

Vascular flora of the Gölarđı Wildlife Protection Area and its surroundings (Terme/Samsun, Turkey)

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Abstract. The vascular flora of Gölarđı (Terme/Samsun, Turkey), which is one of the 135 wetlands in Turkey and has a Wildlife Protection Area status for conservation, was determined. During the floristic surveys, 387 taxa of 252 genera belonging to 86 families were recorded. Distribution rates of the species in terms of phytogeographic regions are as follows: 100 (25.83 %) Euro-Siberian, 23 (5.94 %) Mediterranean, 6 (1.55 %) Irano-Turanian, and 258 (66.6 %) pluriregional or unknown. There are three endemic species and the rate of endemism is 0.77. Considering all taxa in the study area, the largest families are *Asteraceae* (35), *Poaceae* (31), *Fabaceae* (25), *Brassicaceae* (22), and *Lamiaceae* (20) in terms of the number of taxa. The range of Raunkier's life forms is as follows: hemicryptophytes 34.6 %, therophytes 31.3 %, geophytes 16.3 %, phanerophytes 10.3 %, lianas 4.1 %, and chamaephytes 2.1 %.

Key words: Gölarđı, Samsun, Turkey, vascular flora

Introduction

The wetlands described as areas in which water level rises and declines permanently or seasonally (Odum & Barret 2008) are important as a source of primary productivity. They provide habitats to wildlife; enhance water quality and provide a place for recreation. As an interface between the terrestrial and aquatic environments (Mortsch 1998), wetlands are special ecosystems and attract attention by their peculiar properties. Wetland conservation is necessary because they are among the world's most productive environments upon which countless species of plants and animals depend for survival (Ramsar Convention 1971a). Due to the importance of wetlands, a global intergovernmental treaty on wetland conservation was ratified on 2nd February 1971, known as the Ramsar Convention. The mission of the Convention is "the conservation and wise use of all wetlands through local, regional and national actions and international

cooperation, as a contribution towards achieving sustainable development throughout the world" (Ramsar Convention 1971b). Therefore, there are an increasing number of studies into the wetlands and their functions across the world (Koyuncu & al. 2008).

There are 135 wetlands in Turkey that have gained international recognition. These wetlands account for 2 206 835 ha altogether (Koyuncu & al. 2008). The study area, which is almost entirely occupied by wetlands and mature bottomland hardwood forests is situated between 36°49'18"/37°01'19" E and 41°12'47"/41°20'32" N in the district of Terme, a town in Samsun province. Covering 3355 ha, the study area borders on river Terme in the East, Çarşamba district in the West, Black Sea in the North, and the Samsun-Ordu highway in the South (Fig. 1).

The Gölarđı (Terme/Samsun) Wildlife Protection Area, which is the study area, comprises substantially flooded plains in the eastern part of Yeşilirmak del-

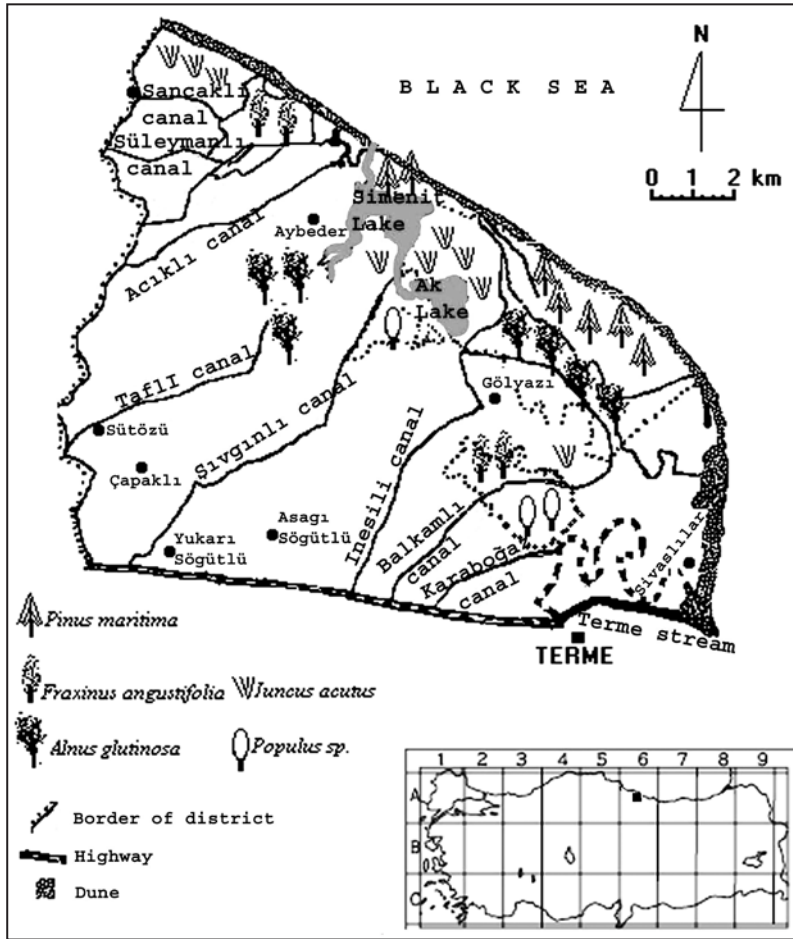


Fig. 1. Map of the study area.

ta and peaks into the lakes Simenit and Akgöl. Gölardı was declared Wildlife Protection Area in 1975, and subsequently Wildlife Development Area in 2005 (Samsun Province Governor's Office of Environment and Forestry Directorate 2006). The main part of the study area is defined as unique and endangered world class alluvial ecosystems (TÇSV 1991).

The study area formed by Quaternary hydromorphic soils and aluvial deposits (Akkan 1970) is influenced by the rainy and cool Mediterranean climate (Q: 121,3) and in Terme obtains marine first type of oceanic precipitation regime (Au., Wi., Su., Sp.) (Akman, 1990). The annual mean temperature is 13.8°C and the maximum mean temperature (M) is 27.7°C in July, while the minimum mean temperature (m) is 2.1°C in January and annual rainfalls amount to about 895.2 mm. A large part of the area is being used by the local people for agricultural purposes, with Forest Management plantations of *Populus* sp. and *Fraxinus angustifolia* in some sections and *Pinus maritima* on the sand dunes.

Owing to changes, especially in the edaphic factors and hydrological regime (depth of water table, dune stability, soil pH, soil organic matter, etc.), seven vegetation belts can be distinguished in the Gölardı region: *Pancratium maritimum* and *Hippophae rhamnoides* subsp. *caucasica* communities in the psammose succession stages, and *Sparganium erectum* subsp. *neglectum*, *Juncus acutus*, *Alnus glutinosa* subsp. *barbata*, *Fraxinus angustifolia* subsp. *oxycarpa*, and *Carpinus betulus* communities in the hydrosere succession stages.

In the study area situated eastwards of Yeşilirmak delta, which is one of the biggest deltas in Turkey, no specific floristic studies have been conducted earlier, other than collecting some plant samples (Davis 1965–1985; Seçmen & Leblebici 1997).

Material and methods

The plant specimens were collected on a weekly basis between February and October in 2004, 2005, 2006, 2008 and 2011

as materials for the research. All plant specimens are deposited at the Herbarium of the Faculty of the Arts and Science of Ondokuz Mayıs University (OMUB) after preparing them to meet the required standards. The family, genus, species, intraspecific taxa, and chorological elements of plant specimens were determined according to Davis (1965–1985), Davis & al. (1988), Güner & al. (2000), and then compared with those in OMUB. The life forms of species in the floristic list were determined according to Raunkiaer (Mueller-Dombois & Ellenberg 2002). The ombrothermic diagram of the study area was drawn according to Walter & al. (1975) and by using data provided by the Kızılot (Çarşamba) Meteorological Station (Fig. 2).

The list of presented taxa (see Appendix) follows the *Flora of Turkey* (Davis 1965–1985). After the species name and the authors' abbreviations are listed the number of localities, habitats, collection dates, herbarium accession numbers, phytogeographical regions, life forms, and threatened categories of the endemic and endangered species (in brackets) (Ekim & al.

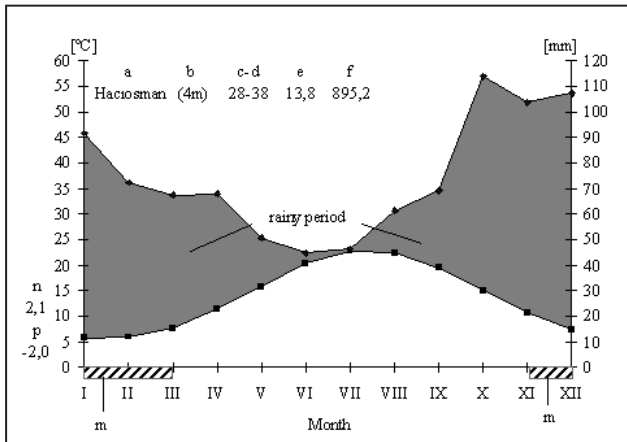


Fig. 2. Ombrothermic diagram of the Kızılot (Çarşamba/Samsun) Meteorological Station. **a:** station name, **b:** altitude (m), **c:** duration of temperature measurements, **d:** duration of precipitation measurement, **e:** mean annual temperature (°C), **f:** mean annual amount of precipitation (mm), **m:** months with an absolute minimum below 0 °C, **n:** mean daily minimum temperature of the coldest month (°C), **p:** absolute minimum temperature (°C).

2000). The authors' abbreviations of the species names are given according to Brummitt & Powell (2001). The cultivated and alien plants are marked with an asterisk in front of the species names. Our floristic results were compared with those in the studies carried out in nearby regions (Kılınç & Özkanca 1991; Kutbay & al. 1995; Karaer & al. 1997; Korkmaz & Engin 2001; Özen & Kılınç 2002; Korkmaz & al. 2008).

Here are the abbreviations used in the locations and the plant list: bulb.: bulbous; caesp.: caespitose (branched from near the base); Ch: chamaephytes; Cosm.: cosmopolitan; el.: elitto (tendrils); ele.: element; E. Medit.: East Mediterranean; EN: endangered; End.: Endemic; Euro-Sib.: Euro-Siberian; Eux.: Euxine; frut.: frutescent (woody); G: geophytes; GL: geophytic liana; H: hemicryptophytes; HL: hemicryptophytic liana; hyd.: hydrophytic; Hyr.-Eux.: Hyrcano-Euxine; Ir.-Tur.: Irano-Turanian; K Hyd Nat.: kormo-hydrophyta natantia (errant vascular hydrophyte); lc: least concern; LR: lower risk; Medit.: Mediterranean; MesP: Mesophanerophytes; MiP: Microphanerophytes; NP: Nanophanerophytes; OMUB: Herbarium of the Faculty of the Arts-Science of Ondokuz Mayıs University; PL: phanerophytic liana; r: radici (root climbers); rad.: radicigemma (root-budding); rept.: reptant (creeping); rhiz.: rhizome; ros.: rosette; scap.: scapose (single-stemmed); sem.: semi-rosette; st: strepano (winding climbers); succ.: succulent; suff.: suffrutescent (semi-woody); T: Therophytes; TL: therophytic lian; VP: vascular parasites; VU: vulnerable.

The stations of collected plant specimens

1. Aybeder village, *Alnus glutinosa* subsp. *barbata* forest, 3m
2. Cemetery of Özyurt village, *Carpinus betulus* forest, 5m
3. Gölyazı town, Çobanyatağı district, *Pinus maritima* plantation, 2m
4. Sancaklı village, *Hippophaë rhamnoides* subsp. *caucasica* community, 2m
5. Gölyazı town, *Fraxinus angustifolia* subsp. *oxycarpa* forest, 3m
6. Sancaklı village, *Juncus acutus* community, 2m
7. Environs of lake Akgöl, 2m
8. Özyurt village, 5m
9. Aybeder village, Haşlık Boğazı district, *Sparganium erectum* subsp. *neglectum* community, 4m
10. Terme-Gölyazı roadside, 5m
11. Sancaklı village dunes, 1m
12. Environs of Sancaklı village, 3m
13. Environs of Gölyazı town, 5m
14. Gölyazı town, environs of Çobanyatağı Bridge, 5m
15. Aybeder village, 3m
16. Özyurt village, Osman Bey district, 5m
17. Lake Simenit, Kabalı district, 3m
18. Sancaklı village, environs of Kumcağız district, 2m
19. Bafracalı village, Bastirikler district, *F. angustifolia* subsp. *oxycarpa* forest, 4m
20. Sancaklı village, *Pinus maritima* plantation, 2m
21. Gölyazı town, Derince locality, 4m
22. Between Sancaklı-Aybeder villages, 3m
23. Sancaklı village, *Pancratium maritimum* community, 1m.

Results and discussion

During the study period, a total of 387 species and intraspecific taxa have been determined, belonging to 86 families and 252 genera. Five of these taxa are alien to the flora of Turkey. These six taxa belong to *Pteridophyta*, while 381 taxa belong to *Spermatophyta*. In the flora of the study area, there is only one *Gymnospermae* species, which is an alien species, whereas 380 taxa belong to *Angiospermae*. Furthermore, 307 taxa belong to *Dicotyledones* and 73 taxa belong to *Monocotyledones*.

One hundred (25.83 %) out of 129 species are phytogeographically determined and belong to the Euro-Siberian floristic region, 23 (5.94 %) to the Mediterra-

nean and 6 (1.55%) to the Irano-Turanian, while the rest 258 (66.6%) are pluriregional or with yet undetermined floristic regions. Only three species recorded in the area are endemic, and the endemism rate is 0.77 (Table 1).

Since the study area falls into the Euxine Province of the Euro-Siberian floristic region and is exposed to the rainy-cool Mediterranean climate (Q: 121,3) and marine first type of oceanic precipitation regime, the above phytogeographic distribution of species in that area is quite expected. Due to the fact that the study area was formed in the Quaternary, the young delta plain (Akkan 1970) consists almost entirely of wetlands and floodplains, and other floristic region elements and endemism levels are low (Kılınc & Kutbay 2007). The phytogeographic distribution of species in the study area corresponds to that in Korkmaz & al. (2008), owing to the geographical proximity and ecological similarity of their study.

The richest families in terms of species and infraspecific taxa are *Asteraceae* (35), *Poaceae* (31), *Fabaceae* (25), *Brassicaceae* (22), and *Lamiaceae* (20). These families also include the largest number of species and infraspecific taxa in the *Flora of Turkey*. (Table 2).

Table 2 reveals a strong correspondence between the studies carried out by Korkmaz & al. (2008) and the present study. The main reason for the agreement with Korkmaz & al. (2008) is the closeness of study areas and the similar climatologic factors.

The life forms of the taxa according to Raunkiaer are given in Table 3. Of these taxa, 134 (34.6%) are hemicryptophytes, 121 (31.3%) therophytes, 63 (16.3%) geophytes, 40 (10.3%) phanerophytes, 16 (4.1%) lianas, 8 (2.1%) chamaephytes, 3 (0.8%) vascular parasites, and 2 (0.5%) is an errant vascular hydrophyte.

Raunkiaer's life forms spectrum acts as an indicator of the region or climate (Raunkiaer 1934). Within the life form range of the study area, dominance of hemicryptophytes, therophytes, geophytes, and phanerophytes can be explained by the abundant humid and forest terrains and by the fact that hemicryptophytes are also the most common life form in the temperate regions of the world (Daşkın & Kaynak 2010).

In some temperate floodplain forests, lianas constitute a conspicuous feature of wetland vegetation (Allen & al. 2005). Owing to the unique physical connection between lianas and trees, both environmen-

Table 1. Comparison with the phytogeographic distribution and endemism rates (%) of the species in the study area with studies conducted in nearby regions.

Name of study	Number of taxa	Euro-Sib..	Eux.	Hyr.- Eux.	Ir.-Tur.	Medit.	Cosm.	Pluriregional	Endemism
Present study	387	19.89	5.42	0.51	1.55	5.94	2.84	66.66	0.77
Korkmaz & al. (2008a)	355	26.19	10.42	2.53	3.09	6.76	1.97	48.70	1.40
Özen & Kılınc (2002)	306	22.23	4.90	1.30	4.90	11.44	–	55.23	4.29
Korkmaz & Engin (2001)	1016	12.40	3.83	0.68	11.31	9.74	0.98	50.29	10.43
Karaer & al. (1997)	82	6.0	–	–	–	3.70	2.43	87.87	–
Kutbay & al. (1995)	611	17.02	7.52	0.65	2.29	9.65	0.81	55.00	3.43
Kılınc & Özkanca (1991)	167	10.7	–	–	3.60	20.80	–	64.90	–

Table 2. Comparison of the major family rank with species number and rate (%) in the study area with some studies conducted in nearby regions.

Families	Present study	Korkmaz & al. (2008a)	Korkmaz & al. (2001)	Kutbay & al. (1995)	Özen & Kılınc (2002)	Karaer & al. (1997)	Kılınc & Özkanca (1991)
<i>Asteraceae</i>	35 / 9.04	35 / 9.85	108 / 10.6	71 / 11.62	20 / 6.53	12 / 14.6	13 / 14.07
<i>Poaceae</i>	31 / 8.01	32 / 9.01	67 / 6.59	42 / 6.82	15 / 4.90	11 / 12.2	19 / 13.0
<i>Fabaceae</i>	25 / 6.45	29 / 8.16	133 / 13.0	62 / 10.14	33 / 10.78	7 / 8.53	18 / 9.0
<i>Brassicaceae</i>	22 / 5.68	8 / 2.24	60 / 5.90	22 / 3.60	18 / 5.88	3 / 3.65	7 / 4.0
<i>Lamiaceae</i>	20 / 5.16	23 / 6.47	63 / 6.20	41 / 6.86	12 / 3.92	3 / 3.65	9 / 5.7
<i>Apiaceae</i>	16 / 4.13	8 / 2.25	38 / 3.74	20 / 3.27	8 / 2.61	3 / 3.65	3 / 1.79
<i>Caryophyllaceae</i>	14 / 3.61	11 / 3.09	43 / 4.23	16 / 2.61	8 / 2.61	3 / 3.65	5 / 4.0
<i>Polygonaceae</i>	14 / 3.61	4 / 1.12	12 / 1.18	7 / 1.14	5 / 1.63	1 / 1.21	4 / 2.2
<i>Rosaceae</i>	12 / 3.10	19 / 5.35	39 / 3.84	24 / 4.09	21 / 6.86	1 / 1.21	2 / 1.19
<i>Boraginaceae</i>	11 / 2.84	14 / 3.94	33 / 3.25	19 / 3.10	9 / 2.90	1 / 1.21	8 / 4.5
<i>Cyperaceae</i>	10 / 2.58	1 / 0.28	8 / 0.78	8 / 1.30	4 / 1.30	1 / 1.21	8 / 5.1

Table 3. Distribution of taxa according to life forms.

Life form	Number of species	Percentage (%)
Hemicryptophyte	134	34.6
Therophyte	121	31.3
Geophyte	63	16.3
Phanerophyte	40	10.3
Lianas	16	4.1
Chamaephyte	8	2.1
Vascular parasite	3	0.8
Errant vascular hydrophyte	2	0.5
Total	387	100

tal factors and characteristics of the host species can influence the distribution of lianas in forests (Leicht-Young & al. 2010). In the study area, winding herbaceous (*Tamus communis* L. subsp. *communis*; st GL) and woody lianas (twining) (*Periploca graeca* L. var. *graeca*; st PL frut) occur in the early successional stage forest, while climbing-by-tendrils lianas (*Smilax excelsa*; el PL frut) and root climbing lianas (*Hedera helix*; r PL frut) occur in the mid-successional and late successional stages, respectively.

Minuartia anatolica var. *anatolica*, *Arum euxinum* and *Epipactis pontica* species are endemics and have LR (lc) threat categories, according to Ekim & al. (2000). As rare taxa, *Myosotis sparsiflora*, *Leucojum aestivum* and *Galanthus rizehensis* have a VU threat category, while *Pancratium maritimum* has a EN threat category (Ekim & al. 2000).

Plant list

PTERIDOPHYTA

Sphenopsida

Equisetales

Equisetaceae

Equisetum arvense L., 1, in a forest, 07.05.2004, OMUB 6555; 3, on bank of drainage canal, 08.06.2008, OMUB 8630, G rhiz.

Polypodiales (Filicales)

Aspleniaceae

Phyllitis scolopendrium (L.) Newman, 2, in a forest, 23.07.2004, OMUB 6884, H ros.

Aspidiaceae

Polystichum setiferum (Forssk.) Moore ex Woynar, 1, in a forest, 09.07.2004, OMUB 6753, G rhiz.

Dryopteris filix-mas (L.) Schott, 2, in a forest, 23.07.2004, OMUB 6966, G rhiz.

Polypodiaceae

Polypodium vulgare L. subsp. *vulgare*, 2, in a forest, 17.06.2006, OMUB 7286, H ros.

Salviniaceae

Salvinia natans (L.) All., 9, on edge of pond, 7.8.2011, OMUB 8743, K Hyd Nat.

SPERMATOPHYTA

Gymnospermae

Pinaceae

**Pinus maritima* Mill., 3, on sandy soils, 03.10.09, OMUB 8732, Mes P scap.

Angiospermae

Dicotyledones (Magnoloipsida)

Ranunculaceae

Clematis vitalba Buch.-Ham. ex Steud., 4, in shrubs, 21.07.2004, OMUB 6788; 3, on *P. maritima*, 17.09.2008, OMUB 8663, el PL suff.

Ranunculus constantinopolitanus Steven, 5, in a forest, 02.04.2004, OMUB 6462; 2, in forest openings, 23.04.2006, OMUB 6423; H scap.

R. marginatus d'Urv. var. *marginatus*, 2, in open places, 07.05.2004, OMUB 6533; 1, at the edge of forest, 07.05.2004, OMUB 6552, T scap.

R. marginatus d'Urv. var. *trachycarpus* (Fisch. & C.A.Mey.) Elenevsky & Derv.-Sok., 5, on wet soils, 19.03.2006, OMUB 6567; 13, at roadsides, 08.06.2008, OMUB 8604, T scap.

R. arvensis L., 7, on moist soil, 07.05.2004, OMUB 6559, T scap.

R. sceleratus L., 7, in damp places, 16.04.2004, OMUB 6500, T scap.

R. ophioglossifolius Vill., 7, in open places, 07.05.2004, OMUB 6557; 5, in a forest, 19.03.2006, OMUB 7185, T scap.

R. ficaria L. subsp. *ficariiformis* Rouy & Foucaud, 8, at roadsides, 18.03.2004, OMUB 6432; 9, in a swamp, 07.08.2004, OMUB 6993, H scap.

R. trichophyllus Chaix, 5, in flooded places, 18.03.2004, OMUB 7233; 9, in a swamp, 23.07.2004, OMUB 6976; 7, in a lake, 23.04.2006, OMUB 7243, Hyd G rad.

Nymphaeaceae

Nymphaea alba L., 14, in a drainage canal, 28.05.2004, OMUB 8740, Hyd G rhiz.

Berberidaceae

- Berberis vulgaris* L., 3, at the edge of forest, 25.06.2004, OMUB 6638, N P caesp.
Epimedium pubigerum C. Morren & Decne., 2, in a forest, 23.07.2004, OMUB 6892; Eux. ele., G rhiz.

Papaveraceae

- Glaucium corniculatum* (L.) Rudolph subsp. *corniculatum*, 3, in open places, 25.06.2004, OMUB 6611, H scap.
Papaver lacerum Popov, 10, at roadside, 24.05.2008, OMUB 8590, T scap.

Brassicaceae (Cruciferae)

- Sinapis arvensis* L., 4, on sandy soils, 21.07.2004, OMUB 6777, T scap.
Raphanus raphanistrum L., 7, in meadows, 01.07.2006, OMUB 7362; 3, 17.09.2008, OMUB 8697. T scap.
Cakile maritima Scop., 20, on coastal dunes, 21.07.2004, OMUB 6639, T succ.
Thlaspi alliaceum L., 5, at roadside, 23.04.2006, OMUB 7238, T scap.
Capsella bursa-pastoris (L.) Medik., 2, in forest openings, 16.04.2004, OMUB 6481; 5, at the edge of forest, 19.03.2006, OMUB 7186; Cosm., T sem.
Alyssum strictum C.A.Mey., 20, on coastal dunes, 02.04.2004, OMUB 6476; Ir.-Tur. ele., T scap.
Clypeola jonthlaspi L., 20, on coastal dunes, 02.04.2004, OMUB 6450, T scap.
Erophila verna (L.) Chevall. subsp. *verna*, 20, on coastal dunes, 02.04.2004, OMUB 6438, T ros.
Arabis sagittata (Bertol.) DC., 7, in open places, 01.07.2006, OMUB 7359; 11, at coastal dune, 08.06.2008, OMUB 8629, H ros.
Nasturtium officinale R.Br., 5, at waterside, 21.07.2004, OMUB 6909, H scap.
Rorippa sylvestris (L.) Besser, 3, at waterside, 25.06.2004, OMUB 6632, hyd G rhiz.
Cardamine quinquefolia (M.Bieb.) Benth. & Hook.f. ex Schmalh. , 3, in wet meadows, 02.04.2004, OMUB 6454; Euro-Sib. ele., G rhiz.
C. tenera S.G.Gmel. ex C.A.Mey., 5, in moist habitat, 17.06.2006, OMUB 6448; Hyr.-Eux. ele., H scap.
C. uliginosa M.Bieb., 3, on sandy soils, 02.04.2004, OMUB 6475; 7, on moist soils, 27.03.2005, OMUB 7140, G rhiz.
C. pectinata Pall. ex DC., 5, in a forest, 17.06.2006, OMUB 7300; Euro-Sib. ele., T scap.
C. hirsuta L. 4, in a shrub, 27.03.2011, OMUB 8744; Cosm., T scap.

- Matthiola longipetala* (Vent.) DC. subsp. *bicornis* Ball, 2, in forest openings, 07.05.2004, OMUB 6528, T scap.
Maresia nana (DC.) Batt., 20, on coastal dunes, 27.03.2005, OMUB 6591, T scap.
Alliaria petiolata (M.Bieb.) Cavara & Grande, 2, in a forest, 23.04.2006, OMUB 7215, H scap.
Sisymbrium officinale (L.) Scop., 11, on coastal dunes, 19.05.2008, OMUB 8557, T scap.
S. loeselii L., 7, at open place, 22.05.2008, OMUB 8588, T scap.
Arabidopsis thaliana (L.) Heynh., 13, at roadsides, 16.04.2004, OMUB 6505, T scap.

Violaceae

- Viola odorata* L., 3, on sandy soil, 27.02.2004, OMUB 6422; 1, in a forest, 27.03.2005, OMUB 7133; 6, on wet soils, 27.03.2005, OMUB 7147, H ros.
V. sieheana W.Becker, 2, in a forest, 23.07.2004, OMUB 6900, H rept.

Portulacaceae

- Portulaca oleracea* L., 14, in meadows, 18.10.2008, OMUB 8721, T succ.

Caryophyllaceae

- Arenaria leptoclados* (Rchb.) Guss., 4, on sandy soils, 16.04.2004, OMUB 6494, T scap.
Minuartia anatolica Woronow . var. *anatolica*, 23, on coastal dunes, 16.04.2004, OMUB 6519; End., H caesp., LR (lc).
Stellaria media (L.) Vill. subsp. *media*, 14, 02.04.2004, OMUB 6444; 2, at an edge of forest, 27.03.2005, OMUB 7128; 7, in meadows, 23.04.2006, OMUB 7242, T rept.
S. postii (Holmboe) B.Slavík, V.Jarolímová & Chrték, 12, at roadsides, 23.07.2004, OMUB 7047, T rept.
Myosoton aquaticum (L.) Moench, 1, at waterside, 13.08.2006, OMUB 7374; 3, on sandy soils, 17.09.2008, OMUB 8699; Euro-Sib. ele., H caesp.
Cerastium anomalum Waldst. & Kit. ex Willd., 5, on wet soils, 23.04.2006, OMUB 7231, T caesp.
C. glomeratum Thuill., 1, in a forest, 23.04.2006, OMUB 7248; 13, at roadsides, 16.04.2004, OMUB 6506; Cosm., T scap.
C. brachypetalum Desp. Nyman, 14, at roadsides, 02.04.2004, OMUB 6472; 5, at an edge of forest, 27.03.2005, OMUB 7145, T scap.
C. pumilum Curt., 4, in sandy places, 16.04.2004, OMUB 6492, T scap.
Spergula arvensis L., 6, in wet places, 21.07.2004, OMUB 6801, Cosm., T scap.

- Dianthus zonatus* Fenzl var. *aristatus* (Boiss.) Reeve, 4, in sandy places, 21.07.2004, OMUB 6787, H scap.
- Silene alba* (Mill.) E.H.L.Krause subsp. *ericalycina* (Boiss.) Walters, 4, on sandy soils, 21.07.2004, OMUB 6780; 2, in open places, 24.09.2006, OMUB 6885; 3, on sandy soils, 17.09.2008, OMUB 8676, H scap.
- S. dichotoma* Ehrh. subsp. *dichotoma*, 4, in a shrub, 21.07.2004, OMUB 6781; 11, at coastal dune, 01.07.2006, OMUB 8553, T scap.
- S. conica* L., 4, in a shrub, 07.05.2004, OMUB 6540; 11, on coastal sand dunes, 19.05.2008, OMUB 8573, T scap.

Polygonaceae

- Polygonum salicifolium* Brouss. ex Willd., 1, in a forest, 31.08.2004, OMUB 7094; 5, in the forest, 24.09.2006, OMUB 7405, H scap.
- P. persicaria* L., 9, in muddy places, 31.08.2004, OMUB 7082; 7, in wet places, 24.09.2006, 7414; 1, in the forest, 24.09.2006, OMUB 7436, T scap.
- P. hydropiper* L., 1, at waterside, 11.10.2004, OMUB 7102; 5, in damp places, 24.09.2006, OMUB 7409, T scap.
- P. maritimum* L., 3, on sandy soils, 25.06.2004, OMUB 6608; 11, on coastal dunes, 21.07.2004, OMUB 6854, H rept.
- P. aviculare* L., 3, on sandy soils, 17.09.2008, OMUB 8680; 7, on damp soils, 18.10.2008, OMUB 8725, T scap.
- P. convolvulus* L., 3, on sandy soils, 17.09.2008, OMUB 8660. st TL.
- Rumex tuberosus* L. subsp. *tuberosus*, 2, in a forest, 07.05.2004, OMUB 6526; 7, in open places, 19.03.2006, OMUB 6606, G rad.
- R. patientia* L., 16, at roadsides, 23.07.2004, OMUB 6950; 5, in a forest, 01.07.2006, OMUB 7334, H scap.
- R. caucasicus* Rech.f., 14, on banks of drainage canal, 08.06.2008, OMUB 8627, H scap.
- R. crispus* L., 16, in open places, 25.06.2004, OMUB 6713, H scap.
- R. conglomeratus* Murray, 1, in a forest, 09.07.2004, OMUB 6760; 7, in open places, 27.05.2006, OMUB 7261, H scap.
- R. sanguineus* L., 2, in forest openings, 19.03.2006, OMUB 7039, H scap.
- R. hydrolapathum* Huds., 7, in a marsh, 25.06.2004, OMUB 6667; 9, in wet places, 21.07.2004, OMUB 6880; Euro-Sib. ele., hyd H scap.

- R. pulcher* L., 13, at roadsides, 08.06.2008, OMUB 8608, H scap.

Chenopodiaceae

- Chenopodium botrys* L., 3, on sandy soils, 17.09.2008, OMUB 8695, T scap.
- C. murale* L., 3, on sandy soils 17.09.2008, OMUB 8665; 7, in fallow fields, 18.10.2008, OMUB 8730, T scap.
- C. album* L. subsp. *album* var. *album*, 7, in fallow fields, 31.08.2004, OMUB 7052, T scap.
- Corispermum filifolium* A.K.Becker, 3, on sandy soils, 25.06.2004, OMUB 8736, T scap.
- Salsola ruthenica* Iljin, 11, on coastal dunes, 08.06.2008, OMUB 8569, T caesp.

Amaranthaceae

- Amaranthus chlorostachys* Willd., 7, in open places, 31.08.2004, OMUB 7055, T scap.
- A. patulus* Bert., 7, in a meadow, 11.10.2004, OMUB 7111; 3, on sandy soils, 17.09.2008, OMUB 8662, T scap.
- A. viridis* L., 1, in forest openings, 31.08.2004, OMUB 7074, T scap.

Phytolaccaceae

- Phytolacca americana* L., 2, in forest openings, 21.07.2004, OMUB 6882; 7, in open places, 13.08.2006, OMUB 7393; 10, in meadows, 21.07.2008, OMUB 8653, G rad.

Tamaricaceae

- Tamarix smyrnensis* Bunge, 11, on coastal dunes, 21.07.2004, OMUB 6874, N P caesp.

Clusiaceae (Guttiferae)

- Hypericum androsaemum* L., 2, in a forest, 26.06.2011, OMUB 8745; Euro-Sib. ele., N P caesp.
- H. perforatum* L., 3, in forest openings, 25.06.2004, OMUB 6633, H scap.

Malvaceae

- Hibiscus trionum* L., 15, at roadsides, 31.08.2004, OMUB 7091, T scap.
- Malva sylvestris* L., 12, at roadsides, 19.05.2008, OMUB 8551, H scap.
- Althaea officinalis* L., 13, in meadows, 09.07.2004, OMUB 6739; 15, at roadsides, 31.08.2004, OMUB 7089, H scap.

Linaceae

- Linum bienne* Mill., 6, on wet dunes, 19.03.2006, OMUB 7156; Medit. ele., H scap.

Geraniaceae

- Geranium lucidum* L., 14, in meadows, 02.04.2004,

- OMUB 6447; 11, on coastal dunes, 16.04.2004, OMUB 6488, T scap.
- G. purpureum* Vill., 2, in a forest, 23.04.2006, OMUB 7219, T scap.
- G. libanoticum* Schenk, 18, in open places, 25.06.2004, OMUB 6647, G rhiz.
- G. pyrenaicum* Burm.f., 12, at roadsides, 25.06.2004, OMUB 6648, H scap.
- Erodium cicutarium* (L.) L'Hér. subsp. *cicutarium*, 18, on sandy soils, 19.05.2008, OMUB 8572, T scap.
- E. acaule* Bech. & Thell., 14, at roadsides, 02.04.2004, OMUB 6449; 12, at roadsides, 08.03.2008, OMUB 8540; *Medit. ele.*, H ros.
- Oxalidaceae**
- Oxalis corniculata* L., 13, in open places, 24.09.2006, OMUB 7406; *Cosm.*, H rept.
- Zygophyllaceae**
- Tribulus terrestris* L., 3, on sandy soils, 17.09.2008, OMUB 8682, T rept.
- Simaroubaceae**
- **Ailanthus altissima* (Mill.) Swingle, 15, at roadsides, 17.09.2008, OMUB 8709, Mi P scap.
- Aceraceae**
- Acer platanoides* L., 2, in a forest, 23.07.2004, OMUB 6934; *Euro-Sib. ele.*, Mes P scap.
- A. campestre* L. subsp. *campestre*, 2, in forest openings, 23.07.2004, OMUB 6893, Mes P scap.
- Rhamnaceae**
- Paliurus spina-christi* Mill., 3, at the edge of forest, 25.06.2004, OMUB 6628, Mi P caesp.
- Frangula alnus* Mill. subsp. *alnus*, 5, in a forest, 09.07.2004, OMUB 6728; *Euro-Sib. ele.*, Mi P caesp.
- Aquifoliaceae**
- Ilex colchica* Pojark., 2, in a forest, 23.07.2004, OMUB 6886; *Eux. ele.*, Mi P caesp.
- Celastraceae**
- Euonymus latifolius* Mill. subsp. *latifolius*, 19, in a forest, 25.06.2004, OMUB 6720; *Euro-Sib. ele.*, Mi P scap.
- Fabaceae (Leguminosae)**
- Sophora alopecuroides* L. var. *alopecuroides*, 11, on coastal dunes, 19.03.2006, OMUB 6868, G rhiz.
- **Robinia pseudoacacia* L., 14, at roadsides, 19.05.2008, OMUB 8577, Mes P scap.
- Galega officinalis* L., 16, at fieldsides, 23.07.2004, OMUB 6709; 17, in open places, 07.08.2004, OMUB 6983; *Euro-Sib. ele.*, H scap.
- Glycyrrhiza echinata* L., 17, on moist soils, 07.08.2004, OMUB 6986; 3, in open places, 17.09.2008, OMUB 8700, Ch suff.
- Vicia cracca* L. subsp. *cracca*, 1, in a forest, 10.7.2011, OMUB 8746; *Euro-Sib. ele.*, HL.
- V. sativa* L. subsp. *sativa*, 2, at the edge of forest, 27.05.2006, OMUB 7254, el TL.
- V. nigra* Steud., 1, in a forest, 07.05.2004, OMUB 6553; 6, on moist soils, 19.03.2006, OMUB 7161; 7, on moist soils, 25.05.2008, OMUB 8589, el TL.
- Lens nigricans* (M.Bieb.) Godr., 5, in a forest, 01.07.2006, OMUB 7337, T scap.
- Lathyrus palustris* L. subsp. *palustris*, 2, at waterside, 31.08.2004, OMUB 7077; *Euro-Sib. ele.*, el HL.
- Trifolium repens* L. var. *repens*, 5, in open places, 19.03.2006, OMUB 7188; 14, at roadsides, 08.06.2008, OMUB 8605, H rept.
- T. hybridum* L. var. *hybridum*, 16, at a roadside, 07.08.2004, OMUB 6706, H rept.
- T. nigrescens* Viv. subsp. *nigrescens*, 7, in meadows, 07.05.2004, OMUB 6558; 3, at the edge of forest, 28.05.2004, OMUB 6569, T scap.
- T. campestre* Schreb., 11, on coastal dunes, 07.05.2004, OMUB 6545; 6, in open places, 19.03.2006, OMUB 7162, T scap.
- T. fragiferum* L. var. *fragiferum*, 19, in a meadow, 25.06.2004, OMUB 6719; 2, at the edge of forest, 27.05.2006, OMUB 6937, H rept.
- T. tomentosum* L., 23, on coastal dunes, 07.05.2004, OMUB 6539; 6, in open places, 28.05.2004, OMUB 6584; 5, at the edge of forest, 19.03.2006, OMUB 7189, T rept.
- Melilotus officinalis* Lam., 2, at the edges of forest, 25.06.2004, OMUB 6690; 3, on sandy soils, 17.09.2008, OMUB 8679, H scap.
- Medicago lupulina* L., 15, at roadsides, 28.05.2004, OMUB 6577; 2, at the edge of forest, 23.07.2004, OMUB 6912, H scap.
- M. x varia* Martyn, 4, in a shrub, 09.07.2004, OMUB 6773, H scap.
- M. polymorpha* L. var. *vulgaris* (Benth.) Shinnars, 2, in a forest opening, 07.05.2004, OMUB 6546, T scap.
- M. arabica* (L.) Huds., 2, at the edge of forest, 07.05.2004, OMUB 6532; 7, in a meadow, 28.05.2004, OMUB 6601, T scap.
- M. marina* L., 23, on coastal dunes, 16.04.2004, OMUB 7224; Ch rept.
- M. littoralis* Loisel. var. *littoralis*, 12, at roadsides,

02.04.2004, OMUB 6455; 23, on coastal dunes,
17.06.2006, OMUB 6864, T scap.

Dorycnium graecum (L.) Ser., 6, in open places,
25.06.2004, OMUB 6646; Eux. ele., H scap.

Lotus corniculatus L. var. *corniculatus*, 1, at the edge
of forest, 25.06.2004, OMUB 6674; 7, in meadows,
13.08.2006, OMUB 7364, H scap.

L. corniculatus L. var. *tenuifolius* L., 1, at the edge of
forest, 26.6.2011, OMUB 8747, H caesp.

Rosaceae

Prunus ×domestica L., 1, at the edge of forest,
9.07.2004, OMUB 6763; 5, in open places,
23.07.2004, OMUB 7044, Mi P scap.

Rubus sanctus Schreb., 5, in open places, 25.06.2004,
OMUB 6619; 15, at roadsides, 07.08.2004, OMUB
7001, N P caesp.

R. discolor Weihe & Nees, 16, at roadsides, 08.06.2008,
OMUB 8624, N P caesp.

R. canescens DC. var. *glabratus* (Godr.) P.H.Davis &
Meikle, 2, in a forest, 31.08.2004, OMUB 6925;
1, at the edge of forest, 11.10.2004, OMUB 6668;
Euro-Sib. ele., N P caesp.

Potentilla recta L. Grup B, 1, at the edge of forest,
9.07.2004, OMUB 6766; 6, on damp soils,
21.07.2004, OMUB 6799, H scap.

P. reptans L., 5, at the edge of forest, 25.06.2004,
OMUB 6623; 16, at roadsides, 25.06.2004, OMUB
6715; 6, in wet meadows, 21.07.2004, OMUB
6810, H ros.

Geum urbanum L., 1, in a forest, 09.07.2004, OMUB
6750; 2, in a forest, 23.07.2004, OMUB 6898;
Euro-Sib. ele., H scap.

Rosa canina L., 5, in a forest, 13.08.2006, OMUB 7390;
15, in open places, 19.05.2008, OMUB 8585; 13, in
sandy places, 18.10.2008, OMUB 8714, N P caesp.

Pyracantha coccinea M. Roem., 15, at a drainage canal
sides, 21.07.2008, OMUB 8646, Mi P caesp.

Crataegus curvisepala Lindm., 5, in a forest,
16.04.2004, OMUB 6510, Mi P scap.

C. monogyna Jacq. subsp. *monogyna*, 18, at roadsides,
31.08.2004, OMUB 7093, Mi P scap.

Sorbus umbellata Fritsch var. *umbellata*, 2, in a forest,
23.07.2004, OMUB 6892, Mes P scap.

Myrtaceae

**Eucalyptus camaldulensis* Dehnh., 11, on coastal
dunes, 19.05.2008, OMUB 8574, Mes P scap.

Lythraceae

Lythrum salicaria L., 16, at waterside, 23.07.2004,

OMUB 7011; 13, on banks of a drainage canal,
21.07.2008, OMUB 8648; Euro-Sib. ele., H scap.

Onagraceae

Circaea lutetiana L., 19, in a forest, 09.07.2004,
OMUB 6725; 18, in wet meadows, 09.07.2004,
OMUB 6732, G rhiz.

Ludwigia palustris (L.) Elliott, 9, at the banks of pond,
7.8.2011, OMUB 8748; hyd H rept.

Epilobium hirsutum L., 6, in wet meadows, 21.07.2004,
OMUB 6818; 14, at roadsides, 18.10.2008, OMUB
8717, H scap.

E. parviflorum Schreb., 5, in a forest, 09.07.2004,
OMUB 6729; 1, at the edge of forest, 24.09.2006,
OMUB 7440, H scap.

E. minutiflorum Hausskn., 16, at roadsides,
23.07.2004, OMUB 6949; Ir.-Tur. ele., H scap.

Haloragidaceae

Myriophyllum spicatum L., 7, in a drainage canal,
07.08.2004, OMUB 6991; hyd G rad.

Apiaceae (Umbelliferae)

Hydrocotyle vulgaris L., 9, in muddy places,
07.08.2004, OMUB 6996, hyd G rad.

Sanicula europaea L., 2, in a forest, 01.07.2006,
OMUB 7321; Euro-Sib. ele., H scap.

Eryngium maritimum L., 23, on coastal dunes,
25.06.2004, OMUB 6615, G rhiz.

E. creticum Lam., 13, in open places, 01.07.2006,
OMUB 7339; 10, at roadsides, 21.07.2008, OMUB
8651; East Medit. ele., H scap.

Chaerophyllum byzantinum Boiss., 13, at roadside,
23.07.2004, OMUB 6883; Eux. ele., H scap.

C. aureum L., 17, in wet meadows, 07.08.2004, OMUB
6981, H scap.

Oenanthe pimpinelloides L., 3, in a forest, 25.06.2004,
OMUB 6634; 10, in a meadow, 21.07.2008,
OMUB 8640, H scap.

O. silaifolia M.Bieb., 7, in moist places, 25.06.2004,
OMUB 6666; 1, in a moist habitat, 09.07.2004,
OMUB 6757, H scap.

Apium graveolens L., 7, in moist places, 01.07.2006,
OMUB 7361, H scap.

A. nodiflorum (L.) Lag., 5, in moist places, 23.07.2004,
OMUB 7045; 21, in wet meadows, 17.09.2008,
8708, H scap.

Torilis nodosa (L.) Gaertn., 16, in open places,
25.06.2004, OMUB 6712; 11, on coastal dunes,
19.05.2008, OMUB 8571, T scap.

- T. arvensis* (Huds.) Link subsp. *arvensis*, 10, in open places, 21.07.2008, OMUB 8652, T scap.
- Caucalis platycarpus* L. 11, on coastal dunes, 5.6.2011, OMUB 8749; T scap.
- Daucus carota* L., 4, on sandy soils, 01.07.2006, OMUB 7367; 13, in the environs of a drainage canal, 21.07.2008, OMUB 8636, T scap.
- D. broteri* Ten., 3, in open places, 03.10.2009, OMUB 8735; *Medit. ele.*, T scap.
- Pseudorlaya pumila* Grande, 12, at roadsides, 25.06.2004, OMUB 6685; 23, on coastal dunes, 19.05.2008, OMUB 6588; *Medit. ele.*, T scap.
- Araliaceae**
- Hedera helix* L., 2, on *Carpinus betulus*, 17.06.2006, OMUB 7268; 13, on walls, 09.07.2004, OMUB 6767; 4, in a shrub, 21.07.2004, OMUB 6775, r PL frut.
- H. colchica* (K.Koch) K.Koch, 1, on *Alnus glutinosa* subsp. *barbata*, 02.04.2004, OMUB 6466; *Eux. ele.*, r PL frut.
- Cornaceae**
- Cornus sanguinea* L. subsp. *australis* (C.A.Mey.) Jáv., 1, in a forest, 25.06.2004, OMUB 6672; 2, in forest openings, 08.06.2008, OMUB 8622; *Euro-Sib. ele.*, Mi P scap.
- Caprifoliaceae**
- Sambucus ebulus* L., 1, in a forest, 11.10.2004, OMUB 7098; 7, in open places, 24.09.2006, OMUB 7419; *Euro-Sib. ele.*, G rhiz.
- S. nigra* L., 2, in a forest, 25.06.2004, OMUB 6696; *Euro-Sib. ele.*, Mi P scap.
- Viburnum opulus* L., 13, in open places, 21.07.2008, OMUB 8647; *Euro-Sib. ele.*, Mi P scap.
- Dipsacaceae**
- Dipsacus laciniatus* L., 16, at roadside, 23.07.2004, OMUB 6972, H scap.
- Asteraceae (Compositae)**
- Sigesbeckia orientalis* L., 7, at roadside, 11.10.2004, OMUB 7114, T scap.
- Bidens cernua* L., var. *cernua*, 21, at roadside, 17.09.2008, OMUB 8707, T scap.
- B. tripartita* L., 1, in a forest, 24.09.2006, OMUB 7441; 13, in open places, 17.09.2008, OMUB 8661; 21, at roadside, 17.09.2008, OMUB 8706, T scap.
- **B. bipinnata* L., 3, in open places, 03.10.2009, OMUB 8737, T scap.
- Xanthium spinosum* L., 13, in open places, 17.09.2008, OMUB 8666; 7, in fallow fields, 18.10.2008, OMUB 7049; T scap.
- X. strumarium* L. subsp. *strumarium*, 16, at roadside, 23.07.2004, OMUB 7018; 7, in open places, 24.09.2006, OMUB 7417; 14, in fallow fields, 17.09.2008, OMUB 8667, T scap.
- Inula graveolens* (L.) Jacq., 7, on moist soil, 31.08.2004, OMUB 7056; 16, at roadside, 24.09.2006, OMUB 7427; 3, at the edge of forest, 17.09.2008, OMUB 8693; *Medit. ele.*, T scap.
- Pulicaria dysenterica* (L.) Bernh., 9, in a muddy place, 31.08.2004, OMUB 7072; 5, at watersides, 13.08.2006, OMUB 7392; 21, on wet soil, 17.09.2008, OMUB 8705, H scap.
- Logfia arvensis* (L.) Holub, 6, in a meadow, 27.03.2005, OMUB 6816, T scap.
- Conyza canadensis* (L.) Cronquist, 21, at roadsides, 03.10.2009, OMUB 8741, T scap.
- Bellis perennis* L., 8, in a meadow, 18.03.2004, OMUB 6431; 13, at roadsides, 17.06.2006, OMUB 7298; *Euro-Sib. ele.*, H ros.
- Senecio vernalis* Waldst.& Kit., 11, on coastal dunes, 17.06.2006, OMUB 7152, T scap.
- Eupatorium cannabinum* L., 15, at the bank of a drainage canal, 31.08.2004, OMUB 7083; 13, in moist places, 18.10.2008, OMUB 8716; *Euro-Sib. ele.*, H scap.
- Anthemis cotula* L., 7, at roadsides, 25.06.2004, OMUB 6652; 1, at the edge of forest, 01.07.2006, OMUB 7257; 12, at roadsides, 19.05.2008, OMUB 8559, T scap.
- A. tinctoria* L. var. *tinctoria*, 4, on sandy soils, 09.07.2004, OMUB 6772; 14, at the banks of a drainage canal, 21.07.2008, OMUB 8642, H scap.
- Otanthus maritimus* (L.) Hoffmanns. & Link, 6, in open places, 21.07.2004, OMUB 6797; 23, on coastal dunes, 13.08.2006, OMUB 7377; *Medit. ele.*, Ch suff.
- Arctium minus* (Hill) Bernh. subsp. *pubens* (Bab.) Arènes, 17, in a meadow, 07.08.2004, OMUB 6985; 7, in open places, 31.08.2004, OMUB 7064; *Euro-Sib. ele.*, H scap.
- Cirsium vulgare* (Savi) Ten., 16, at roadsides, 23.07.2004, OMUB 6973; 14, in open places, 17.09.2008, OMUB 8686, H scap.
- C. arvense* (L.) Scop. subsp. *arvense*, 1, at the edge of forest, 11.10.2004, OMUB 7104, G rad.
- Centaurea iberica* Trevir. ex Spreng., 5, in forest openings, 28.05.2004, OMUB 6560; 7, in

- meadows, 01.07.2006, OMUB 7358; 10, at roadsides, 21.07.2008, OMUB 8650, T scap.
- Echinops viscosus* DC. subsp. *bithynicus* (Boiss.) Rech., 4, on coastal dunes, 21.07.2004, OMUB 6878, H scap.
- Scolymus hispanicus* L., 20, on coastal dunes, 25.06.2004, OMUB 6612; Medit. ele., H caesp.
- Cichorium intybus* L., 7, in meadows, 31.08.2004, OMUB 7057; 10, at roadsides, 21.07.2008, OMUB 8639, H scap.
- C. glandulosum* Boiss. & Huet, 16, in open places, 23.07.2004, OMUB 7016; Ir.-Tur. ele., T scap.
- Picris hieracioides* L., 16, in open places, 13.08.2006, OMUB 7384; Euro-Sib. ele., H scap.
- P. strigosa* M.Bieb. subsp. *strigosa*, 1, in open places, 31.08.2004, OMUB 7073; Ir.-Tur. ele., H scap.
- Sonchus asper* (L.) Hill subsp. *glaucescens* (Jord.) Ball, 16, in open places, 25.06.2004, OMUB 6714; 2, at the edge of forest, 31.08.2004, OMUB 7078, T scap.
- Scariola viminea* (L.) F.W.Schmidt, 5, in a forest, 24.09.2006, OMUB 7404, H scap.
- Lapsana communis* L. subsp. *intermedia* (M.Bieb.) Hayek, 5, in a forest, 28.05.2004, OMUB 6571; 2, in the forest, 19.03.2006, OMUB 7200, T scap.
- Taraxacum serotinum* Poir., 14, at roadsides, 02.04.2004, OMUB 6441; 5, in a forest, 24.09.2006, OMUB 7403, H ros.
- Crepis foetida* L. subsp. *foetida*, 20, on coastal dunes, 25.06.2004, OMUB 6682; 11, on coastal dunes, 17.06.2006, OMUB 7308, T scap.
- C. sancta* (L.) Babç., 6, in a meadow, 21.07.2004, OMUB 6804, T scap.
- C. setosa* Haller f., 20, on coastal dunes, 25.06.2004, OMUB 6631; 4, on coastal dunes, 07.05.2004, OMUB 6542; Euro-Sib. ele.; T scap.
- **Tagetes minuta* L., 14, at roadsides, 03.10.2009, OMUB 8738, T scap.
- Campanulaceae**
- Campanula glomerata* L., 2, in a forest, 23.07.2004, OMUB 6693; Euro-Sib. ele., H scap.
- Primulaceae**
- Primula vulgaris* Huds. subsp. *sibthorpii* (Hoffmanns.) W.W.Sm. & Forrest, 5, in a forest, 02.04.2004, OMUB 6421; 2, in a forest, 08.03.2008, OMUB 8545; Eux. ele., G rhiz.
- Cyclamen coum* Mill. var. *coum*, 12, at roadsides, 27.02.2004, OMUB 6425; 14, at roadsides, 18.10.2008, OMUB 8718, G bulb.
- Lysimachia vulgaris* L., 12, at roadsides, 23.07.2004, OMUB 6922; 14, in meadows, 21.07.2008, OMUB 8645, H scap.
- L. verticillaris* Spreng., 19, in a forest, 09.07.2004, OMUB 6727; 5, in a forest, 01.07.2006, OMUB 7335; Hyr.-Eux. ele., H scap.
- L. dubia* Willd. 1, on damp soils, 16.7.2011, OMUB 8751, T scap.
- L. nummularia* L., 5, on damp soils, 01.07.2006, OMUB 7341; Euro-Sib. ele., H rept.
- Anagallis arvensis* L. var. *arvensis*, 6, in meadows, 13.08.2006, OMUB 7382; 11, on coastal dunes, 01.07.2006, OMUB 7350, T rept.
- Samolus valerandi* L., 6, on wet dunes, 21.07.2004, OMUB 6809; 7, in a moist habitat, 31.08.2004, OMUB 7069; Cosm. H caesp.
- Ebenaceae**
- Diospyros lotus* L., 2, in a forest, 23.07.2004, OMUB 6911, Mes P scap.
- Oleaceae**
- Fraxinus angustifolia* Vahl subsp. *oxycarpa* (Willd.) Franko & Rocha Alfonso, 18, in a moist habitat, 09.07.2004, OMUB 6735; 13, at roadsides, 23.04.2006, OMUB 7235; Euro-Sib. ele., Mes P scap.
- Ligustrum vulgare* L., 14, at roadsides, 17.09.2008, OMUB 8658; Euro-Sib. ele., N P scap.
- Apocynaceae**
- Vinca herbacea* Waldst. & Kit, 13, at roadsides, 16.04.2004, OMUB 6507; 2, in a forest, 17.06.2006, OMUB 7276; 14, at roadsides, 19.05.2008, OMUB 8578, H rept.
- Asclepiadaceae**
- Periploca graeca* L. var. *graeca*, 1, on *A. glutinosa* subsp. *barbata*, 28.05.2004, OMUB 6574; 2, on *C. betulus*, 09.07.2004, OMUB 6743; 4, on *H. rhamnoides* subsp. *caucasica*, 21.07.2004, OMUB 6792; East Medit. ele., st PL frut.
- Cynanchum acutum* L. subsp. *acutum*, 6, at open place, 21.07.2004, OMUB 6805; 14, in an open place, 17.09.2008, OMUB 8674, st PL suff.
- Vincetoxicum scandens* Sommier & Levier, 2, in a forest, 14.8.2011, OMUB 8752, st HL.
- Cionura erecta* (L.) Griseb., 4, on coastal dunes, 23.07.2004, OMUB 6793; East Medit. ele., Ch suff.
- Gentianaceae**
- Blackstonia perfoliata* (L.) Huds. subsp. *perfoliata*, 6, in meadows, 21.07.2004, OMUB 6819, T sem.

Centaureum erythraea Rafn subsp. *erythraea*, 11, on coastal dunes, 21.07.2004, OMUB 6829; 1, in forest opening, 01.07.2006, OMUB 7343; Euro-Sib. ele., H scap.

Convolvulaceae

Calystegia soldanella (L.) R.Br., 6, on coastal dunes, 21.07.2004, OMUB 6815, G rhiz.

C. sepium (L.) R.Br. subsp. *sepium*, 6, in meadows, 21.07.2004, OMUB 6844; 1, in a forest, 13.08.2006, OMUB 7372; 8, at roadsides, 08.06.2008, OMUB 8621, st GL.

C. silvatica (Kit.) Griseb., 2, in a forest, 25.06.2004, OMUB 6702, st GL.

Cuscutaceae

Cuscuta campestris Yunck., 11, parasite on *X. strumarium*, 25.06.2004, OMUB 6641, VP.

Boraginaceae

Myosotis arvensis (L.) Hill subsp. *arvensis*, 2, in a forest, 17.06.2006, OMUB 7271; Euro-Sib. ele., T scap.

M. sylvatica Hoffm. subsp. *cyanea* Vestergr., 1, in a forest, 25.06.2004, OMUB 6670; 16, 25.06.2004, OMUB 6710, H scap.

M. lithospermifolia Hornem., 11, on coastal dunes, 27.03.2005, OMUB 7155; 4, on sandy soils, 16.04.2004, OMUB 6493; 10, at roadsides, 19.05.2008, OMUB 8600, H sem.

M. laxa Lehm. subsp. *caespitosa* (Schultz) Hyl. ex Nordh., 1, in a forest, 28.05.2004, OMUB 6576, H scap.

M. sparsiflora J.C.Mikan ex Pohl, 16, in meadows, 23.07.2004, OMUB 6974; Euro-Sib. ele., T scap, VU.

Solenanthes stamineus J.F.Macbr., 2, in a forest, 17.06.2006, OMUB 7285, H caesp.

Cynoglossum officinale L., 5, in open places, 28.05.2004, OMUB 6562; 11, at roadsides, 19.03.2006, OMUB 7181; Euro-Sib. ele., H scap.

C. creticum Mill., 16, at roadsides, 23.07.2004, OMUB 7017; 10, in open places, 27.05.2008, OMUB 8595, H scap.

Echium angustifolium Mill., 12, at roadsides, 19.05.2008, OMUB 8575; East Medit. ele., H scap.

Trachystemon orientalis D.Don, 14, in meadows, 02.04.2004, OMUB 6460; 2, in a forest, 23.07.2004, OMUB 6957; Eux. ele., G rhiz.

Solanaceae

Solanum nigrum L. subsp. *nigrum*, 2, in open

places, 23.07.2004, OMUB 6887; 7, at roadsides, 11.10.2004, OMUB 7116; Cosm., T scap.

S. dulcamara L., 6, on wet dunes, 25.06.2004, OMUB 6649; 1, in open places, 13.08.2006, OMUB 7369; 3, on sandy soil, 17.09.2008, OMUB 8671; Euro-Sib. ele., H caesp.

Physalis alkekengi L., 3, in open places, 17.09.2008, OMUB 8668, H scap.

Datura stramonium L., 7, in open places, 31.08.2004, OMUB 7066; 3, at roadsides, 18.10.2008, OMUB 8715; Cosm., T scap.

Hyoscyamus niger L., 7, in meadows, 18.10.2008, OMUB 8731, H scap.

Scrophulariaceae

Verbascum thapsus L., 4, on sandy soils, 01.07.2006, OMUB 7368; Euro-Sib. ele., H sem.

Scrophularia scopolii Hoppe ex Pers. var. *scopolii*, 7, at roadsides, 25.06.2004, OMUB 6665, H scap.

S. scopolii Hoppe ex Pers. var. *adenocalyx* (Sommier & Levier) Grau, 2, in a forest, 23.07.2004, OMUB 6899; 7, in meadows, 27.05.2006, OMUB 7265; Eux. ele., H scap.

Veronica persica Poir., 16, in meadows, 25.06.2004, OMUB 6716; 2, in a forest, 27.03.2005, OMUB 7129; 14, at roadsides, 19.05.2008, OMUB 8583, Tscap.

V. anagallis-aquatica L., 16, at watersides, 25.06.2004, OMUB 6708, H scap.

V. magna M.A.Fisch., 2, in a forest, 23.07.2004, OMUB 6931; Eux. ele., G rhiz.

V. montana L., 2, in a forest, 19.03.2006, OMUB 7202; Euro-Sib. ele., H rept.

Odontites verna (Bellardi) Dumort. subsp. *serotina* (Dumort.) Corb., 1, in a forest, 09.07.2004, OMUB 6749; Euro-Sib. ele., T scap.

Parentucellia latifolia (L.) Caruel subsp. *latifolia*, 6, on wet dunes, 19.03.2006, OMUB 7157; 12, at roadsides, 19.05.2008, OMUB 8556; Medit. ele., T scap.

Orobanchaceae

Orobanche cernua Loefl., 7, at wet roadsides, 19.05.2008, OMUB 8586, VP.

O. alba Stephan ex Willd., 11, in wet sandy places, 28.05.2004, OMUB 6607; 2, in a forest, 23.07.2004, 6956, VP.

Verbenaceae

Phyla nodiflora (L.) Greene, 5, in a moist habitat, 23.07.2004, OMUB 6965; H rept.

Verbena officinalis L., 16, at roadsides, 23.07.2004, OMUB 7015; 7, in meadows, 24.09.2006, OMUB 7418; H scap.

Vitex agnus-castus L., 11, on coastal dunes, 13.08.2006, OMUB 6808; Medit. ele., N P caesp.

Lamiaceae (Labiatae)

Ajuga reptans L., 8, in a hazelnut plantation, 16.04.2004, OMUB 6508; 5, in a forest, 23.04.2006, OMUB 7230; Euro-Sib. ele., G rhiz.

Teucrium chamaedrys L. subsp. *chamaedrys*, 12, in open places, 23.07.2004, OMUB 6916; Euro-Sib. ele., Ch suff.

Scutellaria galericulata L., 15, in a moist habitat, 07.08.2004, OMUB 7006, H scap.

Lamium amplexicaule L., 2, in forest openings, 18.03.2004, OMUB 6429; Euro-Sib. ele., T scap.

L. purpureum L. var. *purpureum*, 7, in meadows, 16.04.2004, OMUB 6499; 2, in a forest, 23.04.2006, OMUB 7222; Euro-Sib. ele., T scap.

Stachys germanica L. subsp. *bithynica* (Boiss.) R.Bhattacharjee, 2, in a forest, 25.06.2004, OMUB 6686; 5, in a forest, 01.07.2006, OMUB 7333; Euro-Sib. ele., H scap.

S. sylvatica L., 1, in a forest, 28.05.2004, OMUB 6575; 2, in forest openings 09.07.2004, 6746; Euro-Sib. ele., H scap.

S. palustris L., 17, on wet soils, 07.08.2004, OMUB 6992; Euro-Sib. ele., H scap.

S. iberica M.Bieb. subsp. *stenostachya* (Boiss.) Rech., 11, in sandy places, 08.06.2008, OMUB 8620; Ir.-Tur. ele., H scap.

S. maritima L., 23, on coastal dunes, 09.07.2004, OMUB 8599; Medit. ele., H scap.

Glechoma hederacea L., 12, in a forest, 02.04.2004, OMUB 6442; 7, in wet places, 23.04.2006, OMUB 7241; Euro-Sib. ele., H rept.

Prunella vulgaris L., 1, at the edge of forest, 09.07.2004, OMUB 6759; 5, in forest openings, 24.09.2006, OMUB 7407; 13, in fallow fields, 21.07.2008, OMUB 8631; Euro-Sib. ele., H scap.

Satureja hortensis L., 11, on coastal dune, 24.09.2006, OMUB 7420, T scap.

Clinopodium vulgare L. subsp. *vulgare*, 15, at roadsides, 31.08.2004, OMUB 7088; 5, at the edge of forest, 24.09.2006, OMUB 7410, H scap.

Mentha pulegium L., 9, in moist places, 07.08.2004, OMUB 6997; 5, in a forest, 13.08.2006, OMUB 7391; 10, at wet roadsides, 21.07.2008, OMUB 8638, H scap.

M. aquatica L., 9, at watersides, 31.08.2004, OMUB 7079; 14, in wet places, 17.09.2008, OMUB 8690, H scap.

M. longifolia (L.) Huds. subsp. *longifolia*, 6, on moist soil, 21.07.2004, OMUB 6840; Eux. ele., H scap.

Lycopus europaeus L., 6, on moist soil, 21.07.2004, OMUB 6795; 1, at watersides, 24.09.2006, OMUB 7437; 13, in wet meadows, 17.09.2008, OMUB 8692; Euro-Sib. ele., H scap.

Salvia forskahlei L., 1, in a forest, 1.07.2006, OMUB 7346; Eux. ele., H scap.

S. verbenaca L., 12, at roadsides, 19.05.2008, OMUB 8552; Medit. ele., H scap.

Plantaginaceae

Plantago major L. subsp. *major*, 5, at the edge of forest, 24.09.2006, OMUB 7408; 7, in open places, 18.10.2008, OMUB 8726, H ros.

P. coronopus L. subsp. *coronopus*, 18, on sandy soils, 21.07.2008, OMUB 8637; Euro-Sib. ele., H ros.

P. lanceolata L., 11, on coastal dunes, 25.06.2004, 14, at roadsides, 19.05.2008, OMUB 8581, H ros.

P. lagopus L., 6, in meadows, 19.03.2006, OMUB 7159; Medit. ele., T ros.

Eleagnaceae

Hippophaë rhamnoides L. subsp. *caucasica* Rousi, 11, on coastal dunes, 27.03.2005, OMUB 7151; 14, along a drainage canal, 21.07.2008, OMUB 8649, Mi P scap.

Aristolochiaceae

Aristolochia clematitis L., 14, in fallow fields, 17.09.2008, OMUB 8685; Euro-Sib. ele., G rhiz.

A. pontica Lam., 4, in a shrub, 21.07.2004, OMUB 6776; Eux. ele., G rhiz

Euphorbiaceae

Euphorbia peplis L., 23, on coastal dunes, 21.07.2004, OMUB 6814; Medit. ele., T rept.

E. palustris L., 1, in a forest, 28.05.2004, OMUB 6572; 17, in wet places, 07.08.2004, OMUB 6989; Euro-Sib. ele., H caesp.

E. hirsuta L., 12, on wet soils, 21.07.2004, OMUB 6838; 9, on wet soils, 31.08.2004, OMUB 7085, H caesp.

E. stricta L., 5, in a forest, 02.04.2004, OMUB 6458; 7, in wet places, 27.03.2005, OMUB 7134; Euro-Sib. ele., T caesp.

E. microsphaera Boiss., 18, in open places, 21.07.2004, OMUB 6837; 8, at roadsides, 08.06.2008, OMUB 8619; Ir.-Tur. ele., T scap.

E. helioscopia L., 7, in open places, 27.03.2005, OMUB

7138; 5, at the edge of forest, 17.06.2006, OMUB 7297; 2, in forest openings, 08.03.2008, OMUB 8546, T scap.

E. paralias L., 11, on coastal dunes, 25.06.2004, OMUB 6613; 11, on coastal dunes, 21.07.2008, OMUB 8634, Ch frut.

E. terracina L., 11, on coastal dunes, 21.07.2004, OMUB 6862; *Medit. ele.*, H caesp.

Urticaceae

Urtica dioica L., 8, at roadsides, 23.07.2004, OMUB 7037; 1, in a forest, 13.08.2006, OMUB 7375; 14, at roadsides, 19.05.2008, OMUB 8576; *Euro-Sib. ele.*, H scap.

Cannabaceae

Humulus lupulus L., 14, on *Salix alba* L., 17.09.2008, OMUB 8670; *Euro-Sib. ele.*, st PL suff.

Moraceae

**Morus alba* L., 8, at roadsides, 23.07.2004, OMUB 6913, Mes P scap.

Ficus carica L. subsp. *carica*, 13, at roadsides, 21.07.2004, OMUB 6881; 2, in a forest, 23.07.2004, OMUB 7024, Mes P scap.

**Maclura pomifera* (Raf.) C.K.Schneid., 10, at roadsides, 19.05.2004, OMUB 8598, Mi P scap.

Ulmaceae

Ulmus minor Mill. subsp. *minor*, 12, at roadsides, 25.06.2004, OMUB 6683; 19, in a forest, 09.07.2004, OMUB 6723, Mes P scap.

Fagaceae

Quercus hartwissiana Steven, 12, in a forest, 25.06.2004, OMUB 6684; 2, in a forest, 23.07.2004, OMUB 6914, Mes P scap.

Corylaceae

Carpinus betulus L., 2, in a forest, 13.08.2006, OMUB 7385; *Euro-Sib. ele.*, Mes P scap.

Corylus avellana L. var. *pontica* (C.Koch) Winkler, 2, in a forest, 23.07.2004, OMUB 6894; *Eux. ele.*, Mi P caesp.

Betulaceae

Alnus glutinosa (L.) Gaertn. subsp. *barbata* (C.A.Mey.) Yalt., 18, in wet places, 09.07.2004, OMUB 6734; 1, in a forest, 19.03.2006, OMUB 7198; 17, in wet places, 19.05.2008, OMUB 8584; *Eux. ele.*, Mes P scap.

Salicaceae

Salix alba L., 10, at wet roadsides, 19.05.2004, OMUB 8591; *Euro-Sib. ele.*, Mes P scap.

Populus alba L., 12, at roadsides, 18.03.2004, OMUB 8593; 14, in fallow fields, 02.04.2004, OMUB 6443; 5, in forest openings, 27.03.2005, OMUB 7141; *Euro-Sib. ele.*, Mes P scap.

Ceratophyllaceae

Ceratophyllum demersum L., 7, in a drainage canal, 07.08.2004, OMUB 6990; *Euro-Sib. el.*, hyd G rad.

Ceratophyllum submersum L., 7, in a lake, 23.7.2004, OMUB 6978; *Euro-Sib. ele.*, hyd G rad.

Sherardia arvensis L., 12, on sandy soils, 02.04.2004, OMUB 6453; 1, in the forest, 16.04.2004, OMUB 6478; 11, on coastal dunes, 16.04.2004, OMUB 6517, T scap.

Asperula involucrata Wahlenb., 1, in a forest, 21.07.2008, OMUB 8654; *Eux. ele.*, Ch suff.

Galium palustre L., 5, in a forests, 25.06.2004, OMUB 6625; 6, on wet soils, 19.05.2008, OMUB 8555; 14, on banks of a drainage canal, 08.06.2008, OMUB 8617; *Euro-Sib. ele.*, H scap.

G. aparine L., 2, in a forest, 07.05.2004, OMUB 6530; 1, in a forest 28.05.2004, OMUB 6579, T scap.

Rubia tinctorum L., 1, at the edge of forest, 21.07.2004, OMUB 6847; H caesp.

Liliopsida (Monocotyledones)

Butomaceae

Butomus umbellatus L., 7, in a lake, 25.06.2004, OMUB 6662; *Euro-Sib. ele.*, hyd G rhiz.

Alismataceae

Alisma plantago-aquatica L., 7, in a swamp, 31.08.2004, OMUB 7060; 1, on banks of pond, 24.09.2006, OMUB 7431; *Euro-Sib. ele.*, hyd H scap.

Hydrocharitaceae

Hydrocharis morsus-ranae L., 7, in a drainage canal, 16.7.2011, OMUB 8753, hyd H caesp

Araceae

Arum maculatum L., 5, in a forest, 28.05.2004, OMUB 6564; 2, in a forest, 01.07.2006, 7313, G bulb.

A. euxinum R.R.Mill, 2, in a forest, 19.3.2006, OMUB 7210; *End.*; *Eux. ele.*, G bulb., LR (lc).

Lemnaceae

Lemna minor L., 14, in a drainage canal, 08.06.2008, OMUB 8603, K Hyd Nat.

Liliaceae

Smilax excelsa L., 10, on *S. alba*, 19.05.2004, OMUB 8597; 1, on *A. glutinosa* subsp. *barbata*, 19.03.2006, OMUB 7194; *Eux. ele.*, el PL frut.

Ruscus aculeatus L. var. *angustifolius* Boiss., 2, in a forest, 17.06.2006, OMUB 7270, Ch frut.

Allium rupestre Steven, 3, on sandy soils, 03.10.2009, OMUB 8739; Eux. ele., G bulb.

A. scorodoprasmum L. subsp. *jajlae* (Vved.) Stearn, 6, on moist soils, 07.05.2004, OMUB 6535; 3, at sandy soils, 17.09.2008, OMUB 8673; Eux. ele., G bulb.

Ornithogalum sigmoideum Freyn & Sint., 12, on coastal dunes, 02.04.2004, OMUB 6467; Euro-Sib. ele., G bulb.

Muscari parviflorum Desf., 12, on sandy soils, 02.04.2004, OMUB 6468; 11, on coastal dunes, 16.04.2004, OMUB 6496; Medit. ele., G bulb

Amaryllidaceae

Leucojum aestivum L., 14, in a flooded place, 21.07.2004, OMUB 6879; 2, on moist soils, 17.06.2006, OMUB 7280; Euro-Sib. ele., G bulb, VU.

Galanthus rizehensis Stern, 2, in a forest, 08.03.2008, OMUB 8543; Eux. ele., G bulb, VU.

Pancratium maritimum L., 11, on coastal dunes, 21.07.2004, OMUB 6854; Medit. ele., G bulb, EN.

Iridaceae

Iris pseudacorus L., 1, at watersides, 28.05.2004, OMUB 6573; 10, in wet meadows, 19.05.2004, OMUB 8594, hyd G rhiz.

Orchidaceae

Listera ovata (L.) R.Br., 2, in a forest, 22.5.2011, OMUB 8754; Euro-Sib. ele., G rhiz.

Epipactis pontica Taubenheim, 2, in a forest, 23.07.2004, OMUB 6904; End.; Eux. ele., G rhiz., LR(lc).

Platanthera chlorantha Cust. ex Rchb., 5, in a forest, 16.07.2011, OMUB 8755; G bulb.

Ophrys apifera Huds., 11, on sandy soils, 16.04.2004, OMUB 6522; 5, in the forest, 28.05.2004, OMUB 6561, G bulb.

Anacamptis pyramidalis (L.) Rich., 5, in a forest, 26.06.2011, OMUB 8756; G bulb.

Orchis papilionacea L. var. *papilionacea*, 5, in a forest, 28.05.2004, OMUB 6565, G bulb.

Dioscoreaceae

Tamus communis L. subsp. *communis*, 2, in a forest, 13.08.2006, OMUB 7388, st GL.

Sparganiaceae

Sparganium erectum L. subsp. *neglectum* (Beeby) K.Richt., 9, on banks of a drainage canal, 31.08.2004, OMUB 7086; 14, in a drainage canal, 08.06.2008, OMUB 8616; Euro-Sib. ele., hyd G rad.

Typhaceae

Typha angustifolia L., 7, in a lake, 24.09.2006, OMUB 7413, hyd G rhiz.

Juncaceae

Juncus acutus L., 12, on wet soils, 1.07.2006, OMUB 7349, H caesp.

J. maritimus Lam., 11, in wet sandy places, 1.07.2006, OMUB 7352; 9, on wet soils, 03.10.2009, OMUB 8733, G rhiz.

J. effusus L., 1, in a forest, 09.07.2004, OMUB 6756; 5, on wet soils, 01.07.2006, OMUB 7328; Cosm., G rhiz.

J. bufonius L., 23, on coastal dunes, 28.05.2004, OMUB 6598; Cosm., T caesp.

J. articulatus L., 17, on wet soils, 07.08.2004, OMUB 6980; Euro-Sib. ele., G rhiz.

Luzula multiflora (Retz.) Lej., 11, on coastal dunes, 02.04.2004, OMUB 6474, H caesp.

Cyperaceae

Cyperus longus L., 9, on banks of a drainage canal, 31.08.2004, OMUB 7092, G rhiz.

C. rotundus L., 7, on edges of lake, 24.09.2006, OMUB 7411; 1, in a forest, 24.09.2006, OMUB 7438, G rhiz.

C. capitatus Vand., 23, on coastal dunes, 23.07.2004, OMUB 6918, G rhiz.

Schoenoplectus litoralis (Schrad.) Palla, 6, in wet soils, 21.07.2004, OMUB 6800; 9, in a drainage canal, 07.08.2004, OMUB 7004, hyd G rhiz.

Cladium mariscus (L.) Pohl, 14, in a drainage canal, 03.10.2009, OMUB 8734, hyd G rhiz.

Carex divulsa Stokes subsp. *divulsa*, 7, on edges of lake, 19.05.2008, OMUB 8587, H caesp.

C. divulsa Stokes subsp. *leersii* (Kneuck.) W. Koch, 6, in wet meadows, 21.07.2004, OMUB 6841; 2, at watersides, 01.07.2006, OMUB 7326; Euro-Sib. ele., H caesp.

C. remota L., 2, in a forest, 09.07.2004, OMUB 6740; 2, in a forest, 23.07.2004, OMUB 6936; Euro-Sib. ele., H caesp.

C. riparia Curtis, 5, at watersides, 09.07.2004, OMUB 6769; Euro-Sib. ele., G rhiz.

C. nigra (L.) Reichard subsp. *nigra*, 12, in a forest, 25.06.2004, OMUB 6630, G rhiz.

Poaceae (Gramineae)

Brachypodium sylvaticum (L.) P.Beauv., 2, in a forest, 13.08.2006, OMUB 7386; Euro-Sib. ele., H caesp.

Elymus elongatus (Host) Runemark subsp. *elongatus*,

- 11, on coastal dunes, 21.07.2004, OMUB 6860, H caesp.
- E. farctus* (Viv.) Runemark ex Melderis subsp. *bessarabicus* (Sävul. & Rayss) Melderis var. *bessarabicus*, 11, on coastal dunes, 21.07.2004, OMUB 6856, G rhiz.
- Hordeum murinum* L. subsp. *glaucum* (Steud.) Tzvelev, 7., in meadows, 25.06.2004, OMUB 6658; 8, in open places, 23.07.2004, OMUB 6969, T scap.
- Bromus racemosus* L., 8, at roadsides, 08.06.2008, OMUB 8610; Euro-Sib. ele., T scap.
- B. sterilis* L., 2, in a forest, 25.06.2004, OMUB 6695, T scap.
- Rostraria cristata* (L.) Tzvelev var. *cristata*, 12, in meadows, 25.06.2004, OMUB 6644, T scap.
- R. cristata* (L.) Tzvelev var. *glabriflora* (Trautv.) Doğan, 11, on coastal dunes, 08.06.2008, OMUB 8612, T scap.
- Holcus lanatus* L., 12, in meadows, 25.06.2004, OMUB 6610; 14, in meadows, 21.07.2004, OMUB 8632; 17, on moist soils, 07.08.2004, OMUB 6987; Euro-Sib. ele., H caesp.
- Polypogon viridis* (Gouan) Breistr., 1, in a forest, 09.07.2004, OMUB 6751; 12, in meadows, 21.07.2004, OMUB 6842; Euro-Sib. ele., H caesp.
- P. maritimus* Willd. subsp. *maritimus*, 11, on coastal dunes, 21.07.2004, OMUB 6822; Euro-Sib. ele., T caesp.
- Alopecurus myosuroides* Huds. var. *myosuroides*, 5, in forest openings, 23.04.2006, OMUB 7234; Euro-Sib. ele., T caesp.
- A. myosuroides* Huds. var. *tonsus* (Blanche ex Boiss.) R.Mill, 11, on coastal dunes, 16.04.2004, OMUB 6495; 5, in a forest, 19.03.2006, OMUB 7182; 2, at the edge of forest, 17.06.2006, OMUB 7278; Euro-Sib. ele., T caesp.
- Phleum arenarium* L., 11, on coastal dunes, 23.07.2004, OMUB 6917; Medit. ele., T scap.
- Lolium perenne* L., 11, on coastal dunes, 21.07.2004, OMUB 6863; Euro-Sib. ele., H caesp.
- L. rigidum* Gaudin var. *rigidum*, 7, at roadside, 27.05.2006, OMUB 7251; 2, in forest openings, 01.07.2006, OMUB 7322; 11, on coastal dunes, 19.05.2008, OMUB 8562; T scap.
- Vulpia fasciculata* (Forssk.) Fritsch, 2, at the edge of forest, 07.05.2004, OMUB 6549; 11, on coastal dunes, 19.03.2006, OMUB 7169; Medit. ele., T caesp.
- Catapodium rigidum* (L.) C.E.Hubb. ex Dony subsp. *rigidum* var. *rigidum*, 4, in a shrub community, 21.07.2004, OMUB 6790, T scap.
- Poa annua* L., 4, in a shrub, 16.04.2004, OMUB 6480; 5, in a forest, 27.03.2005, OMUB 7144; 23, on coastal dunes, 17.06.2006, OMUB 7288; Cosm., T caesp.
- P. trivialis* L., 2, in a forest, 23.07.2004, OMUB 7030; 1, in a forest, 19.03.2006, OMUB 7197; 14, at roadsides, 19.05.2008, OMUB 8580. H caesp.
- Sclerochloa dura* (L.) P.Beauv., 7, in meadows, 01.07.2006, OMUB 7365, T caesp.
- Briza media* L., 6, in meadows, 21.07.2004, OMUB 6828, H caesp.
- Phragmites australis* (Cav.) Steud., 17, in a lake, 08.06.2008, OMUB 8602; Euro-Sib. ele., G rhiz.
- Eleusine indica* (L.) Gaertn., 7, in wet meadows, 01.07.2006, OMUB 7365a, T caesp.
- Cynodon dactylon* (L.) Pers. var. *dactylon*, 12, in wet meadows, 21.07.2004, OMUB 6830; 7, on moist soil, 01.07.2006, OMUB 7441a, G rhiz.
- Echinochloa crus-galli* (L.) P.Beauv., 7, at roadsides, 13.08.2006, OMUB 7395, T scap.
- E. oryzoides* (Ard.) Fritsch, 7, in wet meadows, 13.08.2006, OMUB 7402; 1, in a forest, 24.09.2006, OMUB 7435, T scap.
- Oplismenus undulatifolius* (Ard.) P.Beauv., 2, in a forest, 24.09.2006, OMUB 7423, H scap.
- Digitaria sanguinalis* (L.) Scop., 11, on coastal dunes, 21.07.2004, OMUB 6858; 7, on moist soil, 31.08.2004, OMUB 7053, T scap.
- Paspalum paspalodes* (Michx.) Scribn., 12, in a wet meadow, 21.07.2004, OMUB 6847; 14, in open places, 17.09.2008, OMUB 8684; 7, in a wet meadow, 18.10.2008, in a wet meadow, 8724, G rhiz.
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