**Supplementary Appendix S4**: List of diagnostic, constant and dominant species associated to the studied vegetation units (Figure 2) and Synoptic table (Table 1).

***Chenopodium album-Reseda lutea* community** (Fig. 2 and Tab. 1: **Che-Res**; 4 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: ***Chenopodium album* L**.,*Reseda lutea* L.; Constant species: ***Antirrhinum majus* L**., *Chelidonium majus* L., *Chenopodium album* L., *Hedera helix* L.,***Reseda lutea* L**., *Sonchus oleraceus* L.; Dominant species: *Antirrhinum majus* L., *Chenopodium album* L. The average herb and moss coverage is 35% and 5.2%, respectively. The number of species in the relevés was between 5 and 20 (average 10). It appears mostly on eastern expositions on the slopes between 90° and 100°. *Distribution records*: Siklós, Pécsvárad (HU).

***Asplenio rutae-murario-Campanuletum rotundifoliae* Jasprica, Škvorc et Purger ass. nov. hoc loco** (Fig. 2 and Tab. 1: **Asp-Cam**;12 relevés, Holotypus: rel. no. 9 of Supplementary Appendix S2).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Arabidopsis arenosa* (L.) Lawalrée, *Artemisia campestris* L., *Asplenium ruta-muraria* L.,***Campanula rotundifolia* L.**, *Linaria genistifolia* (L.) Mill.,***Minuartia glaucina* Dvořáková**,*Poa pratensis* L., *Reseda lutea* L., *Sedum album* L.; Constant species: *Arabidopsis arenosa* (L.) Lawalrée,***Asplenium ruta-muraria* L**., *Asplenium trichomanes* L.,***Campanula rotundifolia* L.**, ***Minuartia glaucina* Dvořáková**, *Petrorhagia saxifraga* (L.) Link, *Reseda lutea* L., *Sedum album* L.; Dominant species: *Asplenium ruta-muraria* L., *Campanula rotundifolia* L. The average herb and moss coverage is 33.3% and 9.9%, respectively. The number of species in the relevés was between 5 and 18 (average 7.8). It appears mostly on northern expositions on the slopes of 90°. *Distribution records*: Sümeg, Veszprém, Pécsvárad (HU); Kranj (SI).

***Asplenium trichomanes-Arabis hirsuta* community** (Fig. 2 and Tab. 1: **Asp-Ara**; 5 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: ***Agrostis* sp.**, ***Arabis hirsuta* (L.) Scop.**,*Asplenium ruta-muraria* L.,***Epilobium lanceolatum* Sebast. & Mauri**, ***Fragaria vesca* L*.***, ***Linaria vulgaris* Mill.**, ***Thymus pulegioides* L.**, ***Verbascum thapsus* L.**;Constant species: *Agrostis* sp., *Arabidopsis arenosa* (L.) Lawalrée, *Arabis hirsuta* (L.) Scop., *Artemisia vulgaris* L.,***Asplenium ruta-muraria* L.***,* ***Asplenium trichomanes* L.**,*Chelidonium majus* L., *Epilobium lanceolatum* Sebast. & Mauri,***Fragaria vesca* L.**,*Hedera helix* L.,***Linaria vulgaris* Mill.**,*Reseda lutea* L., *Thymus pulegioides* L., *Verbascum thapsus* L.; Dominant species: *Agrostis* sp., *Arabidopsis arenosa* (L.) Lawalrée, *Arabis hirsuta* (L.) Scop., *Asplenium ruta-muraria* L., *Asplenium trichomanes* L., *Epilobium lanceolatum* Sebast. & Mauri, *Fragaria vesca* L., *Reseda lutea* L., *Thymus pulegioides* L. The number of species in the relevés was between 6 and 12 (average 9), and community was exposed in different aspects (NE, W, E). *Distribution records*: Zagreb (HR).

***Asplenietum rutae-murario-trichomanis* Kuhn 1937** (Fig. 2 and Tab. 1: **Arm-t**; 33 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Asplenium ruta-muraria* L., *Chelidonium majus* L., *Poa compressa* L., *Taraxacum officinale* aggr. F.H.Wigg.; Constant species: ***Asplenium ruta-muraria* L.**, ***Asplenium trichomanes* L.**, *Chelidonium majus* L., *Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb.;Dominant species: *Asplenium ruta-muraria* L.The average herb and moss coverage is 31.2% and 10.1%, respectively. The number of species in the relevés was between 3 and 20 (average 7.2). It appears mostly on northern expositions on the slopes of 90°. *Distribution records*: Pécs, Pécsvárad, Sopron, Siklós, Veszprém (HU); Kranj (SI); The Istrian Peninsula, Čakovec, Podravina region, Zagreb, Karlovac, Ogulin (HR); Sarajevo and Central Bosnia (BIH); Berane (MNE).

***Cymbalarietum muralis* Görs *ex* Oberd. 1977**(Fig. 2 and Tab. 1: **Cym**; 48 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Buddleia davidii* Franchet., *Chelidonium majus* L., *Clematis vitalba* L., *Convolvulus arvensis* L., *Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb., *Erigeron canadensis* L., *Galium anisophyllon* Vill., *Lamium amplexicaule* L., *Ochlopoa annua* (L.) H.Scholz (=*Poa a*.), *Plantago lanceolata* L., *Plantago major* L.,***Sonchus asper* (L.) Hill**; Constant species: *Asplenium ruta-muraria L., Asplenium trichomanes* L., *Chelidonium majus* L.,***Cymbalaria muralis* P.Gaertn.**, **B.Mey. & Scherb.**,*Erigeron canadensis* L., *Sonchus asper* (L.) Hill; Dominant species: *Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb. The total vegetation cover varies from 5% to 80% (average 29.5%), and the average herb and moss coverage is 51.8% and 9.8%, respectively. The number of species in the relevés was between 3 and 19 (average 8.1). It appears mostly on northern expositions exclusively on the slopes of 90°. *Distribution records*: Pécs, Sopron, Veszprém, Pécsvárad (HU); Kranj, Ljuljana (SI); Podravina region, Čakovec, Požega, Slavonski Brod, Osijek, Kupa River, Ogulin (HR); Sarajevo, Travnik, Central Bosnia (BIH); Novi Sad, Belgrade (SR).

***Sedo dasyphilli-Campanuletum austroadriaticae* Jasprica, Škvorc et Kovačić ass. nova hoc loco** (Fig. 2 and Tab. 1: **Sed-Cam**; 15 relevés, Holotypus: rel. no. 107 of Supplementary Appendix S2).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Avena barbata* Link,***Campanula austroadriatica* D.Lakušić & Kovačić,***Convolvulus althaeoides* L., *Galium firmum* Tausch, *Leontodon crispus* Vill., *Micromeria juliana* (L.) Benth. ex Rchb., *Petrorhagia saxifraga* (L.) Link, *Pistacia terebinthus* L.,***Poa bulbosa* L.**, *Satureja montana* L., *Sedum dasyphyllum* L., *Senecio squalidus* L.; Constant species: ***Asplenium ceterach* L.**,*Asplenium trichomanes* L.,***Campanula austroadriatica* D.Lakušić & Kovačić**,*Leontodon crispus* Vill., *Micromeria juliana* (L.) Benth. ex Rchb., ***Parietaria judaica* L.**, *Petrorhagia saxifraga* (L.) Link,***Poa bulbosa* L.**,*Satureja montana* L., *Sedum album* L., *Sedum dasyphyllum* L.; Dominant species: *Campanula austroadriatica* D.Lakušić & Kovačić. The average herb and moss coverage is 30.7% and 6.5%, respectively. The number of species in the relevés was between 6 and 22 (average 14.5). It occurs mostly on N–NE expositions on the slopes between 80° and 90°. *Distribution records*: The Istrian Peninsula, Knin (HR); Stari Bar, Podgorica, Cetinje, Nikšić (MNE); Shkodër (AL).

***Oxalido corniculatae-Parietarietum judaiace typicum* (Braun-Blanq., Roussine et Nègre 1952) Segal 1969** (Fig. 2 and Tab. 1: **Ox-ParT**; 50 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Arenaria leptoclados* (Rchb.) Guss., *Asplenium ceterach* L., *Cardamine hirsuta* L., *Geranium rotundifolium* L., *Saxifraga tridactylites* L., *Sedum album* L.; Constant species: *Arenaria leptoclados* (Rchb.) Guss.,***Asplenium ceterach* L.**,*Asplenium trichomanes* L., *Geranium rotundifolium* L.,***Parietaria judaica* L.**, *Saxifraga tridactylites* L., *Sedum album* L.; Dominant species: *Asplenium ceterach* L. The average herb cover layer is 49.4%. The number of species in the relevés was between 3 and 15 (average 7.8). It occurs to both southern and northern expositions on the slopes between 45° and 90°. *Distribution records*: The Istrian Peninsula, the islands of Murter and Kornat (Middle Adriatic), and the islet of Badija (South Adriatic), coastal and inland Dalmatia (HR); Mostar (BIH); Podgorica, Stari Bar (MNE).

***Oxalido corniculatae-Parietarietum judaiace* (Braun-Blanq., Roussine et Nègre 1952) Segal 1969 *cymbalarietosum muralis* Brullo et Guarino 1998** (Fig. 2 and Tab. 1: **Ox-ParCm**; 172 relevés)

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Asplenium ceterach* L., *Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb., *Parietaria judaica* L.; Constant species: ***Asplenium ceterach* L.**,*Asplenium trichomanes* L.,***Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb.**, ***Parietaria judaica* L.**;Dominant species: *Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb. The herb cover layer was between 5% and 95% (average 43.3%). The number of species in the relevés was between 3 and 14 (average 6.1). The stands occur to both southern and northern expositions on the slopes between 80° and 90°. *Distribution records*: The Istrian Peninsula, Croatian islands (Krk, Cres, Murter, Kornat) and islets (Badija, Vrnik), the Pelješac Peninsula, coastal and inland Dalmatia (HR); Mostar and in Central Bosnia (BIH); Shkodër (AL); Ohrid (MK).

***Soncho tenerrimi*-*Parietarietum judaiace* Jasprica, Škvorc, Pandža et Milović** **ass. nov. hoc loco** (Fig. 2 and Tab. 1: **Son-Par**; 93 relevés; Holotypus: rel. no. 408 of Supplementary Appendix S2).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Allosorus acrosticus* (Balb.) Christenh., *Campanula erinus* L., *Catapodium rigidum* (L.) C.E.Hubb., *Erigeron sumatrensis* Retz., *Oxalis corniculata* L., *Parietaria judaica* L., *Sonchus tenerrimus* L., *Veronica arvensis* L., *Veronica cymbalaria* Bodard; Constant species: *Antirrhinum majus* L., *Asplenium ceterach* L., *Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb.,***Parietaria judaica* L.**,*Reichardia picroides* (L.) Roth, *Sonchus tenerrimus* L.; Dominant species: *Parietaria judaica* L. The herb cover layer was between 5% and 80% (average 34.4%). The number of species in the relevés was between 4 and 30 (average 9.8). The community is exposed at different aspects (30% of total number of the relevés was on walls face south) on the slopes between 70° and 90°. *Distribution records*: The Istrian Peninsula, Croatian islands (Murter, Kornat and Olib) and islet (Vrnik), the Pelješac Peninsula, coastal and inland Dalmatia (HR); Mostar (BIH); Stari Bar, Kotor, Podgorica (MNE); Ohrid (MK).

***Resedo albae-Anthirrinetum majoris* Trinajstić 2008** (Fig. 2 and Tab. 1: **Res-Ant**; 20 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Antirrhinum majus* L., *Dittrichia viscosa* (L.) Greuter, *Hippocrepis emerus* (L.) Lassenssp. *emeroides*, *Inula verbascifolia* (Willd.) Hausskn., *Reichardia picroides* (L.) Roth,***Reseda alba* L.**,*Rubus sanctus* Schreb.(incl. *R. ulmifolius* Schott)*,* ***Sonchus asper* (L.) Hill ssp. *glaucescens* (Jord.) Ball**; Constant species: ***Antirrhinum majus* L.**,*Dittrichia viscosa* (L.) Greuter, *Inula verbascifolia* (Willd.) Hausskn.,***Parietaria judaica* L.**, ***Reichardia picroides* (L.) Roth**,*Reseda alba* L.,***Sonchus asper* (L.) Hill ssp. *glaucescens* (Jord.) Ball**; Dominant species: *Antirrhinum majus* L., *Parietaria judaica* L. The herb cover layer was between 3% and 70% (average 31.6%). The number of species in the relevés was between 3 and 24 (average 12.7). The community is mostly exposed to southern exposition on the slopes between 70° and 90°. *Distribution records*: the island of Korčula, Split, Omiš, Dubrovnik (HR); Stari Bar, Ulcinj (MNE).

***Antirrhinum majus-Capparis orientalis* community** (Fig. 2 and Tab. 1: **Ant-Cap**; 9 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: *Antirrhinum majus* L.,***Capparis orientalis* Veill.**,*Centaurea ragusina* L.; Constant species: ***Antirrhinum majus* L.**, ***Capparis orientalis* Veill.**,*Cymbalaria muralis* P.Gaertn., B.Mey. & Scherb.,***Parietaria judaica* L.**; Dominant species: *Capparis orientalis* Veill. The herb cover layer was between 10% and 80% (average 51.1%). The number of species in the relevés was between 3 and 17 (average 7.1). The community is mostly exposed to western exposition on the slopes of 90°. *Distribution records*: the island of Korčula, Split, Omiš (HR); Stari Bar (MNE).

***Artemisia arborescens-Coronilla valentina* community** (Fig. 2 and Tab. 1: **Art-Cor**; 2 relevés).

Threshold fidelity value for diagnostic species: 20 (50)

Threshold frequency value for constant species: 30 (50)

Threshold frequency value for dominant species with cover up to 5: 30 (100)

Diagnostic species: ***Artemisia arborescens* L.**, ***Convolvulus cneorum* L.**, ***Coronilla valentina* L**.; Constant species: *Aethionema saxatile* (L.) W.T.Aiton, *Allium commutatum* Guss.,***Artemisia arborescens* L.**,*Asperula visianii* Korica,***Capparis orientalis* Veill.**,*Centaurium erythraea* Rafn,***Convolvulus cneorum* L.**, ***Coronilla valentina* L.**,*Crithmum maritimum* L., *Daucus carota* L. ssp. *hispanicus* (Gouan) Thell., *Desmazeria marina* (L.) Druce, *Ficus carica* L., *Helichrysum italicum* (Roth) G.Don,***Hyoscyamus albus* L.**,*Lavatera arborea* L., *Petrorhagia saxifraga* (L.)Link, *Phillyrea media* L., *Pistacia lentiscus* L., *Reichardia picroides* (L.) Roth, *Schoenus nigricans* L.,***Silene vulgaris* (Moench) Garcke ssp. *vulgaris***; Dominant species: *Capparis orientalis* Veill., *Hyoscyamus albus* L. This shrubby community grows on the southeast rocky slopes of 70°. The vegetation cover is 60%. *Distribution records*: the island of Svetac (Vis Archipelago, Middle Adriatic, HR).