar*	Mediterr-Irano-Turanian	h	Artemi, [Poly-Arte], [Gali veri]
Cirsium arvense (L.) Scop.	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - 2	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 2	-; - -; 1 3	3	3	4	*Ap*		g	Stel medi, Artemi
Cirsium vulgare (Savi) Ten.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 3	-; - -; 1 3	3	4	4	*Ap*		th	Artemi
Cleistogenes bulgarica (Bornm.) Keng	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; 1 -	-; 1 -; 1 -	1	2	2	*Ns*		h	Fest-Brom
Consolida orientalis (J.Gay ex Gren. & Godr.) Schroed.	-; - -; - -	-; - -; 1 2	-; - 1; - 1	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - 1; 1 3	1; - 1; 1 4	4	6	7	*Ke*	Mediter	t	Stel medi
Consolida paniculata (Host) Schur	1; 1 1; 2 2	-; - -; - -	1; - -; 1 2	1; - 1; - 1	1; - -; - 1	-; - -; - -	-; - 1; - 1	1; - 1; - 2	-; - -; - -	-; 1 1; 1 2	-; 1 -; 1 1	-; 1 -; 1 1	1; 2 1; 2 1	-; 1 1; 1 2	2; 1 1; 2 1	1; 1 -; 2 1	2; 1 -; 1 1	-; 1 1; 1 1	1; 1 1; 1 1	1; - 1; 1 1	-; 1 1; 1 1	-; 1 1; 2 2	-; - -; 1 1	-; - -; 1 1	-; 1 1; 1 1	1; - -; 1 1	12; 14 14; 19 23	14; 15 14; 24 29	21	74	86	*Ap*		t	Poly-Arte, Stel medi
Convolvulus arvensis L.	-; - 1; 2 2	-; - -; 2 2	1; 2 1; 2 2	-; - -; 2 1	-; 1 1; 2 2	1; - -; 1 2	-; - -; 2 2	-; 1 1; - 1	2; 2 2; 2 2	-; 1 1; 1 2	-; - -; 1 1	-; - -; 2 2	-; 1 1; 2 -	-; 2 -; 2 2	1; 1 1; 2 2	1; 1 -; 2 2	-; 1 1; 2 2	-; 1 2; 2 2	-; 1 2; 2 1	-; - 2; 1 2	-; - -; 1 2	-; 1 1; 1 2	-; - 1; 2 2	-; - 2; 2 2	1; 2 2; 1 2	-; - -; 2 2	6; 14 16; 25 25	7; 18 22; 43 46	26	86	136	*Ap*		hg	Agro int-rep, Stel medi
Convolvulus lineatus L.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 2; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 1; - -	-; 1 2; - -	1	2	3	*Ns*		h	Fest-Brom
Conyza canadensis (L.) Cronq.	1; 1 1; 2 1	-; 1 -; 2 1	2; 2 -; 2 -	-; 1 -; 1 -	1; 1 1; - -	2; 1 1; 2 1	1; 1 -; 1 1	-; - 1; - 1	-; 1 -; - 1	1; 1 1; 1 1	-; 1 -; 1 2	1; 1 -; 1 2	1; - -; 1 1	-; 2 1; 2 1	1; 1 -; 2 -	2; - -; - -	1; 1 1; 1 2	-; - 1; 1 1	1; 1 2; 2 1	1; 1 2; 2 2	-; 1 1; 1 1	-; - -; 2 2	-; - -; - -	1; - -; 1 1	1; 1 -; 2 1	-; 1 1; 1 2	15; 19 12; 21 20	18; 21 14; 31 26	25	87	110	*Ke*	North American	th	Stel medi, [Fest vagi]
Coronilla varia L.	-; 1 -; 2 2	-; - -; - 2	-; 1 1; 2 2	-; 1 1; 2 2	-; 1 1; 2 2	-; - -; - -	-; 1 1; 2 2	-; - -; - 2	-; - -; 2 2	-; - 1; - 2	-; - -; 2 2	-; - 1; 2 2	-; 1 1; 2 2	-; - 1; 1 2	-; - 1; 2 2	-; - 1; 1 1	-; 1 1; 2 2	-; 1 1; 3 3	-; - -; 2 3	-; 1 1; 2 1	-; - -; 2 2	-; 1 2; 2 3	-; - -; - -	-; - -; 1 2	1; 1 2; 2 2	-; - -; 3 2	1; 11 15; 21 24	1; 11 17; 41 49	24	72	119	*Ha*		h	Fest-Brom, Gali veri, Fest vagi
Crataegus monogyna Jacq.	-; - -; 1 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; - 1	-; - -; 1 1	-; - -; - -	-; 1 -; 2 3	-; 1 -; 2 3	3	6	6	*Ns*		nf	Rham-Prun
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Crepis rhoeadifolia M.Bieb.	-; - -; - 1	1; 1 -; 2 2	-; 1 1; 1 -	-; 1 -; - -	1; 2 1; - 2	-; 1 1; 2 2	-; - 1; - -	-; - -; - -	-; 1 -; 1 -	-; - -; - -	-; 1 -; 1 -	1; 1 -; - 1	-; 1 -; - -	-; 1 -; 1 -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - 1; 1 1	-; - 1; 1 1	-; - -; 1 -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	3; 10 6; 10 9	3; 11 6; 12 12	18	38	44	*Ap*		t	Fest vagi, Artemi
Cuscuta approximata Bab.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - 1	1	1	1	*Ns*		t	Fest-Brom
Cuscuta campestris Yunck.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 3	-; - -; - 3	3	3	3	*Ke*	North American	t	Stel medi
Cynanchum acutum L.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							Urti-Samb, Stel medi,

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Cynoglossum officinale L.	- - - - 1	1 - - - -	1 - - - 1	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - 1 - 1	- - - 1 1	- - - 1 1	- - - - -	2 - 1 2 6	2 - 1 2 6	7	11	11	*Ar*	Eurasiatic-continent	h	Artemi
Dactylis glomerata L.	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 - - - -	1 - - - -	1	1	1	*Ap*		hg	Moli-Arrh
Descurainia sophia (L.) Webb ex Prantl	- 1 1 2 2	2 1 - 2 1	1 2 1 1 1	1 1 1 - -	1 1 1 1 -	3 3 2 3 2	1 - 1 - -	- - - - -	- - - - -	1 1 - - 1	- 1 - - -	2 1 1 2 1	1 2 - - -	1 1 - 1 1	- - 2 1 2	- - - 2 2	2 1 1 2 1	1 1 1 2 1	1 1 1 1 2	1 1 1 1 1	1 1 1 2 2	1 - 1 1 2	- - - - -	- - - - -	- - - 2 1	- - - 1 1	16 16 14 17 17	21 20 16 27 24	22	80	108	*Ar*	Irano-Turanian	t	Stel medi
Dianthus campestris M.Bieb.	- - 1 - -	- - - - -	- - - - -	- - 1 - -	- 2 2 2 2	- - - - -	- - - - -	- 2 2 2 -	- 2 2 2 1	- - 2 - 1	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- 1 2 - -	1 1 1 - -	1 1 1 - -	- - - - -	1 2 2 2 2	- - 2 - -	1 1 2 2 -	- - 2 - 1	1 - 2 1 1	- - - - -	5 8 14 6 7	5 12 24 11 9	15	40	61	*Ns*		h	Fest-Brom
Dianthus lanceolatus Steven ex Rchb.	- - - - -	- - - - -	- - - - -	1 1 2 1 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 1 1 - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	2 2 2 1 2	2 2 3 1 2	3	9	10	*Ns* (*)		h	Fest-Brom
Diplotaxis tenuifolia (L.) DC.	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - 1	1	1	1	*Ke*	sub-Mediterr-sub-Atlantic-Europ	h	Stel medi
Echinochloa crus-galli (L.) P.Beauv.	- - - - -	- - - 1 -	- 1 - - -	- - - - -	- - - - -	- 1 - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - 1 1	- - - - -	- - - 1 1	- - - - -	- - - 1 1	- - - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- 2 - 5 4	- 2 - 5 4	8	11	11	*Ar*	Meditrr-Irano-Tura-nian -Indian-Malay	t	Stel medi
Elaeagnus angustifolia L.	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - 1 - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - 1 - -	- - 1 - -	1	1	1	*Ke*	Irano-Turanian	mf	Robin, [Sali purp], [Neri-Tama]
Elytrigia intermedia (Host) Nevski	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - 1	- - - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - 1 2	- - - 1 2	3	3	3	*Ha*		hg	Fest-Brom, Gali veri, Agro int-rep
Elytrigia repens (L.) Nevski	- 1 1 3 3	- - - 2 2	3 3 2 3 3	2 1 - 2 3	- 1 1 2 3	- 1 1 3 3	- - 1 2 3	2 - 1 - 3	- - 1 2 3	1 1 1 3 3	- 1 1 2 2	2 1 2 3 3	1 1 2 3 3	2 1 1 2 3	2 1 2 3 3	2 1 1 3 3	1 1 1 3 2	3 2 3 2 2	2 2 3 3 3	- 1 3 2 3	2 1 1 3 2	2 2 2 3 3	- - 2 2 3	- - 1 2 3	- 1 2 3 3	2 - - 2 2	15 19 23 25 26	29 24 36 63 72	26	108	224	*Ap*		hg	Agro int-rep
Ephedra distachya L.	2 2 2 - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - 1 - -	- 2 - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 2 2 - -	2 4 3 - -	3	5	9	*Ns* (****)		nf	Fest-Brom, Ammoph
Eragrostis minor Host	- - - - -	- - - - -	- - - - -	- 1 - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 1 1 - -	- - - - -	- - - - -	- - - - -	- - - - -	2 - - - -	- - - - -	1 1 - - -	- - - - -	1 1 - 1 -	1 - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	5 4 1 1 -	6 4 1 1 -	6	11	12	*Ke*	Mediterr-sub-Mediterr	t	Stel medi, [Fest vagi]
Eremogone rigida (M.Bieb.) Fenzl	- - - - -	- 1 - - -	- - - - -	- - - - -	- 2 2 - -	- - - - -	- - 1 - -	- - - - -	- - - - -	- - 2 - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - 1 - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- 1 2 - -	- 1 - - -	- 4 5 - 1	- 5 8 - 1	8	10	14	*Ns* (*)		h	Fest-Brom
Erodium cicutarium (L.) L`Her.	- - - - -	- - - - -	- 1 - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 - - - -	- - - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 1 - 2 -	1 1 - 2 -	3	4	4	*Ap*		th	Fest-Brom, Stel medi,
Erodium cyconium (L.) L`Her.	- - - - -	- - - - -	- 1 - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- 1 - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- 2 - - 1	- 2 - - 1	3	3	3	*Ha*		t	Fest vagi, Stel medi
Erophila verna (L.) Besser	- - - - -	- 1 - - -	- - - - -	- 1 2 1 -	- 1 - 1 -	- - 1 - -	- 1 1 - -	- - - - -	- - - - -	1 - 2 - 1	- - - - -	- 2 1 - -	- 1 - - -	- - - - -	- - - - -	- 1 1 - -	1 1 2 - -	1 2 2 - -	- 1 - - -	- 2 2 - -	- 1 2 1 -	- - 1 - -	- - - - -	- - - - -	- - - - -	- 1 1 1 -	3 13 12 4 1	3 16 18 4 1	16	33	42	*Ha*		th	Fest-Brom, Fest vagi, Poly-Arte, Stel medi, Ther-Brac
Erucastrum armoracioides (Czern. ex Turcz.) Cruchet	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - 1 - -	- - - - -	- - - - -	- - - - -	- - 1 1 1	- - - - -	- - 2 1 2	- - 2 1 2	3	5	5	*Ha*		th	Fest-Brom, Stel medi
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Erysimum diffusum Ehrh.	- - - - -	- - - - -	- - - - -	- - - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - 1 -	- - - 1 -	1	1	1	*Ha*		h	Fest-Brom, Poly-Arte
Erysimum repandum L.	- - - - -	- - - - -	- - - - -	- - - - -	- 1 - - -	- 1 - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- 1 - - 1	- - - 1 1	- - 1 1 1	- - - 1 1	- - - - 1	- - - - -	- - - 1 -	- - 1 - 2	- - - - 1	- - - 1 2	- - - - -	- - - - -	- - - - -	- - - 1 -	- 3 2 6 8	- 3 2 6 10	12	19	21	*Ar*	Irano-Turanian	t	Stel medi
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Euphorbia humifusa Willd. ex Schlecht.	1 - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	3 - - - -	3 - - - -	3	3	3	*Ke*	E-Asiatic	t	Stel medi
Euphorbia leptocaula Boiss.	- - -	- 1 -	- - -	1 2 2	- 1 1	1 1 1	- 1 1	- - -	- - -	1 2 2	1 2 1	- - -	- 1 1	1 1 1	1 2 3	1 - 2	- 2 1	1 2 2	- - -	1 2 3	1 2 1	- 2 1	1 2 -	2 2 2	- 2 -	- 2 2	12 19 17	13 32 27	20	61	89	*Ns*		h	Fest-Brom

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Boiss.	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	3	-	-	1	-	-	2	1	2	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1	1	6	7	10	7															

Cells in columns 1–28 are given as: top value / middle left, middle right / bottom left, bottom right.

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Euphorbia seguieriana Neck.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 2 1 / 2 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 -	- / - - / - -	- / - 1 / - -	- / - - / - -	- / - 1 / 1 -	- / - - / - -	- / 1 - / 2 2	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 -	- / - - / - -	- / 5 4 / 5 1	- / 6 4 / 7 2	7	15	19	*Ns*		h	Fest vagi, Fest-Brom, Poly-Arte
Euphorbia stepposa Zoz ex Prokh.	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / 1 - / - -	1	1	1	*Ns*		h	Fest-Brom
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Falcaria vulgaris Bernh.	2 / 1 2 / 2 3	1 / 2 2 / 2 2	1 / 1 1 / 2 2	1 / 2 1 / 2 2	- / 1 - / - -	1 / 1 1 / 2 2	- / 2 1 / 3 2	- / 2 1 / 2 2	1 / 2 - / 2 -	- / 1 1 / 2 2	- / 1 - / 2 2	1 / 1 2 / 2 2	- / 2 1 / 2 2	1 / - 1 / 1 1	2 / - 2 / 2 2	- / - - / - -	- / 2 1 / 2 2	- / 1 1 / 2 2	2 / 2 2 / 1 1	1 / 1 2 / 2 2	1 / 2 2 / 2 2	1 / - 1 / 2 2	1 / 1 2 / 2 2	1 / 2 2 / 1 2	- / - - / - -	1 / 2 2 / 2 3	16 / 21 21 / 23 22	19 / 32 31 / 44 44	24	103	170	*Ha*		h	Fest-Brom, Fest vagi, Gali veri, Agro int-rep
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Festuca valesiaca Gaudin	2 / 3 3 / 2 2	2 / 2 3 / 2 2	- / - 1 / - -	1 / 3 3 / - 2	2 / 3 3 / 2 2	2 / 3 3 / 2 2	2 / 3 3 / 2 2	2 / 3 3 / 2 1	- / 2 3 / - 2	1 / 2 3 / 2 2	3 / 3 3 / - -	- / 2 2 / 2 -	- / 2 2 / - -	- / 1 2 / 1 -	1 / 2 3 / 1 2	- / - - / - -	1 / 3 3 / 2 2	2 / 3 3 / - 1	2 / 3 3 / 1 1	2 / 3 3 / 3 2	- / 2 3 / 2 2	- / 3 3 / 3 3	2 / 3 3 / 3 2	2 / 2 3 / 2 1	3 / 3 3 / 2 1	2 / 3 3 / 2 2	18 / 24 25 / 19 20	34 / 62 70 / 38 36	25	106	240	*Ns*		h	Fest-Brom, Poly-Arte, Gali veri
Ficaria calthifolia Rchb.	- / - - / - -	- / - 1 / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - 2	- / - 1 / - 3	2	3	4	*Ns*		gh	Urti-Samb, Rham-Prun
Filago arvensis L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 3 1	- / 1 - / 3 1	3	4	5	*Ha*		th	Fest-Brom, Poly-Arte
Gagea bohemica (Zaus-chn.) Schult. & Schult.f.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 2 1 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / - -	- / 2 1 / - -	1	2	3	*Ns*		g	Fest-Brom
Gagea bulbifera (Pall.) Salisb.	- / - 1 / - -	- / 1 1 / - -	- / - - / - -	- / 1 1 / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / - -	- / 1 2 / - -	- / - - / - -	- / 2 2 / - -	- / 1 - / - -	- / - - / - -	- / 1 1 / - -	- / 2 - / - -	- / - - / - -	- / 10 7 / - -	- / 12 9 / - -	11	17	21	*Ns*		g	Fest-Brom
Gagea erubescens (Bes-ser) Schult. & Schult.f.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	- / - - / - -	- / 1 - / - -	- / 1 - / 1 4	- / 1 - / 1 4	6	6	6	*Ns*		g	Fest-Brom, Gali veri
Gagea paczoskii (Zapał.) Grossh	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / 1 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / 2 2	- / 1 1 / 2 2	2	6	6	*Ns*		g	Fest-Brom, Gali veri
Gagea pusilla (F.W.Sch-midt) Schult. & Schult.f.	- / 2 2 / - 1	- / - 1 / - -	- / 1 - / - -	- / 2 - / - -	1 / 1 2 / - -	- / - - / - -	- / 1 1 / - 1	1 / - - / - -	- / - - / - -	- / - 1 / - -	- / - - / - -	1 / 1 2 / - 1	- / - 2 / - -	- / - - / - -	- / - - / - -	- / 1 1 / - 1	- / 1 - / 1 -	- / - 1 / - -	- / 1 1 / - -	- / - 2 / - 1	- / - 2 / - 1	- / - 2 / - -	- / - 1 / - -	- / - - / - -	- / - 1 / - -	- / - 1 / - 1	3 / 9 16 / 1 7	3 / 11 23 / 1 7	20	36	45	*Ns*		g	Fest-Brom, Poly-Arte
Galatella villosa (L.) Rchb.f.	- / - - / - -	- / - - / - -	- / - 1 / 2 -	- / 3 3 / 2 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 2 / 2 2	- / 3 4 / 4 3	3	7	14	*Ns*		h	Fest-Brom
Galium aparine L.	- / - - / - -	- / - - / - 1	2 / 1 - / - -	- / - - / - -	- / 1 - / - -	1 / 1 1 / 2 2	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / - - / - -	- / - - / - -	- / - 1 / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	3 / 4 2 / 3 5	4 / 4 2 / 5 6	9	17	21	*Ap*		t	Gali-Urti, Robin
Galium humifusum M.Bieb.	- / - 1 / - 2	- / - - / 2 2	- / - 1 / 2 2	- / - - / 1 1	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	- / - - / - 1	- / - 1 / - 2	- / - - / 1 1	- / 1 - / - 1	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 2	- / - - / 1 2	- / - 1 / - -	- / - 1 / 2 2	- / 1 1 / 1 2	- / - - / - 1	- / - - / 1 1	- / - 1 / 2 2	- / - - / - 1	- / 2 7 / 9 21	- / 2 7 / 13 30	22	39	52	*Ha*		h	Gali veri, Artemi, Fest-Brom
Galium ruthenicum Willd.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 2 - / - -	- / - - / - -	- / 2 - / 2 2	- / 3 - / 2 4	3	6	9	*Ns*		h	Fest-Brom
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Galium verum L.	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 2	- / - 1 / - -	- / - - / - -	- / - - / - -	- / - 1 / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 2 / 2 4	- / - 2 / 2 7	5	8	11	*Ns*		h	Gali veri
Galium volhynicum Pobed.	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / 1 1	- / - - / 1 1	2	2	2	*Ns* (**)		hg	Fest-Brom
Geranium divaricatum Ehrh.	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	1	1	1	*Ns*		t	Rham-Prun, Robin, Fest-Brom?

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Geranium cfr. ***collinum*** Stephan	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - 1	1	1	1	*Ns*		hg	Moli-Arrh
Geranium pusillum L.	-; - -; - -	-; - -; - 1	-; 1 -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; 2 5	-; 1 -; 2 5	6	8	8	*Ar*	Irano-Turanian	th	Stel medi
Glaucium cornicu-latum (L.) J.Rudolph	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; 1 -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 2 -; - 3	-; 2 -; - 3	5	5	5	*Ap*		t	Fest-Brom, Stel medi
Gleditsia triacanthos L.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; 1 1	2	2	2	*Ke*	North American	mf	Robin
Goniolimon besseria-num (Schult.) Kusn.	1; 1 1; 1 1	-; - -; - -	-; - -; - -	1; 1 1; 1 -	-; - -; - -	-; - -; - -	1; 1 -; - -	-; - -; - -	-; - -; - -	-; 2 1; 2 1	-; 1 1; 1 -	1; 1 1; - 1	-; - -; - -	-; - 1; - -	-; - -; - -	-; - -; - -	1; 1 2; 1 2	2; 2 1; 2 2	2; 2 2; 1 -	1; 2 1; 2 2	1; 2 1; 1 1	1; 2 2; 1 2	-; 1 -; 1 -	-; 1 -; 1 -	-; - -; - -	1; 2 1; 2 -	11; 15 13; 13 8	13; 22 16; 17 12	16	60	80	*Ns*		h	Fest-Brom
Goniolimon tataricum (L.) Boiss.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - 1; 1 -	-; - -; - -	-; - -; - -	-; 1 1; - -	-; 2 1; - -	-; 1 1; - -	-; 2 -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	1; 5 4; 1 1	1; 7 4; 1 1	7	12	14	*Ns*		h	Fest-Brom
Gypsophila paniculata L.	-; - -; - -	-; 1 1; 2 2	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - 1; 1 2	1; 1 1; 2 2	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	1; 2 3; 4 5	1; 2 3; 6 8	5	15	20	*Ns*		h	Fest vagi, Sedo-Scle
Helianthus annuus L.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	1; - -; 1 -	-; - -; 1 -	-; - -; - -	-; - -; 1 1	-; - -; 1 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - -; 5 2	1; - -; 5 2	5	8	8	*Eg*	North American	t	Stel medi
Helichrysum arena-rium (L.) Moench	-; - -; - -	-; 1 -; - -	-; - -; - -	-; - -; 1 -	-; - 1; 2 -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - 1; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - 1; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 3; 2 2	-; 1 3; 3 2	7	8	9	*Ns*		h	Fest vagi, Fest-Brom, Sedo-Scle
Heliotropium europaeum L.	-; - -; - -	-; - -; - -	-; - 1; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	1; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - 1; 1 3	1; - 1; 1 3	6	6	6	*Ap*		t	Stel medi
Herniaria besseri Fisch. ex Hornem.	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - 1; 1 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; 1 1; 1 -	-; - -; - -	-; 2 -; 1 -	-; - -; - -	-; - -; - -	-; 1 -; - -	-; 1 -; - -	-; 5 2; 5 3	-; 6 2; 5 3	8	15	16	*Ns*		c	Fest-Brom
Hibiscus trionum L.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - 1	1	1	1	*Ar*	Mediterr	t	Stel medi
Hieracium echioides Lumn.	-; - -; - -	-; - -; - -	-; - 1; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - 1; - 1	-; - 1; - 1	1	2	2	*Ns*		h	Fest-Brom, Fest vagi, Sedo-Scle
Hieracium virosum Pall**.**	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; 1 -	1	1	1	*Ns*		h	Fest-Brom
Hierochloë repens (Host) P.Beauv.	-; - 1; 2 3	-; - -; 3 2	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; 2 2	-; 1 2; 3 3	-; - -; 2 3	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 3	-; - -; - -	-; - -; 2 2	-; 1 2; 6 8	-; 1 3; 14 19	8	17	37	*Ns*		h	Gali veri
Holosteum umbellatum L.	2; 2 3; - -	2; 3 2; - -	2; 3 3; 2 1	2; 2 2; 2 2	-; 2 2; 2 1	-; - 2; 1 1	1; 3 3; - 2	2; 2 3; 2 1	1; 1 1; 1 1	2; 2 1; 2 1	-; - -; - -	2; 3 2; 3 1	-; 1 -; - -	2; 2 2; 2 1	3; 3 2; 2 3	3; 3 3; 3 2	2; 2 2; 3 2	3; 3 2; 2 2	1; 3 3; 1 1	2; 3 2; 2 1	2; 3 2; 1 1	2; 3 2; 1 -	-; - -; - -	2; 3 1; - -	-; 1 1; - -	-; 1 1; 1 1	19; 23 23; 18 18	38; 54 47; 33 25	24	101	197	*Ha*		t	Fest-Brom, Fest vagi, Poly-Arte, Stel medi,Crit-Limo
Hyacinthella leuco-phaea (K.Koch) Schur	-; - -; - -	-; 2 1; - -	-; - -; - -	-; 2 2; - -	-; 2 1; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 1; - -	-; 2 2; - -	-; - -; 2 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 1; - -	-; - -; - -	-; - -; - -	-; 2 3; 1 1	-; 1 -; - -	-; - 3; - 2	-; - 2; - 2	1; 2 -; - -	-; - -; - -	1; 9 9; 2 3	1; 15 16; 3 5	12	24	40	*Ns* (****)		g	Fest-Brom
Hylotelephium polo-nicum (Blocki) Holub	-; - -; - -	1; 2 2; 2 -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	1; 1 1; 2 1	-; - 1; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - 1; - 1	2; 3 4; 3 2	2; 4 5; 5 3	6	14	18	*Ns*		h	Fest-Brom
Hyoscyamus niger L.	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; 2 1	-; - -; - -	-; - -; - -	-; - 1; 1 1	1; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	1; - 1; 4 3	1; - 1; 5 3	6	9	10	*Ar*	Irano-Turanian	th	Stel medi, Artemi
Hypericum elegans Stephan ex Willd.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - 1; 1 1	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - 1; 4 3	-; - 1; 4 3	6	8	8	*Ns*		h	Fest-Brom, Gali veri
Hypericum perforatum L.	-; - -; 2 1	-; 1 -; 1 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; - -	-; - -; 1 1	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; 1 1	-; - -; - 2	-; - 2; 1 1	-; - 1; 2 3	-; 1 2; 7 11	-; 1 3; 9 14	11	21	27	*Ha*		h	Gali veri
Isatis campestris Steven ex DC.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - 1; 1 1	-; - -; - -	-; - 1; 2 1	-; - 1; 2 1	2	4	4	*Ha*		th	Fest-Brom, Artemi
Isatis taurica M.Bieb.	-; - 1	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - -	-; - 1	-; - 1	2	2	2	*Ns*		th	Fest-Brom

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Iris pumila L.	- / - - / - -	1 / 2 2 / 1 1	- / - - / - -	2 / 3 3 / 1 1	- / - 1 / - -	1 / 2 2 / - 1	1 / 2 2 / - -	- / - - / - -	- / - - / - -	1 / 1 2 / - 1	1 / 2 1 / 1 2	- / 1 1 / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 2 / 2 1	- / 2 2 / - 1	1 / 2 2 / 1 1	- / 2 2 / 1 -	- / 1 1 / - -	1 / 2 1 / 1 1	2 / 2 2 / 2 -	1 / 1 2 / - 1	- / - - / - -	1 / 2 1 / - 1	11 / 16 17 / 8 12	13 / 28 29 / 10 13	17	64	93	*Ns*		g	Fest-Brom
Iva xanthiifolia Nutt.	- / - 1 / - 2	- / - 1 / 2 2	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	1 / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - 1	- / - - / - -	1 / - 2 / 7 6	1 / - 2 / 8 8	11	16	19	*Ke*	North American	t	Stel medi, Artemi
Jurinea multiflora (L.) B.Fedtsch.	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 2 / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 2 -	- / - - / - -	- / 1 2 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 3 2 / 1 1	- / 3 4 / 2 2	3	7	11	*Ns*		h	Fest-Brom
Jurinea mollissima Klokov	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / 1 -	- / 1 1 / 1 -	1	3	3	*Ns*		h	Fest-Brom
Jurinea salicifolia Grun.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 2 -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / 2 -	1	1	2	*Ns*		h	Fest-Brom
Kochia prostrata (L.) Schrad.	2 / 2 2 / 2 1	1 / 2 1 / 1 -	- / 1 1 / - 1	1 / 2 2 / 2 1	- / 2 1 / 1 -	1 / 1 1 / 1 1	2 / 2 1 / 2 1	- / 2 1 / 1 -	- / 2 - / 1 -	2 / 2 1 / 1 1	1 / 2 1 / 2 -	- / 1 1 / - -	1 / - - / 1 -	2 / 2 1 / 2 -	- / - - / - -	3 / 2 1 / 1 1	2 / 2 2 / 1 1	2 / 2 1 / - -	2 / 2 1 / - -	- / 1 1 / 1 -	- / 2 1 / 1 1	2 / 2 1 / 2 -	2 / 2 1 / 1 -	2 / 2 2 / 2 1	3 / 3 1 / 1 -	2 / 2 1 / 1 1	18 / 24 23 / 21 11	33 / 45 27 / 28 11	25	97	144	*Ns*		c	Fest-Brom, Crit-Stat
Kochia scoparia (L.) Schrad.	- / - 1 / - -	- / - - / - -	- / 2 - / - -	- / 1 - / - -	- / - - / - -	- / 1 - / - -	- / - 1 / 1 1	- / - 1 / - 1	- / - - / - -	1 / 1 1 / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	2 / - - / 1 1	- / - 1 / - -	1 / - - / - 1	- / - - / 1 1	- / - - / 2 2	- / - - / 1 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	3 / 4 5 / 6 7	4 / 5 5 / 7 8	13	25	29	*Ke*	Middle-Asiatic	t	Stel medi
Koeleria cristata (L.) Pers.	1 / 3 2 / 2 1	1 / 2 2 / 2 2	- / - - / - -	2 / 2 2 / - 2	- / 3 2 / 2 1	2 / 2 2 / 2 2	- / 2 2 / 2 1	- / - 2 / - -	- / 2 2 / 1 1	1 / 2 3 / 2 2	- / 1 2 / - 1	1 / 2 2 / 2 3	- / 2 2 / - 1	- / - - / - -	1 / 2 2 / 1 1	1 / 3 2 / 2 1	- / 3 2 / 2 2	2 / 2 2 / 2 2	- / 2 2 / 1 1	2 / 2 2 / 3 2	1 / 2 2 / 2 2	2 / 2 2 / 2 2	- / - 1 / - -	1 / 1 1 / 2 1	1 / 2 2 / - 1	2 / 3 3 / 1 1	15 / 22 24 / 18 22	21 / 47 48 / 33 33	24	101	182	*Ns*		h	Fest-Brom
Lactuca saligna L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / 1 - / - -	1	1	1	*Ha*		th	Fest-Pucc
Lactuca serriola L.	1 / 1 1 / 2 1	1 / 2 - / 2 2	2 / 2 1 / 3 1	1 / 1 1 / - -	1 / - 1 / - 1	- / 1 1 / 2 2	- / 1 - / 1 1	- / - 1 / - 1	1 / 2 - / 2 1	1 / 1 1 / 1 1	- / 1 - / 2 1	2 / 2 1 / 2 2	1 / 1 1 / 1 -	- / 1 1 / 2 2	1 / 1 1 / 2 -	- / - - / - -	2 / 1 - / 1 1	- / 1 1 / 1 1	1 / 1 1 / 1 1	1 / 1 1 / 1 1	1 / 1 1 / 1 1	1 / 1 1 / 1 1	- / - - / - -	- / - - / - -	1 / 1 1 / 2 1	1 / - - / 2 1	17 / 20 17 / 20 20	20 / 24 17 / 32 24	23	94	117	*Ar*	Mediterr-Irano-Turanian	th	Artemi, Stel medi
Lactuca tatarica (L.) C.A.Mey.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	1 / - - / 1 5	1 / - - / 1 5	7	7	7	*Ap*		hg	Agro int-rep, Caki mari, Ammoph, Crit-Stat,
Lamium amplexicaule L.	1 / 1 1 / 1 1	- / 2 1 / - -	- / - - / - -	1 / 1 1 / - -	- / 1 1 / - -	1 / - - / - 1	1 / 1 1 / - -	2 / - 1 / - 2	- / - - / - -	- / 1 - / - 1	- / - - / 1 -	2 / 2 1 / 2 1	- / 1 - / - -	2 / 1 - / 1 1	2 / 2 2 / 2 2	2 / 2 1 / 2 1	2 / 2 1 / 1 1	- / 1 1 / 1 1	1 / 1 1 / - 2	- / - 1 / - 1	1 / 2 1 / 2 2	1 / - - / 2 1	- / - - / 1 1	1 / 1 - / 1 -	1 / 1 - / 1 1	1 / - - / 1 2	16 / 17 14 / 14 17	22 / 23 15 / 19 22	24	78	101	*Ar*	Mediterr-Irano-Turanian	t	Stel medi, [Poly-Arte], [Fest-Brom]
Lamium purpureum L.	- / - - / - -	- / - - / - -	1 / 1 1 / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / 1 1 / 1 1	1 / 1 1 / 2 1	1	5	6	*Ar*	NE-Mediterr	th	Stel medi, Bident
Lappula patula (Lehm.) Menyh.	- / 1 1 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / 1 - / - 1	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / 1 - / 1 -	- / - - / - -	1 / 1 - / - -	- / - - / - 1	- / - - / - -	- / - 1 / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	3 / 6 2 / 1 2	3 / 6 2 / 1 2	8	14	14	*Ke?*	Middle- & C-Asiatic	th	Stel medi, [Fest-Brom]
Lappula squarrosa (Retz.) Dumort.	- / - - / 1 1	1 / - - / - -	- / - - / - -	1 / 1 - / - -	- / - - / - -	1 / 1 1 / 1 2	- / - - / - -	- / - - / - -	1 / - - / - -	- / 1 1 / 1 1	- / - 1 / 1 -	- / - - / 1 1	1 / 1 - / - -	1 / 1 - / 1 1	1 / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / 1 2	- / - - / 1 1	- / - - / 1 1	- / - 1 / - -	- / - - / - -	1 / - 1 / 2 1	- / - - / - -	- / - - / - -	8 / 5 5 / 11 9	8 / 5 5 / 12 11	17	38	41	*Ar?*	sub-Mediterr-sub-continent-Eurasiatic	th	Stel medi, Artemi, [Fest-Brom]
Lathyrus tuberosus L.	- / - 1 / - 3	- / - - / -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / 2 2	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / 1 2	- / - - / - -	- / - 1 / 1 2	- / - 1 / 2 2	- / - - / 1 -	2 / 2 1 / 1 2	- / 1 - / 1 2	1 / 2 6 / 9 9	2 / 3 6 / 11 19	12	27	41	*Ar*	Irano-Turanian	hg	Stel medi, Gali-veri, , Agr int-rep, [Trif-Gera], [Fest-Brom]
Lavatera thuringiaca L.	- / - - / - 1	- / - - / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 2 -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	- / 1 - / 3 6	- / 1 - / 4 7	9	10	12	*Ns*		h	Gali veri, Fest-Brom
Leonurus glaucescens Bunge	- / - - / - -	- / - - / - -	1 / 1 - / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / - -	2 / - - / 1 2	- / - - / 1 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 2 1	- / - - / - -	- / - - / - -	2 / 1 - / 5 5	3 / 1 - / 7 7	5	13	18	*Ha*		h	Artemi
Lepidium perfoliatum L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	2 / 1 1 / 2 -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / 1 1 / - -	- / - - / - -	2 / 1 1 / - 2	- / - - / - -	- / - - / - -	1 / 1 - / - -	3 / 2 1 / 2 1	2 / 1 - / - -	2 / 1 1 / - -	1 / 1 - / - -	- / - 1 / 1 1	2 / 2 1 / 2 1	- / - 1 / - 1	- / - - / - -	- / 1 - / - -	- / - - / - -	1 / - - / - -	9 / 11 8 / 5 5	16 / 13 8 / 8 6	15	38	51	*Ar*	Mediterr-continent-Eurasiatic	t	Stel medi, Artemi
Lepidium ruderale L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - -	- / - 1 / - -	1	1	1	*Ar*	Irano-Turanian	th	Stel medi, Poly-Arte, Plan majo, [Fest-Pucc]
Limonium alutaceum (Steven) O.Kuntze	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / 1 1	2	2	2	*Ns*		h	Fest-Brom
Limonium bungei (Claus) Gamajun.	- / - - / - -	- / 1 2 / - 2	- / - 1 / 1 2	- / - - / - -	- / - - / - 1	- / 1 2 / 2 2	- / 2 1 / 2 2	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 2 / 1 3	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 2 / 2 2	- / - - / - -	1 / - 1 / - 1	- / - 1 / - 2	- / - - / 1 2	- / - - / - -	- / - - / 2 2	1 / 6 8 / 7 11	1 / 7 12 / 11 21	12	33	52	*Ns*		h	Fest-Brom
Linaria biebersteinii Besser	- / - 2	- / - -	- / 1 -	- / 1 -	- / - 1	- / 1 1	- / - 1	- / - 2	- / 2 2	- / 1 1	- / 1 1	- / - 1	- / - 1	- / - 1	- / 1 2	- / - -	- / 1 1	- / 1 1	- / 1 1	- / - 1	- / - 1	- / 1 2	- / - -	- / - 2	- / 1 -	- / 2 -	- / 13 19	- / 15 25	25	74	107	*Ha* (*)		h	Fest-Brom, Gali veri, Agro int-rep, Moli-Arrh

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Besser	1	2	-	1	1	1	1	2	2	2	1	-	2	2	2	3	2	1	2	2	1	-	1	2	-	2	-	-	2	2	-	-	2	2	20	23	31	36								

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Linaria genistifolia (L.) Mill.	- / 1 1 / 2 1	- / 1 - / 1 -	- / 1 1 / 2 1	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / 2 1 / 1 -	- / - - / - -	- / - - / 1 1	- / - - / 1 -	- / - - / - -	- / 1 - / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 1	- / - - / 1 1	- / - 1 / 2 -	- / - - / 1 1	- / 1 - / 1 -	- / - - / 2 1	- / - 1 / 2 1	- / 1 1 / 2 2	- / 8 6 / 16 10	- / 9 6 / 23 11	16	40	49	*Ha*		h	Fest vagi, Fest-Brom
Linum austriacum L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 2 / 1 2	- / - - / - -	1 / 1 2 / 1 1	- / 1 1 / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / 3 3 / 4 4	1 / 3 5 / 5 5	4	15	19	*Ns*		h	Fest-Brom
Lolium perenne L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	1	1	1	*Ap*		h	Plan majo
Lycopersicon esculentum Mill.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	- / - - / - 1	1	1	1	*Eg*	South American	t	Stel medi
Lycopsis orientalis L.	- / 1 1 / 1 1	1 / - - / - -	- / 1 - / - -	- / - - / - -	- / 1 1 / - -	1 / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / - - / 1 -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / 1 -	- / - - / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / - -	3 / 4 2 / 5 5	3 / 4 2 / 6 5	11	19	20	*Ap*		t	Stel medi
Malus domestica Borkh.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / 1 1	- / - - / 1 1	2	2	2	*Ke*	hort.	mf	Robin
Malva pusilla Smith	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	1	1	1	*Ar*	Irano-Turan-Euro-siber or arch.resist.?	th	Stel medi
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Medicago agrestis Ten.	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - -	- / - 1 / - -	1	1	1	*Ns*		t	Fest-Brom
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Medicago lupulina L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 2 -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 -	- / 1 - / 2 -	2	2	3	*Ap*		th	Stel medi
Medicago minima (L) Bartal.	1 / 1 1 / - -	- / - - / - -	- / - - / - -	- / 2 1 / 2 -	- / - - / 1 -	- / 1 1 / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / 1 - / 1 -	- / 1 1 / - -	- / - - / - -	- / 2 - / - -	- / - 1 / - -	- / 2 - / 2 -	- / 1 - / - -	- / 1 - / 2 1	- / - - / - -	- / 1 - / - -	- / 1 1 / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / 13 6 / 5 2	1 / 16 6 / 8 2	15	27	33	*Ns*		t	Fest-Brom, Poly-Arte
Medicago sativa L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - -	- / - 1 / - -	1	1	1	*Ke*	W-Asiatic	h	Artemi
Medicago × varia T.Martyn	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 2 4	- / - - / 3 4	4	6	7	*Ke*	anthropogenic	h	Artemi
Melandrium album (Mill.) Garcke	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 2 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / 1 1	- / 1 - / 2 4	- / 1 - / 3 4	4	7	8	*Ap*		th	Artemi, Robin
Melilotus albus Medik.	- / - - / - -	- / - 1 / 2 2	- / - - / - -	- / - - / 1 -	- / 1 - / - -	1 / - - / 2 1	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	1 / 1 1 / 5 3	1 / 1 1 / 7 4	6	11	14	*Ap*		th	Artemi
Melilotus officinalis (L.) Pall.	- / - - / 1 -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - 1	- / - - / 1 1	- / - - / 1 1	- / - - / 1 1	- / - - / - 1	- / - - / - -	- / - - / - 1	- / - - / 1 1	- / - - / - 1	- / - - / 1 1	- / - - / 1 -	- / - 1 / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / 8 12	- / - 1 / 8 12	14	21	21	*Ap*		th	Artemi
Meniocus linifolius (Stephan ex Willd.) DC.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / - 1 / - -	- / - - / - -	2 / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	2 / 1 1 / - -	3 / 1 1 / - -	2	4	5	*Ns*		t	Fest-Brom
Minuartia hybrida (Vill.) Schischk.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / 1 - / - -	1	1	1	*Ns*		t	Ther-Brach, Fest-Brom, Poly-Arte
Myosotis micrantha Pall. ex Lehm.	- / 1 - / - -	1 / 2 - / - -	- / 2 - / - -	- / 1 2 / 1 1	- / 2 1 / 2 -	- / 1 2 / - -	- / 2 1 / - -	- / 2 2 / 2 2	- / 2 - / 2 -	- / - 1 / - -	- / - - / - -	- / 2 - / - -	- / 1 - / - -	1 / 1 2 / - -	1 / 1 - / 2 2	- / - 1 / - 1	- / 2 1 / 2 -	- / 2 1 / 2 -	- / 2 1 / - -	- / - 1 / 1 1	- / 1 1 / 2 -	- / - 1 / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / 2 -	3 / 18 14 / 10 5	3 / 28 18 / 18 7	23	50	74	*Ha*		t	Fest vagi, Fest-Brom, Poly-Arte
Myosurus minimus L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - 1	- / 1 - / - 1	2	2	2	*Ha*		t	Isoe-Nano
Nepeta cataria L.	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - 3	- / - - / - 3	3	3	3	*Ar*	E-Mediterr	c	Artemi, Urti-Samb, Rham-Prun
Nepeta parviflora M.Bieb.	- / - - / - -	- / - 1 / - 1	- / - 1 / - 1	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - 1 / 1 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 3 / 1 5	- / - 3 / 1 6	5	9	10	*Ns*		h	Fest-Brom

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Nigella arvensis L.	- - -	1 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 2 1	- - -	- - -	- - -	- - -	- - -	- 1 1	- 1 1	1 1 1	- - -	- 1 1	- - -	- - -	- - -	- - -	2 2 9	2 2 10	2 2 8	9	23	24	*Ar*	Balkan-W-Asiatic	t	Stel medi, [Fest-Brom]
Nonea rossica Steven	- - -	- - -	- - -	- - -	- 1 -	1 1 -	- - -	- - -	1 1 -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	1 1 4	1 1 3	6	10	10	*Ha*		h	Fest-Brom, Artemi
Onopordum acanthium L.	- - -	- - 1	2 2 1	- 1 1	- - -	2 2 2	- 1 1	- - -	- - -	- 1 1	- 1 1	- - -	- - -	- - -	1 1 1	- - -	- - 1	- 1 1	- - -	- 1 1	- - -	- 1 2	- - -	- - -	1 1 -	- - 1	3 4 10	5 6 11	13	32	39	*Ar*	Mediterr-Irano-Turanian	h	Artemi
Ornithogalum kochii Parl.	- - -	- - -	- 1 1	- - -	1 - -	- - -	- - -	1 - -	2 2 3	- - -	- - -	- - -	- - -	- - -	1 2 1	3 2 -	- 1 2	1 1 1	1 1 1	1 1 1	2 1 -	2 2 -	2 1 -	- 2 -	1 1 -	- - -	1 10 5	1 14 5	15	34	47	*Ns*		g	Fest-Brom
Otites densiflorum (D`Urv.) Grossh. aggr.	1 2 1	- - -	- - -	1 1 1	- - -	- 1 1	- - -	- - -	- - -	1 2 1	1 1 1	1 1 1	- - -	- - -	1 1 2	- - -	1 1 1	1 1 1	1 1 1	- 1 1	- - -	1 1 -	1 1 1	- 1 1	1 2 1	1 2 2	7 14 11	7 19 12	16	57	64	*Ns*		h	Fest vagi, Fest-Brom, Poly-Arte
Panicum miliaceum L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 1	- 1 1	- - -	- - -	- 1 2	- - -	- - -	- - -	- - -	- 2	- 2	3	5	6	*Ke*	C-Asiatic	t	Stel medi
Papaver dubium L.	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	1 - -	- - -	- 1 1	1 1 1	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - 1	2 1 3	2 1 3	7	12	12	*Ar*	Mediterr-Irano-Turanian	t	Stel medi
Papaver rhoeas L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- -	- -	1	1	1	*Ar*	Mediterr-Irano-Turanian	t	Stel medi
Pastinaca clusii (Ledeb.) M.Pimen.	- - -	2 1 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 3 1	2 2 2	1 3 2	1 1 1	1 1 1	- - -	- - -	- - -	- - -	- - -	1 2 2	- - -	2 1 -	- - -	- - -	- - -	2 2 2	5 7 7	7 12 9	8	34	54	*Ns*		h	Fest-Brom
Phelipanche lanugino-sa (C.A.Mey.) Sojåk	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - 1	1 2 1	1 - -	- 1 2	2 2 2	- - -	- - -	1 1 -	- - -	1 5 2	1 6 3	7	18	23	*Ns*		g	Fest-Brom, Fest vagi
Phelipanche purpurea (Jacq.) Sojåk	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	1 3 1	3	5	5	*Ns*		g	Fest-Brom, Artemi
Phlomis hybrida Zelen.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 1	- - -	- - -	- - -	- - -	1 2 1	1 2 1	2	7	7	*Ns (**)*		h	Fest-Brom
Phlomis pungens Willd.	- - -	- - -	1 1 1	1 1 1	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	2 2 2	1 2 3	1 2 2	- - -	1 6 5	1 8 5	7	22	29	*Ns*		h	Fest-Brom
Phlomis tuberosa L.	- - -	- - -	3 3 3	- - -	- - -	- 1 1	- - -	- - -	- - -	- 1 1	- - -	2 3 -	- - -	- - -	- - -	- - -	- - -	- - -	1 2 1	- - -	- - -	1 2 -	- - -	- - 2	- 1 1	- 1 2	2 4 7	4 11 16	10	23	38	*Ns*		hg	Fest-Brom, Gali veri
Picris hieracioides L.	- - 1	- - -	- - -	1 - -	- - -	- - -	- - 1	1 - 1	2 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	1 - -	- - -	- - -	- - 1	- - -	- - 1	- - 1	- - 1	- - 1	1 7	1 8	10	14	15	*Ha*		h	Fest vagi, Artemi
Plantago lanceolata L.	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	1 1 -	- -	1 3	5	7	7	*Ha*		h	Gali veri, Fest-Brom,
Poa angustifolia L.	- - 2	- - 2	1 2 3	2 3 2	- - 2	1 2 3	1 1 1	- - -	- - -	- 2 2	2 1 2	1 2 2	- 2 3	1 1 3	- 1 1	1 1 2	1 1 3	- 1 2	- - 1	1 1 2	- 1 2	- 1 2	- 2 2	1 2 2	1 2 2	2 2 2	4 9 21	5 10 43	25	74	136	*Ha*		hg	Gali veri, Fest-Brom, Agro int-rep, Robini
Poa bulbosa L.	2 3 2	3 2 2	2 1 3	1 3 2	- 2 2	2 1 1	2 3 2	2 2 2	2 2 2	2 3 1	1 - -	2 1 -	1 2 -	2 3 2	2 3 3	2 3 3	2 3 3	2 1 2	2 2 -	3 2 1	- 1 1	1 2 1	1 2 1	2 1 -	2 3 1	1 2 2	22 25 18	41 59 35	25	104	202	*Ha*		h	Fest-Brom, Poly-Arte, Fest vagi, Agr int-rep
Poa compressa L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 2	- - -	- - -	- - -	- - -	- - -	- - -	- 1	- 1	1	2	3	*Ha*		h	Fest-Brom, Agro int-rep
Poa pratensis L.	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -	- - 2	- - -	2 - -	2 - 3	3 - 4	4	5	7	*Ha*		hg	Moli-Arrh
Polycnemum arvense L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - 1	1 - 1	1	2	2	*Ke*	Mediterr-continent	t	Stel medi, [Fest vagi], [Fest-Pucc]
Polygonum aviculare L.	- - -	- - -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	1 - 1	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- 1 2	- - -	- - -	- - -	- - -	- - -	1 2 1	1 2 1	4	7	8	*Ap*		t	Poly-Arte, Plan majo
Polygonum neglectum Besser	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	1 - -	1	1	1	*Ap*		t	Poly-Arte, Plan majo

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Polygonum patulum M.Bieb.	1; - -; - -	-; 1 -; 1 -	-; - -; - -	1; 1 1; - -	-; - -; - -	2; 1 -; - 2	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; 1 -	2; - 1; 1 -	-; - -; - -	-; 1 2; - -	-; - -; - -	-; - -; - 1	-; - 1; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	4; 6 4; 3 3	6; 6 5; 3 4	10	20	24	*Ha*		t	Fest-Brom, Poly-Arte, Artemi
Portulaca oleracea L.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	2; 1 -; 2 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	2; 1 -; 2 1	3; 1 -; 3 1	3	6	8	*Ar?*	Mediterr-sub-Mediterr	t	Stel medi
Potentilla argentea L.	-; 1 1; 3 2	-; 1 1; 3 2	-; - -; 2 2	-; - -; 2 2	-; 1 2; 3 -	1; 1 1; 2 2	-; 1 1; 2 2	-; - -; 2 2	-; 1 1; 3 2	-; - 1; 1 2	-; 1 1; 2 2	1; 1 1; 2 2	1; 1 1; 2 2	1; 1 2; 2 2	-; 1 2; 2 3	-; 1 -; 3 3	-; 1 1; 2 2	-; 2 2; 2 2	-; 1 1; 2 3	-; - -; 1 2	-; - -; 2 1	-; 1 1; 1 1	-; - -; - 2	-; - 2; 2 2	-; - 1; 1 1	1; 1 2; 2 3	5; 17 19; 25 25	5; 18 25; 51 51	26	91	150	*Ha*		h	Gali veri, Fest vagi, Fest-Brom, Artemi, Sedo-Scle
Potentilla astrachanica Jacq.	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 1; 1 1	-; - -; - -	-; - -; - -	-; 1 -; - -	-; - 1; - -	1; 1 1; - -	-; 1 1; - -	-; - 2; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 2; - -	-; - 1; - -	-; - 1; - -	-; - -; 1 -	-; - -; 2 -	-; - -; - -	1; - 1; - -	-; 1 1; - 1	-; - 1; 1 -	-; - 1; - -	2; 6 12; 4 2	2; 6 14; 5 2	15	26	29	*Ns*		h	Fest-Brom
Potentilla laciniosa Kit. ex Nestl.	-; 1 1; 1 1	1; 2 1; - 1	-; 1 1; - 1	-; 2 1; - 1	-; - 1; - 1	-; 1 -; - -	-; 1 -; - -	-; 2 -; - -	-; 1 1; - -	1; 2 2; 1 1	1; 1 1; 2 2	-; - -; 1 1	-; 1 -; - -	-; - -; - -	-; - 1; - -	-; - -; - -	-; 1 2; 1 1	1; 1 2; - -	-; 2 1; 2 1	-; 1 1; 2 2	-; - 1; 1 2	-; - -; 1 1	-; - 1; - -	1; 1 -; - -	1; 1 -; - -	-; 1 1; - -	6; 18 16; 9 13	6; 23 19; 12 16	24	62	76	*Ns*		h	Fest-Brom
Potentilla neglecta Baumg.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 1	-; - -; 1 1	1	2	2	*Ha*		h	Fest-Brom, Artemi
Potentilla recta L.	-; - -; - -	-; 1 2; 1 1	-; 2 2; 1 2	1; 1 2; 1 1	-; - -; 1 -	-; - -; - 1	1; 1 1; - 1	-; 1 1; 2 1	1; 2 1; - 1	-; 1 2; 1 -	-; - -; - -	1; 1 1; - 1	-; - -; - -	-; - -; - -	-; - 1; - -	-; - -; - -	-; 1 1; 1 2	-; 2 2; 2 2	1; 1 1; - -	-; 1 -; - 1	-; - -; 2 2	-; 1 -; 1 1	-; - 1; - -	-; - 2; 2 -	1; 2 1; - -	-; - 1; - -	6; 14 16; 11 13	6; 18 22; 15 17	21	60	78	*Ns*		h	Fest-Brom
Prunus stepposa Kotov	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 1; - 3	-; - -; 2 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 2	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 1; 1 4	-; 1 1; 2 7	4	7	11	*Ns*		nf	Rham-Prun
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Pyrus communis L.	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; 1 2	-; - -; 1 2	3	3	3	*Ae*		mf	Robin, [Quer-Fage]
Ranunculus oxyspermus Willd.	-; 1 -; - -	-; 1 -; - -	2; 2 1; 1 1	-; - -; 1 -	-; - -; - -	2; 2 2; 2 1	-; - -; - -	-; - -; - -	-; 1 -; - -	-; - -; - -	-; - 2; 2 -	-; - -; - -	-; - -; - -	-; - -; - -	1; 2 2; 1 -	-; - -; - 1	1; 3 2; 3 1	1; 2 2; 2 -	2; 2 2; 2 1	2; 2 2; - 1	1; 2 1; - -	2; 2 1; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; 1 -; - -	9; 13 10; 8 6	14; 23 17; 14 6	16	46	74	*Ns*		hg	Fest-Brom
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Rapistrum perenne (L.) All.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; 1 -	-; - -; 1 -	1	1	1	*Ke*	Mediterr	h	Artemi
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Rosa canina L.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; 1 1	-; - -; - -	-; - -; 1 2	-; - -; 1 2	2	3	3	*Ns*		nf	Rham-Prun, Quer pub-pe,
Rosa corymbifera Borkh.	-; - -; - -	-; - -; - 1	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - 1	-; - -; - 1	1	1	1	*Ns*		nf	Rham-Prun
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Rumex stenophyllus Ledeb.	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	-; - -; - -	1; - -; - -	1; - -; - -	1	1	1	*Ha*		h	Cryp acul, Stel medi

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Salsola tragus L.	- - - 2 2	- - - 2 -	- - - - -	1 1 1 - -	- - - - -	2 1 - 1 -	- - - - -	- - - - -	- - - - -	1 1 - - -	- - - - -	- - - - -	- - - - -	1 1 - 1 -	1 - - - -	2 - - - -	- - - - -	- - - 1 1	- - - - -	- - - - -	- - - - -	- - - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	6 4 1 6 2	8 4 1 8 3	10	19	24	*Ap*		t	Stel medi, Caki mari
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Sambucus nigra L.	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - 1	1	1	1	*Ap*		nf	Urti-Samb, Robini
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Sclerochloa dura (L.) P.Beauv.	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - 1	1	1	1	*Ar*	W Asiatic or Mediterr-Irano-Turanian	t	Plan majo
Scorzonera mollis M.Bieb.	- - - - -	- - - - -	- - - - -	- 2 1 - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 - - - -	- - - - -	- - - - -	- - - - -	1 1 1 - -	1 2 1 - -	2	3	4	*Ns*		h	Fest-Brom
Scorzonera stricta Hornem.	- - - - -	- 1 - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- 1 - - -	- 1 - - -	1	1	1	*Ns*		h	Fest-Brom
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Senecio vernalis Waldst. & Kit.	- 1 1 - 1	- 2 1 1 -	1 1 - 2 -	- 1 3 1 1	- 2 1 1 -	1 2 1 2 1	1 1 1 1 1	- 2 1 1 1	2 2 - 2 -	- 1 - - -	- - - 2 -	- 1 - - 1	- - - - -	- 1 1 2 -	3 2 2 2 1	1 1 1 2 1	1 1 - - -	- 1 - - -	1 1 - 1 1	1 1 - 1 1	- 1 1 1 1	- 1 - 1 -	- - - 1 1	- - - 1 -	- 1 - - 1	- 1 - 1 1	9 22 11 19 14	12 28 14 26 14	25	75	94	*Ap*		th	Stel medi, Fest vagi
Serratula erucifolia (L.) Boriss.	- - - - -	- 1 1 - 2	- - 1 1 -	1 2 2 1 -	- - - - -	- 1 2 - -	1 2 1 1 -	- - - - -	- - - - -	- 1 2 - 2	- 1 1 - 1	- - - - -	- - 1 - 1	- - 1 2 -	- - 1 - 2	- - - - -	- - - - -	- - 1 - -	- - - - -	1 2 2 - -	- - - - -	- 2 1 1 -	- - - - -	1 1 2 2 1	- - - - -	- 1 1 - -	4 10 15 6 6	4 14 20 8 9	15	41	55	*Ns*		h	Fest-Brom
Seseli tortuosum L.	- - - - -	- - - - -	1 1 1 1 2	- - - 1 -	- 2 1 2 1	- - - 1 1	- 2 2 1 1	- - 1 - 1	1 - - - -	- - - - -	- - - - -	- - 1 1 2	- 1 1 1 2	- - - - -	1 2 2 2 2	1 - 1 2 1	- 1 - 1 1	- 2 1 2 1	- 1 1 - 1	- 2 - - -	- - - - -	- - - - -	- - - - -	- - - - -	- 2 - - 1	- 1 1 2 1	4 11 11 12 14	4 17 13 17 18	17	52	69	*Ns*		h	Fest-Brom, Fest vagi, Poly-Arte
Setaria glauca (L.) P.Beauv.	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - 1 2	- - - 1 2	3	3	3	*Ar*	Indian-Malay	t	Stel medi
Setaria viridis (L.) P.Beauv.	- - - - -	- - - 1 -	- - - 1 -	- 1 - - -	- - - - -	2 1 - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - 1 1	- 1 - 1 1	- 1 - - -	- - - - -	1 - - 1 2	- - - 2 1	- - - - -	- - - 2 1	- - - - 2	- - - 2 1	- - - - -	- - - - -	- - - - -	- - - 1 -	2 4 - 10 7	3 4 - 13 9	13	23	29	*Ar*	Mediterr-Irano-Turanian	t	Stel medi
Silybum marianum (L.) P.Gaertn.	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - 1	1	1	1	*Ke*	Mediterr-Irano-Turanian	th	Stel medi
Sinapis arvensis L.	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- - - - 1	1	1	1	*Ar*	Mediterr-Atlantic	t	Stel medi
Sideritis montana L.	- - - - -	- - - - -	- - - - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - 1 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - 1 - 1	- - - - -	- - - - -	- - - - -	- - - - -	- - 1 1 2	- - 1 1 2	3	4	4	*Ha*		t	Fest-Brom, Stel medi
Sisymbrium altissimum L.	- 1 2 2 2	- - - - -	1 1 - 2 -	- - - - -	1 1 - - -	2 1 2 2 2	- - - - -	- - 1 1 2	- 1 - - -	1 1 1 1 1	- 1 1 - 1	- 1 - - -	1 1 - - -	- - - - 1	- - - 1 -	- - - - -	1 2 - 1 -	1 1 1 1 1	2 2 1 1 1	1 1 - 1 -	1 1 1 - 1	1 1 1 2 1	- - - - -	- - - 1 1	- 1 - - 1	1 - - 1 -	12 16 9 13 12	14 18 11 17 15	21	62	75	*Ap*		th	Stel medi
Sisymbrium loeselii L.	- 1 - 1 -	3 2 1 3 2	- 1 - 2 -	- - - - 1	- 1 - - -	- - - - -	- - - - -	2 2 1 - 2	- 1 - - -	1 1 1 1 1	- 1 - - 1	- - 1 - -	- - - - -	3 2 1 2 1	1 - 2 2 -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - 1	- 1 1 2 2	- - - - -	- - - 1 -	- 1 - - -	1 - - 1 -	1 - - - -	7 11 7 9 8	12 14 8 15 11	18	42	60	*Ar?*	Eurasiatic-continent	th	Stel medi, Artemi
Sisymbrium polymorphum (Murray) Roth	- 1 1 2 -	- 1 1 1 1	- - 2 1 1	- - - - -	- 1 1 2 -	- 1 1 1 1	- 2 1 1 1	- - - - -	- 2 1 2 1	- 1 2 1 2	1 1 2 2 -	- 1 2 1 2	- 2 2 1 1	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	1 1 2 2 2	- 2 2 1 1	1 2 2 2 2	1 2 2 - 2	4 14 15 12 15	4 20 24 20 17	15	59	85	*Ns*		th	Fest-Brom
Solanum nigrum L.	- - - - -	- - - - -	- - - - -	1 1 - 1 -	- - - - -	1 1 - - -	- - - - -	- - - - -	1 - - - -	- - - 1 -	- - - - 1	- - - - -	- - - - -	1 1 - 1 -	1 - 1 - -	- - - - -	1 - - 2 1	- - - - 2	- - - 1 -	- - - - -	- - - 1 1	- - - 1 1	- - - - -	- - - - -	- - - - -	- - - - -	6 3 1 7 5	6 3 1 8 6	12	22	24	*Ar*	Mediterr-Atlantic?	t	Stel medi

Cell values in columns 1–28 are given as: top / middle-left middle-right / bottom-left bottom-right.

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Solanum tuberosum L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / 1 - / - -	1	1	1	*Eg*	American	g	Stel medi
Sonchus arvensis L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 1	- / - - / 1 1	1	2	2	*Ar?*	sub-Atlantic-boreal-Eurasiatic	h	Stel medi
Sonchus asper (L.) Hill	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / - - / 1 -	- / - - / - -	- / - - / - 1	- / - - / 1 -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / - - / 3 2	1 / - - / 3 2	5	6	6	*Ar*	Mediterr	t	Stel medi
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Sorghum sudanense (Piper) Stapf	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	- / - - / - 1	1	1	1	*Eg*	African	t	Stel medi
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Stellaria media (L.) Vill.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - 1	1	1	1	*Ap*		th	Stel medi
Stipa capillata L.	- / 3 3 / 2 1	1 / 3 2 / 2 2	- / 1 1 / - -	1 / 3 2 / 1 1	- / - 1 / - 1	1 / 2 2 / 1 2	1 / 3 3 / 2 1	1 / 2 3 / 2 1	2 / 3 3 / 2 1	1 / 3 2 / 1 1	- / 1 2 / 1 1	1 / 1 1 / - -	1 / 2 1 / - -	1 / 2 3 / 3 1	1 / 3 3 / 1 1	1 / 3 3 / 2 1	- / - - / - -	- / 2 2 / - -	- / - - / - -	- / 2 2 / - -	1 / 3 2 / 2 1	- / 3 3 / 1 1	1 / 2 2 / 2 -	1 / 2 2 / 1 1	- / 2 1 / 2 -	1 / 2 3 / 3 1	16 / 23 24 / 18 17	17 / 53 52 / 31 19	24	98	172	*Ns (***)*		h	Fest-Brom
Stipa lessingiana Trin. & Rupr.	- / 1 - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / - -	- / 1 - / - -	1	1	1	*Ns (***)*		h	Fest-Brom
Stipa ucrainica P.Smirn.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 2 - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 -	- / 2 - / 1 -	1	2	3	*Ns (***)*		h	Fest-Brom
Tanacetum millefo-lium (L.) Tzvelev	- / 2 2 / 2 1	1 / 2 3 / 2 2	- / 1 - / - -	2 / 2 2 / 3 1	- / 1 2 / 1 -	3 / 3 3 / 2 3	2 / 2 2 / - -	- / - - / - -	- / - - / - -	1 / 2 2 / 1 1	3 / 2 3 / - 1	1 / 2 2 / - -	1 / 2 2 / 1 1	1 / 1 3 / - -	- / 2 2 / - 1	- / - - / - -	1 / 3 3 / 1 2	1 / 3 3 / - 1	- / - - / - -	1 / 3 2 / 2 1	- / 2 1 / 2 2	2 / 2 3 / 2 1	3 / 3 2 / - -	3 / 3 2 / 2 2	- / - - / - -	2 / 2 3 / 1 1	16 / 21 20 / 13 15	28 / 45 47 / 22 21	21	85	163	*Ns*		hg	Fest-Brom
Taraxacum erythro-spermum Andrz.	- / 1 1 / 2 1	1 / 1 1 / - 2	- / 2 2 / - -	2 / 2 2 / 2 1	- / 1 1 / 2 2	2 / 2 3 / 2 2	1 / 1 1 / 2 2	1 / 2 1 / 2 1	1 / 2 1 / 2 1	- / 1 1 / 1 1	- / 2 2 / 2 2	1 / 1 2 / 1 1	1 / 1 2 / 1 -	1 / 1 2 / - -	1 / - - / 1 1	- / 1 1 / 1 -	- / 2 1 / - 1	- / 1 1 / - -	- / 1 1 / 2 1	1 / - - / 1 -	1 / - 1 / 2 1	- / - - / - -	- / - - / - 1	- / 1 - / 1 -	1 / 1 - / - -	- / 2 1 / 2 1	13 / 21 20 / 18 17	15 / 29 28 / 29 22	25	89	123	*Ns*		h	Fest-Brom, Poly-Arte
Taraxacum officinale Wigg.	- / - - / - -	- / - - / - 1	- / 1 - / 1 1	- / - - / - -	- / - - / - -	2 / - 1 / 1 2	- / - - / - 1	- / - - / 1 -	- / - - / - -	- / - - / - 1	1 / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	2 / 1 1 / 4 8	3 / 1 1 / 4 9	11	15	18	*Ap*		h	Plan majo
Taraxacum serotinum (Waldst. & Kit.) Poir.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / 1 -	1	1	1	*Ha*		h	Fest-Brom, Poly-Arte
Teucrium polium L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / 2 -	- / - - / 2 -	2	2	2	*Ns*		c	Fest-Brom, Fest vagi
Thalictrum minus L. aggr.	- / - - / - -	- / - - / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / 3 3 / 2 2	- / - - / 2 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - 1 / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 2	- / - - / - -	- / - - / 1 3	- / 1 2 / 3 7	- / 3 4 / 5 13	7	13	25	*Ns*		h	Fest-Brom, Gali veri, Trif-Gera
Thesium arvense Horv.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / 1 1	- / - 1 / 1 1	2	3	3	*Ns*		h	Fest-Brom, Poly-Arte
Thlaspi arvense L.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 3	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 3	- / - - / 1 6	3	4	7	*Ar*	Irano-Turanian	th	Stel medi
Thlaspi perfoliatum L.	- / - - / - -	- / - - / - -	- / 1 - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 - / 1 2	- / 1 - / 1 3	2	4	5	*Ke*	Mediterr	th	Stel medi
Thymelaea passeri-na (L.) Coss. & Germ.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / 1 -	- / - - / 1 -	1	1	1	*Ar*	Mediterr-Irano-Turanian	t	Ther-Brach, [Fest-Brom, Poly-Arte]
Thymus dimorphus Klokov & Des.-Shost.	- / 1 - / - -	- / - - / - -	- / 1 - / - -	- / - 1 / - 1	- / - 1 / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 2 - / 1 -	- / - - / - -	- / - - / - -	- / 3 2 / 1 1	- / 4 2 / 1 1	5	7	8	*Ns*		c	Fest-Brom, Fest vagi
Thymus marschallianus Willd.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / 1 1 / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - 1 / 1 1	- / - 1 / - 1	- / 1 - / - -	- / - - / - -	- / 2 3 / 1 3	- / 2 3 / 1 3	5	9	9	*Ns*		c	Fest-Brom
Torilis japonica (Houtt.) DC.	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	1 / 1 - / 2 1	1 / - - / - 1	- / - - / - 2	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - 1	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	- / - - / - -	2 / 1 - / 1 4	2 / 1 - / 2 5	4	8	10	*Ap*		th	Artemi

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Tragopogon major Jacq.	1 1 1	1 1 -	1 1 1	- 1 1	- 1 1	1 1 1	1 1 1	1 - 1	- 1 1	- - -	1 1 1	- 1 1	- - -	1 1 -	- 1 1	- - -	1 1 1	- 1 1	1 1 1	- 1 1	1 - -	- - 1	- - -	- 1 1	- - -	1 1 1	12 18 16	12 17 20	24	83	83	*Ap*		h	Fest-Brom, Artemi
Tragus racemosus (L.) All.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - 1	1 - 1	1	3	3	*Ke*	Mediterr-sub-Atlantic-Eurasiatic	t	Stel medi, [Fest vagi]
Tribulus terrestris L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	2 - -	- - -	- - -	- - -	- - -	- - -	1 2 -	1 3 -	3	3	4	*Ke*	Mediterr-Irano-Turanian	t	Stel medi, [Fest vagi]
Trifolium arvense L.	- 3 3	3 3 2	3 3 3	- - -	1 2 1	2 2 -	2 3 3	2 2 2	3 3 2	2 1 1	2 2 3	2 3 2	2 3 2	1 2 1	3 1 1	1 3 2	2 2 3	3 3 1	2 2 2	2 2 1	1 2 2	2 2 2	2 2 1	- - -	- 2 -	2 1 -	6 23 21	12 23 18	52 41	12 44 33	24	91	182	*Ap*		t	Fest-Brom, Fest vagi, Gali veri, Poly-Arte, Sedo Scle
Trifolium campestre Schreb.	- - -	- - -	- - -	- - -	1 2 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 1	- -	1 2	1	2	3	*Ha*		t	Fest vagi, Stel medi, Ther-Brac
Trifolium diffusum Ehrh.	- 1 2	1 2 -	- - -	- - -	- 2 1	- 1 -	- 2 2	- - 1	- - -	- 1 3	1 2 3	- 1 3	1 1 3	- - -	- - -	- - -	- - -	- 2 2	1 - 2	- 1 1	1 1 1	- - -	- - -	- - -	- - -	- - -	- 4 10	- 6 8	- 4 20	- 6 14	11	28	44	*Ns*		t	Fest-Pucc
Trifolium pratense L.	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 2	- -	- 2	2	2	2	*Ha*		h	Moli-Arrh
Trigonella monspeliaca L.	- 2 2	- - -	- - -	- 1 -	2 - -	- 2 1	1 - -	- - -	- - -	- 2 1	- - -	1 1 1	- - -	1 - -	- - -	- 1 -	1 - 2	1 - -	- 1 1	- 1 1	1 - 1	- - -	- 2 -	- - -	- - -	- - -	4 16 -	4 5 -	22 -	6 -	16	25	32	*Ns*		t	Fest-Brom, Poly-Arte
Tripleurospermum inodorum (L.) Sch.Bip.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- -	- 1	- -	1	1	1	*Ar*	Atlantic-Eurosiber (arch. resistentia?)	t	Stel medi
Triticum durum Desf.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- -	- 1	- -	1	1	1	*Eg*	SW-Asiatic	t	Stel medi
Tulipa biebersteiniana Schult. & Schult. f. s.l.	- 1 -	1 1 1	1 1 1	- - -	- - -	- - -	- - -	1 2 2	2 2 2	- - -	- - -	- - -	- - -	- - -	2 2 -	- - -	2 2 2	- 1 -	- - 1	- - -	1 2 1	1 1 1	1 1 2	1 2 1	1 1 1	2 1 1	1 2 -	6 13 6	7 12 4	17 9	17 4	17	41	54	*Ns (***)*		g	Fest-Brom
Urtica dioica L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- -	- 1	- -	1	1	1	*Ha*		h	Gali-Urti, Robini, Artemi
Valeriana tuberosa L.	- - -	- 1 2 1	- - -	1 2 1	- - -	- - -	1 2 -	- - -	- - -	1 1 1	1 3 1	1 2 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 1	- 2 -	- 1 1	1 1 1	1 2 1	1 1 1	- - -	4 7 1	4 12 4	8 1	19 5	12	28	37	*Ns*		g	Fest-Brom
Valerianella carinata Loisel.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	2 2 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 2	- -	2 3	- -	2	4	7	*Ha*		t	Fest vagi, Fest-Brom, Stel medi
Verbascum austriacum Schott ex Roem. & Schult.	- - -	- - -	- - -	2 - 1	- - -	- - -	- 2 1	- - -	- - -	- - -	- - -	- 2 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- - -	- 1 2	1 2 -	- - -	1 1 3	1 7	2 6	1 9	7	12	18	*Ns*		h	Gali veri
Verbascum blattaria L.	- 1 1	- - 2	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- 1 1	1 1 1	- - -	- - -	- - -	- - -	- - -	- 1 1	- - -	- - -	- - -	- - -	- 1 1	- - -	- - -	2 2 5	2 3	2 6	2 3	7	12	13	*Ha*		h	Alth offi
Verbascum x ***ignescens*** Tausch	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- -	- 1	- -	1	2	2	*Ns*		h	Fest-Brom
Verbascum lychnitis L.	- - 1	- - -	- - -	- - 2	- 2 1	- - -	- - 1	- - -	- - -	- - -	- - -	- 2 2	- - 1	- - -	- - -	- - -	- 1 2	1 2 2	1 2 2	- 2 1	- 1 1	- 1 2	- - -	- 2 -	1 1 1	1 1 -	- 5 12	- 6 8	5 19	6 12	13	31	42	*Ha*		h	Gali veri, Fest-Brom, Trif-Gera, Fest vagi, Artemi
Verbascum phlomoides L.	- - 1	- - -	1 2 2	- - -	- - -	1 1 -	- - -	- - -	- - -	- - 1	- 2 1	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	1 1 -	- - 1	2 - -	- 1 2	- - -	- 1 -	1 1 -	- - -	1 4 7	1 5 7	5 9	1 6 9	13	24	30	*Ha*		h	Artemi
Verbascum phoeniceum L.	1 2 2	1 2 2	1 2 2	- - -	2 2 2	2 2 1	2 1 2	2 1 2	2 1 2	1 2 2	2 1 1	- - -	1 2 1	- - -	1 2 2	2 1 2	2 1 2	- - -	1 1 -	- 1 1	1 2 2	- - -	- - -	1 1 2	2 2 1	- 2 3	6 16 15	7 22 20	26 25	34 36	22	79	128	*Ns*		h	Fest-Brom, Fest vagi
Veronica arvensis L.	- 1 1	- - -	1 2 3	- 2 3	- 1 2	1 - 1	- 1 1	2 1 2	- - -	1 - 2	- - 1	1 1 1	1 2 1	1 - 2	- 2 3	2 1 2	- 1 2	- - -	- 1 1	- - 1	- 1 1	- - -	- 1 2	1 2 2	- 2 1	1 1 1	10 5 17	12 16 20	6 29	19 31	24	68	97	*Ar*	Mediterr-Irano-Turanian	th	Stel medi, [Fest-Brom], [Poly-Arte]
Veronica dillenii Crantz	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	1 - -	1	1	1	*Ha*		t	Fest vagi
Veronica hederifolia L.	- - -	- - -	- 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- 1 -	1	1	1	*Ap*		t	Stel medi

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Veronica capsellicarpa Dubovik	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	1 1 -	1 1 -	1	2	2	*Ns*		h	Fest-Brom
Veronica persica Poir.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 -	- 1 -	1	1	1	*Ke*	SW-Asiatic	t	Stel medi
Veronica polita Fr.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 -	1 1 1	1 1 -	- - -	- - -	1 - -	- - -	1 1 -	1 - -	- - -	- - -	- - -	4 1 3	4 4 2	6	14	14	*Ar*	Mediterr-Irano-Turanian	t	Stel medi
Veronica prostrata L.	- - -	- 2 3	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 2 -	2 - -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 2 2	- 1 2	- - -	- - -	2 - 3	2 5 5	6	15	23	*Ns*		c	Fest-Brom
Veronica spicata L. ssp. ***barrelieri*** (Schott) Murb.	- - -	- - -	- - -	1 2 -	2 2 1	1 1 2	1 1 -	- - -	- - -	- - -	1 2 -	1 1 1	2 1 -	1 - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 2 2	- - -	2 2 -	2 1 -	- - -	8 10 8	- 15 13	10	31	44	*Ns*		h	Fest-Brom, Gali veri
Veronica triphyllos L.	- 1 1	1 2 1	- 2 -	2 2 2	2 2 2	- 2 1	2 1 -	2 2 2	- - -	1 1 1	- 1 1	2 2 2	1 - -	1 - -	1 1 2	1 2 1	2 1 2	2 2 2	2 1 1	1 2 1	1 3 2	1 2 1	- - -	1 3 1	- - 1	- 2 2	16 20 14	21 39 23	25	79	125	*Ar*	sub-Mediterr-sub-Atlantic-European	t	Stel medi
Veronica verna L.	- 2 -	1 - -	2 2 2	1 1 -	- 2 2	1 2 1	1 1 1	1 2 2	- 2 2	2 1 1	- 1 -	2 1 -	1 1 2	2 2 3	2 2 2	2 3 1	2 2 2	2 1 -	- 1 -	1 2 1	1 2 1	1 2 1	- 1 -	2 - -	- 1 1	1 1 -	8 22 9	10 40 18	24	68	104	*Ha*		t	Fest-Brom, Fest vagi, Poly-Arte
Vicia angustifolia Reichard	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- 1 -	1	1	1	*Ke?*	Mediterr?	t	Stel medi
Vicia hirsuta (L.) S.F.Gray	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 1	- 1 2	1	3	4	*Ar*	Mediterr-Atlantic	t	Stel medi
Vicia lathyroides L.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 2	- 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 1 2	- 3	2	3	4	*Ns*		th	Fest-Brom, Fest vagi
Vicia villosa Roth	- - -	2 2 3	- - -	- - -	1 - -	- - -	- - -	- - 1	- - -	- - -	- - -	- 1 2	- - -	- - 1	- - -	1 1 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	3 2 3	4 3 5	6	15	23	*Ar*	Mediterr	th	Stel medi
Vicia tenuifolia Roth	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- 2 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- 2	1	2	3	*Ha*		gh	Trif-Gera
Viola arvensis Murray	- - -	- - -	1 1 2	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 - -	- - -	- - 1	- - 1	- - 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	1 1 2	1 1 3	4	8	10	*Ar*	anthropog?	th	Stel medi
Viola kitaibeliana Schult.	- - -	- - -	1 2 -	- 1 2	- - 1	2 1 -	1 2 1	- - -	- - -	- - 1	- - -	2 3 1	- 1 -	1 2 1	2 2 2	2 2 2	1 1 1	- - -	- - -	- - -	- - 1	- - -	- - -	- 1 -	- - -	- - -	2 9 5	2 12 9	13	30	44	*Ha*		t	Fest-Brom, Poly-Arte
Xanthium albinum (Widder) H.Scholz	- - 1	- - -	- - -	- - -	- - -	1 - -	- - -	- - -	- - -	1 1 -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	1 1 1	1 1 1	- 1 1	- - -	- 1 -	- - -	- - 1	- - -	2 4	- 6	9	12	12	*Ke*	North American	t	Stel medi, [Bident]
Xanthium californicum Greene	- - -	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - 1	- - -	- - -	- - 1	- - -	- - -	- - -	- - -	- - -	- 2	- 1	3	3	3	*Ke*	North American	t	Stel medi
Xeranthemum annuum L.	- 2 2	1 1 1	1 1 1	- 1 1	1 2 2	- - 1	- - -	- - -	- - -	- - -	- - -	- 1 -	- 1 -	1 - -	- - 1	1 1 -	1 1 1	1 2 2	2 1 2	1 1 1	1 1 2	1 1 1	- - -	- 1 -	1 1 1	- 1 1	8 12 14	8 16 19	18	52	61	*Ha*		t	Fest-Brom, Poly-Arte
The number of T species	**31**	**42**	**42**	**37**	**21**	**55**	**32**	**26**	**21**	**39**	**21**	**39**	**35**	**34**	**56**	**40**	**47**	**27**	**40**	**31**	**29**	**29**	**26**	**22**	**38**	**35**									
The number of Ss species	**67**	**66**	**76**	**77**	**62**	**82**	**61**	**35**	**50**	**74**	**43**	**55**	**58**	**51**	**48**	**38**	**68**	**63**	**69**	**58**	**60**	**60**	**25**	**48**	**63**	**49**									
The number of Sn species	**75**	**63**	**62**	**60**	**60**	**75**	**57**	**46**	**33**	**81**	**43**	**63**	**43**	**44**	**69**	**40**	**55**	**69**	**75**	**66**	**74**	**74**	**44**	**50**	**60**	**51**									
The number of Bs species	**63**	**70**	**65**	**72**	**56**	**66**	**56**	**51**	**42**	**66**	**57**	**66**	**55**	**59**	**79**	**48**	**81**	**65**	**70**	**75**	**73**	**73**	**42**	**83**	**59**	**63**									
The number of Bn species	**74**	**92**	**68**	**65**	**40**	**76**	**77**	**54**	**33**	**97**	**55**	**84**	**61**	**49**	**80**	**51**	**83**	**65**	**83**	**80**	**91**	**91**	**44**	**76**	**65**	**77**									
The total number of species	**120**	**141**	**111**	**119**	**102**	**123**	**115**	**85**	**72**	**141**	**94**	**109**	**102**	**80**	**126**	**78**	**125**	**108**	**140**	**121**	**125**	**140**	**82**	**122**	**116**	**108**									
Other kurgans from this zone:																																			
Artragalus ucrainicus M.Pop. & Klokov	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -						*Ns*		hc	Fest-Brom
Prangos odontalgica (Pall.) Herrnst. & Heyn	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -						*Ns (****)*		h	Fest-Brom
Asperula montana Waldst. et Kit.	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -						*NS*		h	Fest-Brom

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Waldst. et Kit.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									