A SURVEY OF THE WEEDY COMMUNITIES OF SICILY

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ABSTRACT - As Sicily has been a central crossroads of human activity for thousands of years, it offers a major perspective on the Mediterranean weedy plant communities. This syntaxonomical survey of the Sicilian weedy vegetation groups together for the first time 30 plant associations, that have been described from the main and neighboring island in the last three decades. The surveyed vegetation is ascribed to the classes Papaveretea rhoeadis and Stellarietea mediae, whose floristic autonomy is here discussed, and to the orders Aperetalia spicae-venti and Papaveretalia rhoeadis for the former, Polygono-Chenopodietalia polispermi, Solano-Polygonetalia convolvuli, Thero-Brometalia and Urtico-Scrophularietalia peregrinae for the latter class. Most of the surveyed associations are linked to hoed cultivations. Major differences are determined by the tillage and watering regimes, on their turn related to the life-cycle of the cultivated plant.

KEY WORDS - Sicily, weedy vegetation, phytosociology, *Papaveretea rhoeadis*, *Stellarietea mediae*.

INTRODUCTION

Basing on literature and unpublished data, a syntaxonomical survey of the weedy plant communities of Sicily and neighboring small islands has been carried out. In this region, both wooden and herbaceous cultivations are widespread. The most common wooden groves include: oliveyards, vineyards, fruit-orchards (citrus, almond, peaches, apples, pears, and so on). In the second group, a further distinction can be made between non-hoed (cereals) and hoed cultivations (mainly legumes, corn, artichokes and other vegetables, eventually under plastic). The weedy communities described for Sicily reflect this noteworthy horticultural variety, since the colonization of weeds is strictly related to the cultivation techniques, often differing from one crop to the other.

Cereals are the most common element of the Sicilian agricultural landscape, as they are grown almost everywhere, from the sea level up to flattened or gentle-sloping mountain sites. The hilly landscape of inner Sicily was already transformed by

the Romans into the "granary of the Empire". The segetal weedy vegetation of Sicily is therefore rich and well differentiated. All the surveyed association can be ascribed to the class *Papaveretea rhoeadis*, which comprises the order *Papaveretalia rhoeadis*, grouping the most thermophilous vegetation types, and *Aperetalia spicaeventi*, more mesophilous, in Sicily restricted to siliceous mountain sites at more that 700 m a.s.l.

Most of the surveyed associations are linked to hoed cultivations. Major differences are determined by the tillage and watering regimes, on their turn related to the life-cycle of the cultivated plant. Depending on the growing season, two orders can be recognized in the whole Mediterranean region: the first one, *Polygono-Chenopodietalia polispermi*, with the alliance *Fumarion wirtgenii-agrariae*, groups the weedy vegetation that grows during the rainy season (winter-spring); the second one, *Solano-Polygonetalia convolvuli*, grouping the vegetation that grows in the summer-fall period. The latter is furtherly split in three alliances: *Digitario ischaemi-Setarion viridis*, to which the weedy communities of watered cultivations are ascribed, *Diplotaxion erucoidis* and *Chenopodion botryos*, comprising the remarkably thermoxerophilous vegetation of non-watered cultivations, on basic-neutral or acidic soils, respectively.

Vineyards of western Sicily, settled on carbonatic, poorly fertilized soils, host a peculiar subnitrophilous vegetation belonging to the endemic alliance *Fedio gracilis-Convolvulion cupaniani*, characterized by several species that commonly grow, as well, in abandoned fields.

Citruses have been introduced in Sicily by the Arabian settlers in the early medieval age. Therefore, there have been enough time for the floristic differentiation of a weedy vegetation, chiefly composed by sciaphilous-subnitrophilous species originating from a ruderal suburban flora (*Urtico-Scrophularietalia peregrinae*), that have found an ideal ecological niche under the evergreen dense canopies of the citrus-groves. This weedy vegetation is ascribed to the special alliance *Veronico-Urticion urentis*. Since citrus-groves are watered, once or twice, in the summer, their weedy vegetation may progressively shift towards aspects more related with the above-mentioned alliance *Digitario ischaemi-Setarion viridis*, especially where groves are not too dense.

The weedy associations occurring in Sicily are reported in the following syntaxonomical scheme, where Brullo *et al*. (1995) are followed for the phytogeographical partitions of Sicily, Pignatti (1982) and Conti *et al*. (2006) for the floristic nomenclature, Weber *et al*. (2000) for the syntaxonomical one.

PAPAVERETEA RHOEADIS Brullo, Scelsi & Spampinato 2001

SYN.: *Ruderali-Secalietea* Br.-Bl. in Br.-Bl., Gajevscki, Wraber & Walas 1936 p.p. nom inval. (art. 3f); *Secalietea* Br.-Bl. in Br.-Bl., Roussine & Nègre 1952 nom inval. (art. 3f).

CHARACTER AND DIFFERENTIAL SPECIES: *Agrostemma githago, Anagallis arvensis, Anagallis foemina, Anthemis arvensis, Asperula arvensis, Avena barbata , Avena sterilis* ssp. *macrocarpa, Avena sterilis* ssp. *sterilis, Calendula arvensis, Catapodium rigidum, Chrysanthemum segetum, Gladiolus segetum, Legousia falcata, Legousia speculum-veneris, Leopoldia comosa, Lolium rigidum , Orlaya kochii,*

Loncomelos narbonensis, Papaver dubium, Papaver hybridum, Papaver rhoeas, Phalaris canariensis ssp. *brachystachys, Phalaris canariensis* ssp. *canariensis, Rhaphanus raphanistrum, Scandix pecten-veneris, Sherardia arvensis, Sinapis arvensis, Vicia lutea, Vicia sativa* ssp. *macrocarpa, Vicia sativa* ssp. *sativa,*

STRUCTURE AND ECOLOGY: Heliophilous therophitic weedy vegetation colonizing cereal fields. Its distribution range comprises the whole Mediterranean region and stretches over most of the temperate-atlantic one.

CROP: wheat and barley, in Sicily sowed in autumn and harvested between the second half of May and the end of June. Every two years, cereal fields of Sicily are rotated with legumes (namely *Vicia faba*) or set aside for pasture.

SYNDYNAMISM: in Sicily, connected with the dynamic series of *Quercetea ilicis*.

RANGE IN SICILY: Widespread all over the Eu-Sicilian biogeographic sector (Di Martino & Raimondo, 1976; Bartolo et al., 1983; Lo Cicero & Piccione, 1977; Ferro, 1990).

NOTES: The weedy vegetation of cereal fields includes many species having an East-Mediterranean and Turanian distribution, probably deriving from the centers where the domestication of wheat and barley occurred (archeophytes). With reference to the European territory, the character species of the class at issue are decreasing westwards and northwards and the segetal vegetation becomes progressively enriched in elements of *Stellarietea mediae*, up to the point that many authors do not recognize the floristic autonomy of the two classes (Tüxen, 1951; Hüppe & Hofmeister, 1990; Rivas Martínez *et al*., 2002). The many data available from the Mediterranean area (Ferro, 1990) suggest that it would be preferable to follow the original hypothesis, formulated by Braun-Blanquet *et al*. (1952), i.e. an autonomous class grouping the segetal vegetation dominated by archeophytes. In particular, the class *Secaletea* has been created to give emphasis to the remarkable thermo-xerophilous preferences of its chief species, well different from those characterizing the *Chenopodietea*, that was instituted by the same authors to group the relatively ore mesophilous synanthropic vegetation, having its optimum in the Central and Atlantic Europe.

APERETALIA SPICAE-VENTI R. & J. Tx. in Malato Beliz *et al*. 1960

SYN: *Spergularietalia arvensis* Hüppe & Hofmeister 1990 p.p., *Centauretalia cyani* Tx. ex von Rochow 1951, p.p.

CHARACTER AND DIFFERENTIAL SPECIES: *Arabidopsis thaliana, Cerastium glomeratum, Fallopia convolvulus, Lathyrus sativus, Veronica arvensis, Veronica hederifolia*.

STRUCTURE AND ECOLOGY: Heliophilous therophitic weedy vegetation growing on siliceous loamy and sandy soils, within the meso- and supramediterranean humid bioclimatic belts, where the environmental conditions remind those of Central and Western Europe (thermo- to mesotemperate), for which the order has been instituted (Malato-Beliz *et al*., 1960).

SYNDYNAMISM: in Sicily, connected with the dynamic series of *Erico-Quercion ilicis*.

RANGE IN SICILY: NE Subsector (Bartolo *et al*. 1988, Guarino, 1997).

NOTES: in the original description, the order *Centauretalia cyani* was grouping the

following two alliances: *Aperion spicae venti* (=*Scleranthion annui*) and *Caucalion lappulae* (=*Caucalidion platycarpi*), the former referred to mesophilous and acidophilous, the latter to calciphilous and thermophilous segetal weedy vegetation (Tüxen, 1950). Later on, the latter alliance has been ascribed to the order *Secalinetalia* and, if so, the name *Centauretalia cyani* must be replaced by the name *Aperetalia spicae-venti*, as already noted in Malato-Beliz *et al*. (1960). In agreement with Rivas-Martínez *et al*. (2002), the proposal, made by Hüppe & Hofmeister (1990) to combine the weedy vegetation of wintercrops and summercrops into the order *Spergularietalia arvensis*, cannot be followed, due to the remarkable floristic, phenologic and ecological differences between these two kinds of plant communities, at least in the Mediterranean region, where little if any species is in common between wintergreen and summergreen crops.

SCLERANTHION ANNUI (Kruseman & Vlieger 1939) Sissingh in Westhoff et *al*. 1946

SYN: *Aphanion arvensis* Malato-Beliz, J. & R. Tx. 1960.

CHARACTER AND DIFFERENTIAL SPECIES: see order

STRUCTURE AND ECOLOGY: the only alliance in the order, represented in Sicily by the suballiance *Scleranthenion*, which differs from the *Arnoseridenion* (not recorded from Sicily) in being linked to sandy, rather than loamy, soils. For syndynamic features and distribution range, see order.

Legousio-Brizetum minoris Brullo & Furnari in Barbagallo *et al*. 1982 (Tab. 1: 1)

CHARACTER AND DIFFERENTIAL SPECIES: *Briza minor, Bunias erucago*

STRUCTURE AND ECOLOGY: Heliophilous therophitic weedy vegetation, found in cereal fields rotated with horticultural fields, like potatoes and legumes. It prefers acidic sandy soils, within the supramediterranean subhumid bioclimatic belt. The peak of blossoms occurs in April-May.

CROP: cereal fields

SYNDYNAMISM: in Sicily, connected with the dynamic series of *Erico-Quercion ilicis*.

RANGE IN SICILY: Peloritan District (Bartolo *et al*., 1988).

PAPAVERETALIA RHOEADIS Hüppe & Hofmeister ex Theurillat *et al*. 1995 em. Brullo, Scelsi & Spampinato 2001

SYN: *Secalietalia* Br.-Bl. in Br.-Bl., Gajewski, Wraber & Walas 1936 nom. inval. (art. 3f); *Secalinetalia* Br.-Bl.1931 em. 1936 nom. inval. (art. 3f); *Papaveretalia rhoeadis* Hüppe & Hofmeister 1990, nom. inval (art. 5);, *Centauretalia cyani* Tx., Lohmeyer & Preising in Tx. 1950, p.p.; *Centauretalia cyani* Tx. ex von Rochow 1951, p.p.; *Papaveretalia rhoeadis* Hüppe & Hofmeister ex Theurillat et al. 1995, p.p.

CHARACTER AND DIFFERENTIAL SPECIES: *Allium nigrum, Anacyclus tomentosus, Bupleurum fontanesii, Coronilla scorpioides, Euphorbia falcata, Filago germanica, Filago pyramidata, Galium tricornutum, Galium verrucosum, Geropogon glaber,*

Gladiolus italicus, Lathyrus cicera, Lathyrus ochrus, Lolium multiflorum, Lolium temulentum, Melilotus sulcatus, Misopates orontium, Nigella damascena, Polygonum patulum, Ranunculus arvensis, Rapistrum rugosum, Rhagadiolus stellatus, Silene fuscata, Valerianella eriocarpa, Valerianella microcarpa,

STRUCTURE AND ECOLOGY: Heliophilous therophitic weedy vegetation, growing on neutral to basic loamy or clayish soils, often rich in carbonates within the termo- to supramediterranean humid bioclimatic belts. With reference to Sicily, all the associations ascribed to this order have their bloom in April-May.

CROP: cereal fields.

SYNDYNAMISM: in Sicily, connected with the dynamic series of *Quercetea ilicis*.

RANGE IN SICILY: Widespread all over the Eu-Sicilian biogeographic sector.

NOTES: this order has been emended by Brullo *et al*. (2001) by excluding from it the alliance *Veronico-Euphorbion* Sissingh ex Passarge 1964, that groups associations of hoed fields and must be therefore ascribed to the class *Stellarietea mediae*.

RIDOLFION SEGETI Négre ex Rivas-Martínez *et al*. 1999

SYN: *Ridolfion segeti* Négre ex El Antri 1983, nom. inval. (art. 5).

CHARACTER AND DIFFERENTIAL SPECIES: *Bupleurum lancifolium, Adonis microcarpa, Phalaris paradoxa, Silene rubella, Ridolfia segetum*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, growing on neutral to alkaline loamy or clayish soils, within thermo- to lower mesomediterranean thermotypes.

CROP: see order.

SYNDYNAMISM: in Sicily, connected with the dynamic series of *Quercetalia calliprini*.

RANGE IN SICILY: see order.

BIBLIOGRAPHY: Brullo *et al*. (2002).

Capnophyllo peregrini-Medicaginetum ciliaris Di Martino & Raimondo 1976 (Tab. 1: 2)

CHARACTER AND DIFFERENTIAL SPECIES: *Capnophyllum peregrinum, Medicago ciliaris, Melilotus messanensis, Ranunculus trilobus, Scorpiurus vermiculatus, Medicago intertexta*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, found on clayish alluvial or vertic soils, with alkaline pH, within the thermediterranean dry to subhumid bioclimatic belt.

CROP: *Triticum durum*.

SYNDYNAMISM: see alliance.

RANGE IN SICILY: Drepano-Panormitan, Agrigentine and Catanense Districts (Di Martino & Raimondo 1976, Bartolo *et al*. 1983, Ferro 1990)

NOTE: *Capnophyllum peregrinum* is characterizing two other segetal coenoses, described for North-African countries: *Ridolfio segeti-Capnophylletum peregrini*

Guinochet 1977, from Tunisia, and *Capnophylletum peregrini* El Antri & Montégut ex Ferro 1990, from Morocco. Both these associations are found on clayish flattened soils, characterized by an hydric stagnation in winter and by a strong drought in summer (El Antri, 1985). The Sicilian *Capnophyllo peregrini-Medicaginetum ciliaris* can be considered a geographical vicariant of these two other associations.

Calendulo-Hypecoetum procumbentis Bartolo *et al*. 1990 (Tab. 1: 3)

CHARACTER AND DIFFERENTIAL SPECIES: *Calendula tripterocarpa, Hypecoum procumbens*

STRUCTURE AND ECOLOGY: heliophilous thermoxerophilous weedy vegetation found on Mediterranean red soils, within the thermediterranean dry bioclimatic belt.

CROP: *Triticum durum, Hordeum vulgare*.

SYNDYNAMISM: In Sicily, connected with the dynamic series of *Periplocion angustifoliae*.

RANGE IN SICILY: Pelagic sector (Bartolo *et al*., 1990).

ROEMERION HYBRIDAE Br.-Bl. ex Rivas-Martínez *et al*. 1999

SYN: *Secalion* Br.-Bl. 1931, nom. nud.; *Secalion* Br.-Bl. In Br.-Bl., Gajewski, Wraber & Walas 1936, nom inval. (art. 3f).

CHARACTER AND DIFFERENTIAL SPECIES: *Anchusa azurea, Bifora testiculata, Buglossoides arvensis, Linaria chalepensis, Linaria triphylla, Neslia paniculata* ssp. *thracica*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, growing on neutral to alkaline loamy or clayish soils, with optimum in the upper meso- to supramediterranean thermotypes. Under humid ombrotypes, it may eventually be recorded in the thermo- and lower mesomediterranean, as well. (Di Martino & Raimondo, 1976; Bartolo *et al*., 1983; Ferro, 1988; 1990, 2005; Lo Cicero & Piccione, 1977).

CROP: see order.

SYNDYNAMISM: in Sicily, connected with the dynamic series of *Quercetalia ilicis*.

RANGE IN SICILY: see order.

Legousio hybridae-Biforetum testiculatae Di Martino & Raimondo 1976 (Tab. 1: 4)

CHARACTER AND DIFFERENTIAL SPECIES: *Legousia hybrida*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, found on brown to vertic soils, with neutral to subalkaline pH, within the thermo- and mesomediterranean bioclimatic belts.

CROP: *Triticum durum*.

SYNDYNAMISM: connected with the dynamic series of *Quercion ilicis* and *Oleo-Ceratonion*.

RANGE IN SICILY: Agrigentine district, with some outposts in the Drepano-Panormitan and Madonie ones (Di Martino & Raimondo, 1976; Ferro, 1990).

Adonido cupanianae-Anthemidetum incrassatae Bartolo *et al*. 1983 (Tab. 1: 5)

CHARACTER AND DIFFERENTIAL SPECIES: *Adonis annua* ssp. *cupaniana, Allium trifolia-*

tum, Anthemis arvensis ssp. *incrassata, Rumex acetosa, Silene vulgaris* ssp. *angustifolia, Vicia peregrina*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, found on brown soils deriving from Miocenic limestones, within the thermo- and mesomediterranean bioclimatic belts.

CROP: *Triticum durum, Hordeum vulgare*

SYNDYNAMISM: connected with the dynamic series of *Oleo-Quercetum virgilianae* and *Pistacio-Quercetum ilicis*.

RANGE IN SICILY: Hyblaean District (Bartolo *et al*., 1983; Ferro, 1990).

Vicio bithynicae-Ranunculetum arvensis Bartolo *et al*. (1983) (Tab. 1: 6)

CHARACTER AND DIFFERENTIAL SPECIES: *Vicia bithinica, Poa trivialis, Asperula arvensis, Trisetaria parviflora*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, found on oligotrophic andosoils deriving from basaltic rocks, within the upper meso- and supramediterranean humid bioclimatic belts.

CROP: *Triticum durum, Hordeum vulgare*.

SYNDYNAMISM: connected with the dynamic series of *Mespilo-Quercetum virgilianae*.

RANGE IN SICILY: Hyblaean District (Bartolo *et al*., 1983, Ferro, 1990).

Rapistro rugosi-Melilotetum infestae Bartolo *et al*. 1983 (Tab. 1: 7)

CHARACTER AND DIFFERENTIAL SPECIES: *Melilotus infesta, Rapistrum rugosum, Tetragonolobus conjugatus, Silene neglecta, Lavatera trimestris*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, found on marly to clayish soils, within the mesomediterranean subhumid bioclimatic belt.

CROP: *Triticum durum*

SYNDYNAMISM: connected with the dynamic series of *Oleo-Quercetum virgilianae*.

RANGE IN SICILY: Hyblaean District (Bartolo *et al*., 1983; Ferro, 1990).

Valerianello dentatae-Medicaginetum scutellatae Ferro 1988 (Tab. 1: 8)

CHARACTER AND DIFFERENTIAL SPECIES: *Medicago scutellata, Lactuca serriola, Valerianella dentata*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, found on clayish soils, within the mesomediterranean upper dry to lower subhumid bioclimatic belt.

CROP: *Triticum durum*.

SYNDYNAMISM: connected with the dynamic series of *Quercion ilicis*.

RANGE IN SICILY: Catanense district, with some outposts in the Agrigentine and Nebrodi ones (Ferro 1988, 1990).

Lolio rigidi-Raphanetum raphanistri Ferro 2005 (Tab. 1: 9)

CHARACTER AND DIFFERENTIAL SPECIES: *Lolium rigidum, Rhaphanus raphanistrum*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, found on andosoils within the thermo- to mesomediterranean humid bioclimatic belts.

CROP: *Triticum durum*.

SYNDYNAMISM: connected with the dynamic series of *Erico-Quercion ilicis*

RANGE IN SICILY: Aeolian District (Ferro 2005).

STELLARIETEA MEDIAE R. Tx., Lohmeyer & Preising ex v. Rochow 1951, em.

SYN: *Chenopodietea* Br.-Bl. in Br.-Bl., Roussine & Nègre 1952, *Stellarietea mediae* R. Tx., Lohmeyer & Preising ex R. Tx. 1950, p.p.

CHARACTER AND DIFFERENTIAL SPECIES: *Amaranthus deflexus, Amaranthus lividus, Amaranthus viridis, Ammi majus, Ammi visnaga, Aster squamatus, Agrostis stolonifera, Borago officinalis, Bromus rigidus, Diplotaxis erucoides, Calendula arvensis, Calendula tripterocarpa, Capsella bursa-pastoris, Chenopodium album, Chenopodium ambrosioides, Chenopodium murale , Chenopodium vulvaria, Chrysanthemum segetum, Centaurea melitensis, Conyza bonariensis, Conyza canadensis, Conyza floribunda, Diplotaxis viminea, Ecballium elaterium, Emex spinosa, Erodium cicutarium , Erodium ciconium, Erodium malacoides, Euphorbia heliscopia, Euphorbia peplus, Euphorbia nutans, Fumaria capreolata, Fumaria officinalis, Fumaria officinalis ssp. wirtgenii, Fumaria parviflora, Fumaria densiflora, Geranim molle, Lamium amplexicaule, Lavatera cretica, Malva sylvestris, Mercurialis annua, Oxalis pes-caprae, Raphanus raphanistrum, Sinapis arvensis var. orientalis, Senecio vulgaris , Solanum nigrum, Sonchus asper, Sonchus oleraceus, Stellaria media, Stellaria neglecta, Urtica urens , Urtica membranacea,, Xanthium spinosum*.

STRUCTURE AND ECOLOGY: nitrophilous synanthropic vegetation, dominated by therophytes or, more rarely by adventitious geophytes, like *Oxalis pes-caprae*, found in ruderal and untilled habitats, hoed fields, road-sides. Depends on the habitat and on the crop seasonality. Two fundamental life-cycles can be observed in Sicily: one in winter-spring and one in summer-fall.

SYNDYNAMISM: In Sicily, the weedy vegetation of *Stellarietea mediae* usually links to the perennial grasslands of *Lygeo-Stipetea* in dry habitats, or of *Molinio-Arrhenateretea* under more mesic conditions.

RANGE IN SICILY: Widespread all over the Eu-Sicilian biogeographic sector (Bartolo *et al*., 1990; Brullo, 1983a, 1983b; Brullo & Marcenò, 1979, 1985; Brullo & Spampinato, 1985; Ferro, 1980; Guarino, 1997; Maugeri, 1980; Maugeri & Leonardi, 1974).

NOTES: This class, in its original description was including, as well, the segetal vegetation of *Centauretalia cyani*. Since the segetal vegetation is here ascribed to an autonomous class (*Papaveretea rhoeadis*), the name *Stellarietea mediae* must be emended.

POLYGONO-CHENOPODIETALIA POLISPERMI R. Tx. & Lohmeyer in R. Tx. 1950 em. J. Tx. in Lohmeyer et al. 1962

SYN: *Solano nigri-Polygonetalia convolvuli* (Sissingh in Westhoff, Dijk & Passchier 1946) O. Bolòs 1962 p. p.; *Polygono-Chenopodietalia albi* R. Tx. & Lohm. in R. Tx. 1950 em. J. Tx. 1966

CHARACTER AND DIFFERENTIAL SPECIES: *Calendula arvensis, Erodium cicutarium, Euphorbia helioscopia, Euphorbia peplus, Lamium amplexicaule, Sonchus asper.*

STRUCTURE AND ECOLOGY: nitrophilous vegetation found in hoed fields. In the Mediterranean Region it has its optimum in winter- spring and it colonizes every kind of soil, while in the Temperate and Atlantic Europe it dwells damp clayish soils and has its optimum in summer.

CROP: non watered woody and herbaceous cultivations.

SYNDYNAMISM: in Sicily, at the beginning of summer, the vegetation of *Polygono-Chenopodietalia polispermi* is replaced by the one of *Solano-Polygonetalia convolvuli*, which shares the same habitat. Both kinds are dynamically linked to the perennial grasslands mentioned in the commentary upon *Stellarietea mediae*.

RANGE IN SICILY: Eu-Sicilian biogeographic sector (Brullo & Marcenò, 1985).

FUMARION WIRTGENII-AGRARIAE Brullo in Brullo & Marcenò 1985

CHARACTER AND DIFFERENTIAL SPECIES: *Fumaria agraria, Fumaria flabellata, Fumaria gaillardotii, Fumaria officinalis* ssp. *wirtgenii, Fumaria parviflora, Linaria reflexa, Rumex bucephalophorus, Veronica cymbalaria*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, linked to hoed and fertilized cultivations within the thermomediterranean bioclimatic belt, with some outposts in the mesomediterranean one.

CROP: vineyards, orchards and hoed fields.

SYNDYNAMISM: connected with the dynamic series of *Quercion ilicis* and *Oleo-Ceratonion*. In case of cessation of the agricultural practices, this vegetation tends to be replaced by the coenoses of *Echio-Galactition*, foreboding the perennial subnitrophilous grasslands of *Bromo-Oryzopsion miliaceae* and, later on, the dry grasslands of *Hyparrhenion hirtae*.

RANGE IN SICILY: Eu-Sicilian biogeographic sector (Bartolo *et al*. 1990, Brullo & Marcenò, 1985).

Diplotaxietum vimineo-erucoidis Brullo & Marcenò 1985 (Tab. 2: 1)

CHARACTER AND DIFFERENTIAL SPECIES: *Diplotaxis viminea*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing woody cultivations on marly to clayish soils, chiefly within the thermomediterranean bioclimatic belt, marginally recorded in the mesomediterranean one.

CROP: vineyards, olive-, almond- and carob groves.

SYNDYNAMISM: connected with the dynamic series of *Quercion ilicis* and *Oleo-Ceratonion*.

RANGE IN SICILY: coastal and hilly sites of the Hyblaean, Camarino-Pachinense, Agrigentine and Drepano-Panormitan Districts (Brullo & Marcenò, 1985).

Fumario densiflorae-Veronicetum hederifoliae Brullo & Marcenò 1985 (Tab. 2: 2)

CHARACTER AND DIFFERENTIAL SPECIES: *Fumaria densiflora, Veronica hederifolia*

STRUCTURE AND ECOLOGY: semi-heliophilous therophitic weedy vegetation, preferring dense herbaceous broad-leaved cultivations, able to shade the ground. These cultivations are often rotated with cereal fields, so that many weeds belonging to *Papaveretea rhoeadis* may be found within the association at issue. The most typical habitat includes brown soils and marly to clayish soils, within the thermomediterranean bioclimatic belt.

CROP: legumes (*Vicia faba*, *Pisum sativum, Lens culinaris, Cicer arietinum*), artichokes and potatoes.

SYNDYNAMISM: chiefly connected with the dynamic series of the *Oleo-Ceratonion*; eventually with that of the *Quercion ilicis*.

RANGE IN SICILY: Southern Sicilian Subsector, as well as Catanense and Aeolian Districts (Brullo & Marcenò, 1985).

Fumario parviflorae-Geranietum tuberosi Brullo & Marcenò 1985 (Tab. 2: 3)

CHARACTER AND DIFFERENTIAL SPECIES: *Geranim tuberosum*

STRUCTURE AND ECOLOGY: subsciaphilous therophitic weedy vegetation, colonizing mixed woody and herbaceous cultivations on brown soils, within the thermomediterranean bioclimatic belt.

CROP: olive-, almond- and carob groves, associated with horticultural fields.

SYNDYNAMISM: connected with the dynamic series of the *Oleo-Ceratonion*.

RANGE IN SICILY: Southern Sicilian Subsector (Brullo & Marcenò, 1985).

Sileno coloratae-Lobularietum libycae Brullo & Marcenò 1985 (Tab. 2: 4)

CHARACTER AND DIFFERENTIAL SPECIES: *Lobularia libyca*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing vineyards on coastal sandy soils, within the thermomediterranean dry bioclimatic belt.

CROP: vineyards.

SYNDYNAMISM: connected with the dynamic series of *Ephedro-Juniperetum macrocarpae* and *Junipero-Quercetum calliprini*. The cessation of the agricultural practices leads to the natural psammophilous annual vegetation of *Malcolmietalia*, whose representative species are frequently found within the association at issue.

RANGE IN SICILY: Camarino-Pachinense District (Brullo & Marcenò, 1985).

Raphano-Erucetum sativae Brullo & Marcenò 1985 (Tab. 2: 5)

CHARACTER AND DIFFERENTIAL SPECIES: *Eruca sativa*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation of legume-fields,

linked to sandy soils within the thermomediterranean bioclimatic belt.

CROP: legumes (*Vicia faba*, *Pisum sativum, Vignea* spp., *Phaseolus* spp., *Lens culinaris, Cicer arietinum*).

SYNDYNAMISM: connected with the dynamic series of *Stipo bromoidis-Quercetum suberis*.

RANGE IN SICILY: Camarino-Pachinense District (Brullo & Marcenò, 1985).

Ammio-Torilidetum nodosae Brullo & Marcenò 1985 (Tab. 2: 6)

CHARACTER AND DIFFERENTIAL SPECIES: *Torilis nodosa, Ammi majus*

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, typically associated with carrot cultivations, subjected to drastic agricultural practices and to the use of herbicides. It is found within the thermomediterranean bioclimatic belt.

CROP: carrots

SYNDYNAMISM: connected with the dynamic series of the *Oleo-Ceratonion*.

RANGE IN SICILY: Camarino-Pachinense District (Brullo & Marcenò, 1985).

Herniario-Sperguletum arvensis Brullo & Marcenò 1985 (Tab. 2: 7)

CHARACTER AND DIFFERENTIAL SPECIES: *Spergula arvensis, Herniaria hirsuta*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing vineyards on loose andosoils, rich in volcanic sands, within the thermomediterranean subhumid bioclimatic belt.

CROP: vineyards.

SYNDYNAMISM: connected with the dynamic series of the *Erico-Quercion ilicis*.

RANGE IN SICILY: Aeolian Districts (Brullo & Marcenò, 1985; Ferro, 2005).

Loto-Anthemidetum incrassatae Brullo & Marcenò 1985 (Tab. 2: 8)

CHARACTER AND DIFFERENTIAL SPECIES: *Anthemis arvensis* ssp. *incrassata, Lotus subbiflorus, Medicago tornata*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing woody cultivations on sandy andosoils in the mesomediterranean bioclimatic belt.

CROP: vineyards and orchards.

SYNDYNAMISM: connected with the dynamic series of *Erico-Quercetum virgilianae*.

RANGE IN SICILY: Northern sector of the Etnean District (Brullo & Marcenò, 1985).

Fumarietum parviflorae-bastardii Bartolo, Brullo, Minissale & Spampinato 1990 (Tab. 2: 9)

CHARACTER AND DIFFERENTIAL SPECIES: *Fumaria bastardii*.

STRUCTURE AND ECOLOGY: semi-heliophilous therophitic weedy vegetation of legume-fields and other hoed cultivations, occurring on Mediterranean red soils within the thermomediterranean dry bioclimatic belt.

CROP: legumes (*Vicia faba*, *Pisum sativum, Lens culinaris, Cicer arietinum*), artichokes and potatoes.

SYNDYNAMISM: connected with the dynamic series of the *Periplocion angustifoliae*.

RANGE IN SICILY: Lopadusan District (Bartolo *et al*. 1990).

Fumario parviflorae-Resedetum luteae Bartolo, Brullo, Minissale & Spampinato 1990 (Tab. 2: 10)

CHARACTER AND DIFFERENTIAL SPECIES: *Reseda lutea*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing woody cultivations on sandy soils, within the thermomediterranean dry bioclimatic belt.

CROP: orchards and vineyards

SYNDYNAMISM: connected with the dynamic series of the *Periplocion angustifoliae*.

RANGE IN SICILY: Lopadusan District (Bartolo *et al*. 1990).

SOLANO-POLYGONETALIA CONVOLVULI (Sissingh in Westhoff et al. 1946) O. Bolòs 1962

CHARACTER AND DIFFERENTIAL SPECIES: *Amaranthus albus, Amaranthus blitoides, Amaranthus graecizans, Amaranthus retroflexus, Chenopodium opulifolium, Cyperus rotundus, Digitaria sanguinalis, Eragrostis cilianensis, Euphorbia chamaesyce ssp. chamaesyce, Heliotropium europaeum, Portulaca oleracea, Setaria decipiens, Setaria glauca, Setaria verticillata, Solanum luteum, Sorghum halepensis, Trilobus terrestris*.

STRUCTURE AND ECOLOGY: weedy vegetation of hoed fields, with optimum in the summer-fall season. In the Mediterranean region it is found on every kind of soil, while in the Temperate and Atlantic Europe it is linked to sandy or loamy soils.

CROP: woody and herbaceous cultivations, eventually watered during the summer months.

SYNDYNAMISM: in Sicily, at the beginning of summer, the vegetation of *Solano-Polygonetalia convolvuli* replaces the one of *Polygono-Chenopodietalia polispermi*, that shares the same habitat. Both kinds are dynamically linked to the perennial grasslands mentioned in the commentary upon *Stellarietea mediae*.

RANGE IN SICILY: Eu-Sicilian biogeographic sector (Brullo & Marcenò, 1980, 1985; Maugeri, 1980; Maugeri *et al*., 1980).

CHENOPODION BOTRYOS Brullo & Marcenò 1980

CHARACTER AND DIFFERENTIAL SPECIES: *Brassica fruticulosa, Chenopodium botrys*.

STRUCTURE AND ECOLOGY: therophitic weedy vegetation, linked to hoed and fertilized cultivations, non watered during the summer months. In Sicily, it is found on acidic siliceous soils, within the thermo- and mesomediterranean bioclimatic belts.

CROP: vineyards and orchards.

SYNDYNAMISM: see order

RANGE IN SICILY: NE Subsector of Sicily and Algusian District (Brullo & Marcenò, 1980; Brullo & Siracusa 1996; Ferro, 2005).

Heliotropietum dolosi Brullo & Marcenò 1980 (Tab. 3: 1)

CHARACTER AND DIFFERENTIAL SPECIES: *Heliotropium dolosum, Silene behen*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing hoed and fertilized cultivations on andosoils, within the thermomediterranean dry bioclimatic belt.

CROP: vineyards, more rarely orchards and horticultural fields.

SYNDYNAMISM: connected with the dynamic series of *Periplocion angustifoliae*.

RANGE IN SICILY: Algusian District (Brullo & Marcenò, 1980; Brullo & Siracusa 1996)

Heliotropietum bocconei Brullo & Marcenò 1980 (Tab. 3: 2)

CHARACTER AND DIFFERENTIAL SPECIES: *Heliotropium bocconei*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing hoed and fertilized cultivations on andosoils, within the meso- and supramediterranean bioclimatic belts.

CROP: vineyards and orchards

SYNDYNAMISM: connected with the dynamic series of *Erico-Quercion ilicis*.

RANGE IN SICILY: Etnean District (Brullo & Marcenò, 1980).

Amaranto graecizantis-Setarietum verticillati Ferro 2005 (Tab. 3: 3)

CHARACTER AND DIFFERENTIAL SPECIES: *Amaranthus graecizans, Setaria verticillata*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing hoed and fertilized cultivations on volcanic sandy soils, within the thermomediterranean bioclimatic belt. Two subassociations can be recognized: *digitarietosum sanguinalis,* having its blossom in full summer, and *oxalidetusum pedis-caprae*, that appears after the first autumnal rains.

CROP: vineyards

SYNDYNAMISM: connected with the dynamic series of *Erico-Quercion ilicis*.

RANGE IN SICILY: Aeolian District (Ferro, 2005)

DIPLOTAXION ERUCOIDIS Br.-Bl. in Br.-Bl. et al. 1936 em. Brullo & Marcenò 1980

CHARACTER AND DIFFERENTIAL SPECIES: *Ammi visnaga, Chrozophora tinctoria, Helminthotheca echioides, Hypericum triquetrifolium*.

STRUCTURE AND ECOLOGY: therophitic weedy vegetation, linked to hoed and fertilized cultivations, non watered during the summer months. In Sicily, it is found on neutral to alkaline soils deriving from limestones, marls and clay deposits, within the thermo- and mesomediterranean bioclimatic belts (Bartolo *et al*. 1990; Brullo & Marcenò, 1980, 1985; Ferro, 1980).

CROP: vineyards, olive-groves, orchards, stubble-fields.

SYNDYNAMISM: see order.

RANGE IN SICILY: see order.

Chrozophoro tinctoriae-Kickxietum integrifoliae Brullo & Marcenò 1980 (Tab. 3: 4)

CHARACTER AND DIFFERENTIAL SPECIES: *Andrachne telephioides, Echinophora tenuifolia*, *Kickxia spuria* ssp. *integrifolia, Teucrium spinosum*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing hoed and fertilized cultivations on clayish soils. In its typical aspect (corresponding to the subass. *typicum*), this association can be observed in the thermo- and mesomediterranean bioclimatic belts, while a subass. *teucrietosum spinosi* has been described for the mountains of NW-Sicily, within the supramediterranean bioclimatic belt.

CROP: vineyards, cotton- and stubble fields, orchards.

SYNDYNAMISM: connected with the dynamic series of *Quercion ilicis* and *Oleo-Ceratonion*.

RANGE IN SICILY: Western, central and southern subsectors (Brullo & Marcenò, 1980).

Amarantho lividi-Eragrostietum barrelieri Brullo & Marcenò 1985 (Tab. 3: 5)

CHARACTER AND DIFFERENTIAL SPECIES: *Amaranthus lividus, Eragrostis barrelieri*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing hoed and fertilized cultivations on sandy soils within the thermomediterranean bioclimatic belt.

CROP: vineyards.

SYNDYNAMISM: connected with the dynamic series of *Stipo bromoidis-Quercetum suberis*.

RANGE IN SICILY: Camarino-Pachinense District (Brullo & Marcenò, 1985).

Chrozophoro tinctoriae-Heliotropietum dolosi Bartolo, Brullo, Minissale & Spampinato 1990 (Tab. 3: 6)

CHARACTER AND DIFFERENTIAL SPECIES: *Heliotropium dolosum*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing hoed and fertilized cultivations on alkaline soils deriving from limestones, within the thermo- and inframediterranean dry bioclimatic belts.

CROP: vineyards.

SYNDYNAMISM: connected with the dynamic series of *Periplocion angustifoliae*.

RANGE IN SICILY: Lopadusan District (Bartolo *et al*. 1990).

DIGITARIO ISCHAEMI-SETARION VIRIDIS Sissingh in Westhoff *et al*. 1946 corr.

SYN: *Panico-Setarion* Sissingh in Westhoff et al. 1946

Digitario ischaemi-Setarieion viridis (Sissingh in Westhoff *et al*. 1946) Oberd. 1957

CHARACTER AND DIFFERENTIAL SPECIES: *Setaria viridis, Echinochloa crus-galli, Galinsoga parviflora*.

STRUCTURE AND ECOLOGY: therophitic weedy vegetation, linked to hoed and fertilized

cultivations, regularly watered during the summer months. In Sicily, it is found within the thermo- and mesomediterranean bioclimatic belts.

CROP: citrus groves, corn and horticultural fields.

SYNDYNAMISM: see order.

RANGE IN SICILY: see order.

Setario ambiguae-Cyperetum rotundi Brullo, Scelsi & Spampinato 2001 (Tab. 3: 7)

SYN: *Fumario-Cyperetum rotundi* Brullo & Marcenò 1985 non Horvatić 1960, *Amaranto-Cyperetum rotundi* Maugeri 1980, nom. inval. (Art. 5).

CHARACTER AND DIFFERENTIAL SPECIES: *Cyperus aureus*.

STRUCTURE AND ECOLOGY: sciaphilous therophitic weedy vegetation, colonizing citrus groves on alluvial soils, within the thermo- and mesomediterranean bioclimatic belts.

CROP: citrus groves (in Sicily, mainly oranges, lemons, tangerine and temple oranges).

SYNDYNAMISM: connected with the dynamic series of the *Oleo-Quercetum virgilianae*.

RANGE IN SICILY: Recorded from the Etnean, Catanense and Hyblaean districts (Brullo & Marcenò 1985; Brullo *et al*., 2001; Maugeri, 1980); it is likely to occur, as well, in the Drepano-Panormitan district.

Setario glaucae-Echinochloetum colonum A. & O. Bolòs ex O. Bolòs 1956 (Tab. 3: 8)

SYN: *Amarantho-Cyperetum rotundi echinochloetosum coloni* Maugeri et al. 1980, nom. inval. (Art. 5).

CHARACTER AND DIFFERENTIAL SPECIES: *Echinochloa colonum*.

STRUCTURE AND ECOLOGY: heliophilous therophitic weedy vegetation, colonizing corn and horticultural fields on alluvial soils, within the thermo- and mesomediterranean bioclimatic belts.

CROP: corn and horticultural fields (namely peppers, eggplants, tomatoes, pumpkins, cucumbers, marrows, water- and honey melons).

SYNDYNAMISM: connected with the dynamic series of the *Oleo-Quercetum virgilianae*.

RANGE IN SICILY: Etnean, Catanense and Hyblaean districts (Brullo & Marcenò 1985; Maugeri, 1980).

THERO-BROMETALIA (Rivas-Goday & Rivas-Martínez ex Esteve 1973) O. Bolòs 1975

SYN: *Brometalia rubenti-tectorum* Rivas-Martínez & Izco 1977

CHARACTER AND DIFFERENTIAL SPECIES: *Astragalus hamosus, Avena barbata, Avena sterilis, Bromus hordeaceus, Bromus madritensis, Bromus sterilis, Catapodium rigidum, Chrysanthemum coronarium, Echium plantagineum, Galactites elegans, Hedypnois cretica, Hedysarum coronarium, Hirschfeldia incana, Lolium rigidum, Lotus ornithopodioides, Malva nicaeensis, Malva parviflora, Medicago orbicularis, Medicago polymorpha, Medicago tribuloides, Vicia villosa*.

STRUCTURE AND ECOLOGY: subnitrophilous thermoxerophilous therophytic vegetation chiefly growing in abandoned fields and uncultivated ruderal areas road sides and disturbed habitats in Mediterranean region. Some phytocoenoses ascribed to this order, however, are linked to woody cultivations.

CROP: vineyards.

SYNDYNAMISM: in Sicily, the vegetation ascribed to this order is dynamically connected to the one of *Quercetea ilicis*. If disturbance decreases, it may evolve into annual dry grasslands of *Stipo-Trachynietea dystachiae*, forming a patchy mosaic with the perennial grasslands of *Lygeo-Stipetea*.

RANGE IN SICILY: commonly found in the thermo- to supramediterranean vegetation belts of the Eu-Sicilian Domain (Brullo, 1983a, 1983b; Brullo & Marcenò, 1985; Brullo & Spampinato, 1986; Ferro, 2005).

FEDIO GRACILIFLORAE-CONVOLVULION CUPANIANI Brullo & Spampinato 1986

CHARACTER AND DIFFERENTIAL SPECIES: *Brassica sylvestris, Cerinthe major, Convolvulus cupanianus, Fedia graciliflora, Geranium dissectum, Medicago intertexta, Melilotus infesta, Ranunculus ficaria, Scorpiurus vermiculatus, Senecio vernus, Vicia sicula*.

STRUCTURE AND ECOLOGY: heliophilous thermoxerophilous subnitrophilous therophitic weedy vegetation, colonizing vineyards, abandoned fields and road-sides on clayish to loamy soils, neutral to alkaline, within the thermo- and mesomediterranean bioclimatic belts.

CROP: vineyards

SYNDYNAMISM: see order

RANGE IN SICILY: Drepano-Panormitan District (Brullo & Spampinato, 1986).

Chamaemelo-Silenetum fuscatae Brullo & Spampinato 1986 (Tab. 3: 9)

CHARACTER AND DIFFERENTIAL SPECIES: *Allium dentiferum, A. pallens, A. trifoliatum, Chamaemelum fuscatum, Silene fuscata*.

STRUCTURE AND ECOLOGY: heliophilous thermoxerophilous subnitrophilous weedy vegetation, constituted by therophytes and some geophytes, growing on vertisoils derived from marl and clay deposits, within the thermo- and mesomediterranean bioclimatic belts.

CROP: vineyards.

SYNDYNAMISM: connected with the dynamic series of *Quercion ilicis*.

RANGE IN SICILY: see alliance.

URTICO-SCROPHULARIETALIA PEREGRINAE Brullo in Brullo & Marcenò 1985

CHARACTER AND DIFFERENTIAL SPECIES: *Arisarum vulgare, Arum italicum, Fumaria capreolata, Galium aparine, Parietaria diffusa, Scrophularia peregrina, Urtica membranacea*.

STRUCTURE AND ECOLOGY: sciaphilous nitrophilous vegetation, dominated by tall therophytes and geophytes, growing on deep, often humid soils, within the thermo- and mesomediterranean bioclimatic belts. It can be found in ruderal and urban habitats, but also in mature citrus groves, where soil is densely shaded by the canopy of the cultivated trees. With reference to Sicily, the vegetative optimum occurs in May-June.

CROP: citrus groves.

SYNDYNAMISM: in Sicily, the vegetation ascribed to this order is dynamically connected to the maquis of *Oleo-Ceratonion*, sometimes to the thermophilous oakwoods of *Quercetalia ilicis*.

RANGE IN SICILY: commonly found in the Eu-Sicilian Domain (Brullo & Marcenò, 1985; Raimondo *et al*., 1980).

VERONICO-URTICION URENTIS Brullo in Brullo & Marcenò 1985

CHARACTER AND DIFFERENTIAL SPECIES: *Veronica persica, Urtica urens*.

STRUCTURE AND ECOLOGY: this alliance groups the weedy vegetation of mature citrus groves, that are cultivated on deep andosoils and alluvial soils, regularly fertilized and watered once or twice during the dry summer months.

CROP: citrus groves

SYNDYNAMISM: see order

RANGE IN SICILY: see order

Fumario-Stellarietum neglectae Maugeri ex Brullo & Marcenò 1985 (Tab. 4: 1)

SYN: *Fumario-Stellarietum neglectae* Maugeri 1980 nom. inval. (Art. 5)

CHARACTER AND DIFFERENTIAL SPECIES: *Stellaria neglecta*.

STRUCTURE AND ECOLOGY: sciaphilous and nitrophilous weedy vegetation of mature citrus groves, growing on deep, well drained andosoils rich in volcanic sand. It is found within the thermomediterranean bioclimatic belt.

CROP: citrus groves

SYNDYNAMISM: see order

RANGE IN SICILY: Etnean and Catanense Districts (Maugeri, 1980; Brullo & Marcenò, 1985).

Bromo-Brassicetum sylvestris Brullo & Marcenò 1985 (Tab. 4: 2)

CHARACTER AND DIFFERENTIAL SPECIES: *Brassica rapa* ssp. *sylvestris, Bromus sterilis*.

STRUCTURE AND ECOLOGY: sciaphilous and nitrophilous weedy vegetation of mature citrus groves, growing on clayish or loamy alluvial soils deriving from limestones and marls, within the thermomediterranean bioclimatic belt.

CROP: citrus groves

SYNDYNAMISM: see order

RANGE IN SICILY: Hyblaean District (Brullo & Marcenò, 1985).

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Appendix

Table 1: Associations of *Papaveretea rhoeadis* from Sicily

Association Nr.	1	2a	2b	3	4	5	6	7	8	9
Relevés Nr.	8	20	12	6	25	18	8	7	10	7
Char. Association										
Briza minor	100	.	.	.	.	.	.	.	.	.
Bunias erucago	25	.	.	.	.	.	.	.	.	.
Medicago ciliaris	.	70	100		12	.	12	14	60	.
Capnophyllum peregrinum	.	45	58	.	8	.	.	.	.	.
Ranunculus trilobus	.	45	92	.	.	.	.	.	.	.
Melilotus messanensis	.	40	50	.	.	.	.	.	.	.
Medicago intertexta	.	10	42	.	.	.	.	.	.	.
Scorpiurus vermiculatus	.	35	.	.	.	.	.	.	.	.
Calendula tripterocarpa	.	.	.	100	.	.	.	.	.	.
Hypecoum procumbens	.	.	.	100	.	.	.	.	.	.
Legousia hybrida	.	35	.	.	100	100	100	71	80	.
Anthemis arvensis ssp. incrassata	.	.	.	.	.	100	.	.	.	.
Adonis annua ssp. cupaniana	.	.	.	.	.	88	25	14	20	.
Silene vulgaris ssp. angustifolia	.	.	.	17	.	88	.	28	10	14
Rumex acetosa	.	.	.	.	.	61	.	.	.	.
Vicia peregrina	.	.	.	.	.	55	.	.	.	.
Allium trifoliatum	.	.	.	.	.	33	.	.	.	.
Vicia bithinica	.	.	.	.	.	.	100	.	.	.
Poa trivialis	.	.	.	.	.	.	62	14	.	.
Asperula arvensis	.	5	.	.	8	.	75	.	.	.
Trisetaria parviflora	.	.	.	.	.	.	75	.	.	.
Melilotus infesta	.	.	.	.	.	.	.	100	60	.
Rapistrum rugosum	.	.	.	.	.	.	.	86	.	.
Tetragonolobus conjugatus	.	.	.	.	.	.	.	86	.	.
Silene neglecta	.	.	.	.	.	.	.	57	.	.
Lavatera trimestris	.	30	.	.	.	.	.	57	.	.
Medicago scutellata	.	10	8	.	4	.	.	43	80	28
Lactuca serriola	.	.	.	.	.	.	.	.	80	.
Valerianella dentata	.	.	.	.	20	.	.	.	60	.
Avena sterilis ssp. macrocarpa	.	.	.	.	.	.	.	.	.	.
Char. *Scleranthion annui* & *Aperetalia spicae-venti*										
Arabidopsis thaliana	100	.	.	.	.	.	.	.	.	.
Veronica hederifolia	75	.	.	.	.	22	25	.	.	.
Cerastium glomeratum	62	.	.	.	.	.	37	14	.	.
Veronica arvensis	25	.	.	.	.	.	25	28	.	.
Fallopia convolvulus	25	.	.	.	.	.	.	.	.	43
Lathyrus sativus	25	.	.	.	.	.	.	.	.	.

TABLE 1: Associations of *Papaveretea rhoeadis* from Sicily (continued)

Association Nr.	1	2a	2b	3	4	5	6	7	8	9
Relevés Nr.	8	20	12	6	25	18	8	7	10	7
Char. *Ridolfion segeti*										
Bupleurum lancifolium	.	40	75	.	36	88	37	86	70	.
Phalaris paradoxa	.	95	100	.	88	.	25	71	80	43
Ridolfia segetum	.	95	100	.	88	17	.	71	70	.
Adonis microcarpa	.	10	.	100	36	.	.	.	.	.
Silene rubella	.	.	.	17	.	.	.	.	.	.
Char. *Roemerion hybridae*										
Bifora testiculata	12	5	.	.	88	88	87	14	70	.
Neslia paniculata ssp. thracica	.	.	.	.	20	100	100	14	30	.
Anchusa azurea	.	.	.	.	4	.	12	14	10	57
Linaria chalepensis	.	.	.	.	32	27	62	43	.	.
Buglossoides arvensis	.	.	.	.	.	11	37	28	.	.
Linaria triphylla	.	.	.	.	.	61	.	.	.	.
Char. *Papaveretalia rhoeadis*										
Lathyrus ochrus	.	20	75	66	20	22	87	28	.	43
Allium nigrum	.	30	.	.	52	66	62	71	40	43
Galium tricornutum	.	50	100	.	100	100	100	100	70	.
Melilotus sulcatus	.	90	42	100	68	72	.	57	70	.
Bupleurum fontanesii	.	70	67	.	48	16	62	57	60	.
Nigella damascena	.	10	.	83	60	94	37	57	10	.
Silene fuscata	.	90	17	.	100	16	62	14	70	.
Lolium temulentum	.	5	33		16	38	50	.	20	.
Polygonum patulum	.	60	75	.	76	16	25	57	30	.
Coronilla scorpioides	.	.	8	50	48	55	37	57	.	.
Filago pyramidata	.	40	.	.	76	88	87	57	70	.
Gladiolus italicus	.	.	25	.	.	IV	87	86	80	43
Ranunculus arvensis	.	25	.	.	88	22	100	57	80	.
Rhagadiolus stellatus	.	.	.	33	28	100	62	71	50	.
Misopates orontium	.	5	17	.	.	66	37	57	.	43
Geropogon glaber	.	.	33	.	20	27	.	28	20	.
Valerianella eriocarpa	.	.	.	.	8	22	37	43	20	.
Valerianella microcarpa	.	10	.	.	4	27	37	.	60	.
Lolium multiflorum	.	25	.	.	84	.	.	.	20	57
Rapistrum rugosum		5	17	.	.	.	.	.	20	.
Galium verrucosum	.	.	.	100	.	.	.	14	.	43
Anacyclus tomentosus	.	15	42	.	56	.	.	.	.	.
Euphorbia falcata	.	.	8	.	.	61	.	43	.	.
Lathyrus cicera	.	.	.	17	.	16	37	.	.	.
Filago germanica	.	.	.	.	.	.	.	.	.	43
Char. *Papaveretea rhoeadis*										
Anagallis arvensis	37	70	100	100	72	77	100	100	50	57
Papaver rhoeas	62	65	8	83	88	199	100	100	60	86
Scandix pecten-veneris	62	35	58	100	92	100	100	100	90	28
Lolium rigidum	75	5	75	50	44	100	100	86	40	100
Sherardia arvensis	50	45	17	100	36	94	100	57	I	43
Catapodium rigidum	50	.	8	17	48	83	62	28	10	
Sinapis arvensis	25	45	92	.	72	61	37	100	80	.

TABLE. 1: Associations of *Papaveretea rhoeadis* from Sicily (continued)

Association Nr.	1	2a	2b	3	4	5	6	7	8	9
Relevés Nr.	8	20	12	6	25	18	8	7	10	7
Char. *Papaveretea rhoeadis (Continued)*										
Papaver hybridum	50	30	.	100	76	72	25	14	50	.
Avena barbata	87	75	83	.	96	94	100	100	40	.
Leopoldia comosa	12	5	92	33	52	100	75	100	.	.
Anthemis arvensis	62	.	17	.	4		62	.	10	28
Vicia sativa ssp. sativa	75	.	75	.	.	77	100	71	40	57
Chrysanthemum segetum	62	.	.	.	28	77	87	71	10	86
Phalaris canariensis ssp. canariensis	.	80	75	17	84	77	25	43	.	.
Ornithogalum pyramidale	.	25	.	.	56	33	50	28	IV	.
Rhaphanus raphanistrum	12	.	.	.	16	44	50	28	.	100
Calendula arvensis	12	.	.	.	12	38	.	28	20	.
Papaver dubium	.	.	.	17	.	11		28	40	.
Legousia falcata	62	15	.	.	76		25	.	.	.
Anagallis foemina	.	85	.	.	96			.	30	.
Vicia lutea	12	.	50	.	.	55	75	28	.	.
Phalaris canariensis ssp. brachystachys	.	85	17	.	80	.	.	.	100	.
Agrostemma githago	12	.	.	.	.	16	12	14	.	.
Gladiolus segetum	62	50	.	66	72	.	.	.	.	.
Orlaya kochii	.	.	58	.	.	38		28	.	.
Asperula arvensis	12	.	.	.	.			.	.	.
Avena sterilis ssp. sterilis	.	.	.	.	.	.	.	.	90	43
Vicia sativa ssp. macrocarpa	.	45	.	.	80	.	.	.	.	.
Transgr. *Stellarietea mediae*										
Sonchus oleraceus	37	75	83	66	44	44	37	14	90	.
Lathyrus aphaca	25	5	17	.	.	16	75	14	10	
Ammi majus	.	20	42	.	48	.	62	71	30	28
Chrysanthemum coronarium	.	.	8	66	12	44	.	71	.	43
Lamium amplexicaule	25	.	.	.	.	27	25	14	10	43
Hypericum triquetrifolium	.	10	17	.	.	94	12	86	.	.
Helminthoteca echioides	.	95	83	.	84	.	.	.	100	.
Bromus sterilis	62	5	.	.	.	27	25	.	.	.
Fumaria officinalis	.	.	.	.	.	88	50	71	.	.
Oxalis pes-caprae	.	30	.	83	.	.	.	43	.	.
Euphorbia helioscopia	.	.	.	33	.	50	.	.	.	.
Fumaria officinalis ssp. wirtgenii	.	.	.	66	.	.	.	.	.	28
Fumaria parviflora	37	.	.	83	.	.	.	.	.	.
Sonchus asper	.	20	.	.	48	.	.	.	.	.
Stellaria media	87	.	.	.	.	.	.	.	.	28
Chenopodium album	.	.	.	.	.	.	.	.	.	14
Euphorbia peplus	75	.	.	.	.	.	.	.	.	.
Fumaria agraria	.	.	.	50	.	.	.	.	.	.
Galinsoga parviflora	100	.	.	.	.	.	.	.	.	.
Borago officinalis	.	.	.	.	.	.	.	28	.	.
Transgr. *Stellarietea mediae*										
Sonchus oleraceus	37	75	83	66	44	44	37	14	90	.
Lathyrus aphaca	25	5	17	.	.	16	75	14	10	
Ammi majus	.	20	42	.	48	.	62	71	30	28
Chrysanthemum coronarium	.	.	8	66	12	44	.	71	.	43

TABLE 1: Associations of *Papaveretea rhoeadis* from Sicily (continued)

Association Nr.	1	2a	2b	3	4	5	6	7	8	9
Relevés Nr.	8	20	12	6	25	18	8	7	10	7
Transgr. *Stellarietea mediae* (Continued)										
Lamium amplexicaule	25	.	.	.	.	27	25	14	10	43
Hypericum triquetrifolium	.	10	17	.	.	94	12	86	.	.
Helminthoteca echioides	.	95	83	.	84	.	.	.	100	.
Bromus sterilis	62	5	.	.	.	27	25	.	.	.
Fumaria officinalis	.	.	.	.	.	88	50	71	.	.
Oxalis pes-caprae	.	30	.	83	.	.	.	43	.	.
Euphorbia helioscopia	.	.	.	33	.	50	.	.	.	.
Fumaria officinalis ssp. wirtgenii	.	.	.	66	.	.	.	.	.	28
Fumaria parviflora	37	.	.	83	.	.	.	.	.	.
Sonchus asper	.	20	.	.	48	.	.	.	.	.
Stellaria media	87	.	.	.	.	.	.	.	.	28
Chenopodium album	.	.	.	.	.	.	.	.	.	14
Euphorbia peplus	75	.	.	.	.	.	.	.	.	.
Fumaria agraria	.	.	.	50	.	.	.	.	.	.
Galinsoga parviflora	100	.	.	.	.	.	.	.	.	.
Borago officinalis	.	.	.	.	.	.	.	28	.	.
Transgr. *Thero-Brometalia*										
Medicago polymorpha	100	35	33	17	52	33	100	100	80	.
Galactites elegans	25	25	25	.	48	.	25	14	70	43
Hedypnois cretica	.	.	42	.	.	83	12	43	20	.
Daucus aureus	.	20	58	.	36	.	.	.	40	.
Sulla coronaria	.	30	.	.	44	.	.	.	20	28
Bromus madritensis	.	5	.	17	.	.	.	.	40	.
Lavatera trimestris	.	.	.	.	8	.	.	.	10	
Dasypyrum villosum	.	.	.	.	.	.	87	14	.	.
Hedypnois rhagadioloides	.	.	.	.	.	16	.	14	.	.
Hirschfeldia incana	62	.	.	33	.	.	.	.	.	.
Lophochloa cristata	37	.	.	.	.	.	.	.	.	.
Anacyclus clavatus	.	.	.	.	.	.	.	.	40	.
Urospermum picroides	37	.	.	.	.	.	.	.	.	.
Hordeum leporinum	37	.	.	.	.	.	.	.	.	.
Other species										
Torilis nodosa	50	70	42	66	84	88	50	14	70	.
Convolvulus arvensis	.	70	42	50	72	22	.	14	70	43
Euphorbia exigua	.	75	83	.	48	33	12	28	30	.
Eryngium campestre	.	.	.	.	20	50	12	71	20	.
Aetheorrhiza bulbosa	.	.	.	17	.	27	25	14	10	.
Notobasis syriaca	.	.	.	.	52	33	12	.	40	.
Kickxia spuria ssp. integrifolia	.	90	75	.	80	.	.	.	70	.
Trifolium campestre	62	.	.	.	.	16	12	.	30	.
Medicago tuberculata	.	.	17	.	.	27	.	71	20	.
Beta vulgaris (incl. ssp. maritima)	.	60	.	17	32	.	.	.	40	.
Bellardia trixago	.	40	25	.	.	55	.	14	.	.
Cichorium intybus	.	45	17	.	60	.	12	.	.	.
Rumex bucephalophorus	37	.	.	.	.	100	25	43	.	.
Thymelaea passerina	.	5	.	.	4			.	.	.

TABLE 1: Associations of *Papaveretea rhoeadis* from Sicily (continued)

Association Nr.	1	2a	2b	3	4	5	6	7	8	9
Relevés Nr.	8	20	12	6	25	18	8	7	10	7
Other species (Continued)										
Bellardia trixago	.	40	25	.	.	55	.	14	.	.
Cichorium intybus	.	45	17	.	60	.	12	.	.	.
Rumex bucephalophorus	37	.	.	.	.	100	25	43	.	.
Thymelaea passerina	.	5	.	.	4			.	.	.
Fedia graciliflora	.	.	.	.	8	22	.	43	.	.
Cerastium glomeratum	.	.	.	.	.	.	37	.	10	
Plantago afra	.	.	.	33	.	44	.	43	.	.
Ranunculus ficaria	.	.	.	.	16	16	.	14	.	.
Aegilops geniculata	.	.	.	.	.	38	12	.	30	.
Campanula erinus	.	60	.	.	.	72	.	14	.	.
Centaurea solstitialis ssp. schouwii	.	5	.	.	24	.	87	.	.	.
Scolymus grandiflorus	.	30	50	.	48	.	.	.	.	.
Ammi visnaga	.	35	92	.	48	.	.	.	.	.
Polygonum aviculare	.	.	.	.	.	.	.	.	50	43
Linaria reflexa	.	.	.	.	.	38	.	28	.	.
Silene nocturna	.	.	.	.	.	33	.	14	.	.
Reseda lutea	.	.	.	.	.	16	.	28	.	.
Picris hieracioides	.	.	.	.	.	.	25	28	.	.
Polycarpon tetraphyllum	37	.	.	.	.	.	12	.	.	.
Rumex pulcher	50	.	17	.	.	.	.	.	.	.
Medicago orbicularis	.	.	.	.	.	44	.	28	.	.
Medicago rugosa	.	.	.	.	.	27	.	28	.	.
Anemone coronaria	.	.	.	.	.	38	25	.	.	.
Carduus picnocephalus	.	25	.	.	36	.	.	.	.	.
Delphinium peregrinum	.	.	.	.	.	50	.	43	.	.
Silene gallica	12	.	.	.	.	.	100	.	.	.
Tordilium apulum	.	.	.	17	.	44	.	.	.	.
Sanguisorba minor	.	.	.	.	.	.	25	14	.	.
Lactuca viminea	.	20	.	.	8	.	.	.	.	.
Convolvulus althaeoides	.	.	.	66	.	.	.	.	.	.
Chamaemelum mixtum	.	.	.	.	.	.	.	.	.	28
Herniaria hirsuta	.	.	.	.	.	.	.	.	.	28
Arisarum vulgare	.	45	.	.	.	.	.	.	.	.
Arum italicum	.	30	.	.	.	.	.	.	.	.
Hypochoeris achyrophorus	.	.	.	.	.	50	.	.	.	.
Carduus corymbosus	.	.	.	.	.	44	.	.	.	.
Lythrum juceum	.	50	.	.	.	.	.	.	.	.
Juncus bufonius	.	30	.	.	.	.	.	.	.	.
Spergularia rubra	.	20	.	.	.	.	.	.	.	.
Ajuga chamaepitis	.	.	.	.	.	27	.	.	.	.
Chamaemelum fuscatum	.	20	.	.	.	.	.	.	.	.
Allium ampeloprasum	.	.	17	.	.	.	.	.	.	.
Tolpis virgata	.	.	.	.	.	.	.	.	.	28
Trachynia distachya	.	.	.	50	.	.	.	.	.	.
Trifolium arvense	.	.	.	.	.	.	.	.	.	28
Veronica cymbalaria	62	.	.	.	.	.	.	.	.	.
Ammoides pusilla	.	.	.	.	.	22	.	.	.	.
Ranunculus muricatus	50	.	.	.	.	.	.	.	.	.

TABLE 1: Associations of *Papaveretea rhoeadis* from Sicily (continued)

Association Nr.	1	2a	2b	3	4	5	6	7	8	9
Relevés Nr.	8	20	12	6	25	18	8	7	10	7
Tetragonolobus purpureus	.	.	.	.	.	.	.	.	20	.
Salvia verbenaca	.	.	.	50	.	.	.	.	.	.
Medicago turbinata	.	.	.	.	.	.	62	.	.	.
Ornithopus compressus	.	.	.	.	.	.	.	.	.	28
Geranium rotundifolium	62	.	.	.	.	.	.	.	.	.
Centaurea calcitrapa	.	.	.	.	.	.	.	.	20	.
Aristolochia longa	.	.	.	.	.	27	.	.	.	.
Beta macrocarpa	.	.	58	.	.	.	.	.	.	.
Lathyrus clymenum	.	.	.	.	.	.	.	.	.	28
Brassica nigra	.	.	.	.	24	.	.	.	.	.
Capsella rubella	100	.	.	.	.	.	.	.	.	.
Carduus argyroa	.	.	.	66	.	.	.	.	.	.
Centaurium tenuifolium	.	.	42	.	.	.	.	.	.	.
Centaurea napifolia	.	.	25	.	.	.	.	.	.	.
Diplotaxis scaposa	.	.	.	50	.	.	.	.	.	.
Galium parisiense	.	.	.	.	.	.	37	.	.	.
Lactuca saligna	.	.	.	.	48	.	.	.	.	.
Lactuca virosa	.	.	.	.	40	.	.	.	.	.
Lythrum hyssopifolia	.	.	67	.	.	.	.	.	.	.
Parapholis incurva	.	.	25	.	.	.	.	.	.	.
Poa sylvicola	100	.	.	.	.	.	.	.	.	.
Silene colorata	.	.	.	.	.	27	.	.	.	.
Trifolium glomeratum	.	.	.	.	.	.	25	.	.	.
Trigonella foenum-graecum	.	.	.	.	28	.	.	.	.	.
Vicia benghalensis	.	.	.	.	.	.	37	.	.	.
Vulpia ligustica	37	.	.	.	.	.	.	.	.	.
Geranium dissectum	.	.	.	.	.	.	37	.	.	.
Phlaris minor	25	.	.	.	.	.	.	.	.	.
Reseda alba	.	.	.	33	.	.	.	.	.	.
Vicia villosa ssp. ambigua	.	.	.	.	.	.	.	.	.	71

1 - Legousio-Brizetum minoris, after Bartolo et al. (1988); Tab. 1.

2a - Capnophyllo peregrini-Medicaginetum ciliaris, after Di Martino & Raimondo (1976); tab. 2.

2b - Capnophyllo peregrini-Medicaginetum ciliaris after Bartolo et al., (1983); Tab. 4.

3 - Calendulo-Hypecoetum procumbentis, after Bartolo et al. (1988); Tab. 27.

4 - Legousio hybridae-Biforetum testiculatae, after Di Martino & Raimondo (1976); Tab.1.

5 - Adonido cupanianae-Anthemidetum incrassatae, after Bartolo et al. (1983); Tab. 1.

6 - Vicio bithynicae-Ranunculetum arvensis, after Bartolo et al. (1983); Tab. 2.

7 - Rapistro rugosi-Melilotetum infestae, after Bartolo et al. (1983); Tab. 3.

8 - Valerianello dentatae-Medicaginetum scutellatae, after Ferro (1988); Tab. 1.

9 - Lolio rigidi-Rapahnetum raphanistri, after Ferro (2004); Tab.1.

TABLE 2: Associations of *Polygono-Chenopodietalia polispermi* from Sicily

Association Nr.	1	2	3	4	5	6	7a	7b	8	9	10
Relevés Nr.	11	10	8	12	6	6	6	10	8	10	5
Char. Association											
Diplotaxis viminea	100	.	.	.	.	.	.	.	.	.	.
Fumaria densiflora	36	100	.	17	.	33	.	.	.	.	.
Veronica hederifolia	18	100	50	.	.	.	.	.	.	.	.
Geranim tuberosum	.	.	100	.	.	.	.	.	.	.	.
Lobularia libyca	.	.	.	100	.	.	.	.	.	.	.
Eruca sativa	.	.	.	.	100	.	.	.	.	.	.
Torilis nodosa	.	.	.	.	.	100	.	.	.	.	.
Ammi majus	18	.	37	.	.	100	.	.	.	.	.
Spergula arvensis	.	.	.	.	.	.	100	80	.	.	.
Herniaria hirsuta	.	.	.	.	.	.	83	10	.	.	.
Anthemis arvesis ssp. incrassata	.	.	.	.	.	.	.	.	100	.	.
Lotus subbiflorus	.	.	.	.	.	.	.	.	87	.	.
Medicago tornata	.	.	.	.	.	.	.	.	87	.	.
Fumaria bastardi	.	.	.	.	.	.	.	.	.	100	.
Reseda lutea	27	.	.	.	.	.	.	.	.	.	100
Char. Fumarion wirtigenii-agrariae											
Fumaria officinalis ssp. wirtgenii	72	100	100	75	83	100	100	60	100	90	80
Fumaria parviflora	63	90	100	75	33	67	100	50	62	100	100
Fumaria agraria	72	70	62	67	67	100	100	60	.	90	60
Rumex bucephalophorus	100	30	100	100	100	83	67	.	100	.	.
Linaria reflexa	45	40	37	.	.	33	.	.	75	.	.
Veronica cymbalaria	72	90	87	.	.	67	.	.	62	.	.
Fumaria gaillardotii	100	.	.	92	.	100	.	.	.	70	.
Fumaria flabellata	.	.	.	.	.	.	.	40	.	.	.
Char. Polygono-Chenopodietalia											
Sonchus asper	81	40	62	75	33	83	50	.	37	70	40
Lamium amplexicaule	81	70	75	83	50	83	.	40	50	20	.
Euphorbia helioscopia	27	30	.	25	83	67	67	.	62	80	100
Calendula arvensis	100	90	75	67	100	100	83	.	87	.	.
Euphorbia peplus	72	40	62	.	.	83	.	.	37	40	.
Erodium cicutarium	.	.	37	.	.	.	.	.	62	.	.
Char. Stellarietea mediae											
Stellaria media	45	40	50	67	67	50	100	70	62	70	.
Oxalis pes-caprae	100	60	75	83	83	83	67	.	87	100	100
Sonchus oleraceus	100	100	100	100	83	100	.	50	87	80	100
Mercurialis annua	72	20	75	.	50	83	50	.	37	50	20
Senecio vulgaris	81	90	75	25	.	83	100	70	75	40	.
Emex spinosa	91	40	50	.	83	.	.	.	37	80	80
Erodium malacoides	100	.	75	33	83	.	.	.	62	80	100

TABLE 2: Associations of *Polygono-Chenopodietalia polispermi* from Sicily (continued)

Association Nr.	1	2	3	4	5	6	7a	7b	8	9	10
Relevés Nr.	11	10	8	12	6	6	6	10	8	10	5
Borago officinalis	72	60	50	42	.	50	.	.	.	.	20
Chrysanthemum segetum	72	60	.	.	.	83	100	70	37	.	.
Diplotaxis erucoides	100	60	100	100	.	.	.	.	.	10	40
Raphanus raphanistrum	18	90	.	83	100	50	.	40	.	.	.
Chenopodium album	.	30	37	.	.	.	50	40	50	.	.
Malva sylvestris	.	20	50	.	33	33	.	.	37	.	.
Solanum nigrum	.	30	37	.	33	.	50	40	.	.	.
Geranium molle	.	.	.	50	.	50	17	.	75	.	.
Brassica fruticulosa	.	.	.	.	.	.	83	60	62	.	.
Chenopodium murale	.	.	.	8	.	.	.	.	.	50	.
Conyza canadensis	.	.	.	42	.	.	.	10	.	.	.
Cyperus rotundus	.	.	.	.	.	.	17	30	.	.	.
Galim aparine	.	30	.	.	.	33	.	.	.	.	.
Hypericum triquetrifolium	81	.	75	.	.	.	.	.	.	.	.
Capsella bursa-pastoris	.	.	.	.	.	.	.	40	.	.	.
Cerinthe major	54	.	.	.	.	.	.	.	.	.	.
Conyza albida	.	.	.	.	.	.	.	40	.	.	.
Stellaria pallida	.	.	.	.	.	.	.	.	.	.	60
Tribulus terrestris	.	.	.	.	.	.	.	30	.	.	.
Urtica urens	.	.	.	.	.	.	.	.	.	20	.
Heliotropium dolosum	.	.	.	.	.	.	.	20	.	.	.
Transgr. Thero-Brometalia											
Bromus sterilis	72	50	100	100	100	50	.	60	37	90	100
Medicago polymorpha	36	70	62	58	50	83	17	.	50	40	.
Chrysanthemum coronarium	.	80	75	75	67	100	.	40	.	80	40
Bromus madritensis	91	.	62	75	67	67	100	.	62	20	.
Avena barbata	.	70	50	17	100	83	.	50	.	10	.
Fedia graciliflora	54	.	50	.	.	67	.	.	25	.	.
Sinapis alba	45	30	.	33	.	.	.	.	.	.	.
Hirschfeldia incana	.	20	.	.	100	.	.	.	.	.	.
Echium plantagineum	.	.	.	.	.	.	.	10	.	.	.
Lophochloa cristata	.	.	.	.	.	.	.	30	.	.	.
Malva parviflora	.	.	.	.	.	.	.	.	.	.	60
Malva nicaeenis	.	.	.	.	.	.	.	.	.	80	.
Echium plantagineum	.	.	.	.	.	.	.	.	50	.	.

TABLE 2: Associations of *Polygono-Chenopodietalia polispermi* from Sicily (continued)

Association Nr.	1	2	3	4	5	6	7a	7b	8	9	10
Relevés Nr.	11	10	8	12	6	6	6	10	8	10	5
Trasgr. Papaveretea rhoeadis & Papaveretalia rhoeadis											
Papaver hybridum	100	80	50	75	50	100	.	.	50	80	20
Anagallis arvensis	72	100	87	33	.	83	83	20	.	100	.
Papaver rhoeas	.	100	87	92	83	50	.	.	.	10	.
Vicia sativa	.	60	50	50	50	33	50	.	.	.	.
Melilotus sulcatus	45	50	.	58	.	.	.	.	.	100	.
Leopoldia comosa	.	.	75	.	100	.	17	.	.	.	.
Lolium rigidum	.	70	.	.	.	.	.	.	12	90	.
Catapodium rigidum	45	.	.	.	.	33	.	.	.	.	.
Misopates orontium	54	40	.	.	.	.	.	.	.	.	.
Galim tricornutum	.	60	.	.	.	.	.	.	.	.	.
Galium verrucosum	.	.	.	.	.	.	.	.	.	60	.
Gladiolus italicus	.	40	.	.	.	.	.	.	.	.	.
Cerastium glomeratum	.	.	.	.	.	.	67	.	.	.	.
Papaver dubium	.	.	.	.	.	.	67	.	.	.	.
Papaver setigerum	.	.	.	.	.	.	83	.	.	.	.
Phalaris brachystachys	.	40	.	.	.	.	.	.	.	.	.
Scandix pecten-veneris	.	50	.	.	.	.	.	.	.	.	.
Sherardia arvensis	.	.	.	.	.	.	67	.	.	.	.
Melilotus infesta	.	.	.	.	.	67	.	.	.	.	.
Other species											
Convolvulus arvensis	100	40	87	83	67	50	.	.	62	100	100
Reseda alba	45	.	.	67	33	17	.	.	.	10	60
Andryala integrifolia	.	.	.	58	.	.	33	70	62	.	.
Poa annua	36	30	.	.	.	.	.	20	.	20	.
Silene gallica	.	.	.	.	33	.	67	70	62	.	.
Chondrilla juncea	.	10	.	.	.	.	50	10	.	.	.
Urospermum picroides	91	.	.	33	.	.	.	.	25	.	.

1 - Diplotaxietum viminio-erucoidis, after Brullo & Marcenò (1985), Tab. 2.
2 - Fumario densiflorae-Veronicetum hederifoliae, after Brullo & Marcenò (1985), Tab. 3.
3 - Fumario parviflorae-Geranietum tuberosi, after Brullo & Marcenò (1985), Tab. 4.
4 - Sileno-Lobularietum libycae, after Brullo & Marcenò (1985), Tab. 5.
5 - Raphano-Erucetum sativae, after Brullo & Marcenò (1985), Tab. 6.
6 - Ammio-Torilidetum nodosae, after Brullo & Marcenò (1985), Tab. 7.
7a - Herniario-Sperguletum arvensis, after Brullo & Marcenò (1985), Tab. 8.
7b - Herniario-Sperguletum arvensis, after Ferro (2004), Tab. 2, rel. 1-10.
8 - Loto-Anthemidetum incrassatae, after Brullo & Marcenò (1985), Tab. 9.
9 - Fumarietum parviflorae-bastardii, after Bartolo et al. (1988), Tab. 43.
10 - Fumario parviflorae-Resedetum luteae, after Bartolo et al. (1988), Tab. 44.

TABLE 3: Associations of *Solano-Polygonetalia convolvuli* and *Fedio-Convolvulion cupaniani* from Sicily

Association Nr.	1	2	3a	3b	4a	4b	4c	5	6	7a	7b	8a	8b	9
Relevés Nr.	11	19	8	8	46	4	11	6	5	30	9	24	10	23
Char. Association														
Heliotropium dolosum	100	.	.	.	.	.	.	.	100	.	.	.	.	.
Silene behen	18	.	.	.	.	.	.	.	.	.	.	.	.	.
Heliotropium bocconei	.	100	.	.	.	.	.	.	.	.	.	.	.	.
Conyza albida	.	.	62	25	.	.	.	.	.	.	.	.	.	.
Chenopodium ficifolium	.	.	12	.	.	.	.	.	.	.	.	.	.	.
Kickxia spuria ssp. integrifolia	.	.	.	.	91	100	72	.	.	.	.	.	.	.
Andrachne telephioides	.	.	.	.	41	.	.	.	.	.	.	.	.	.
Echinophora tenuifolia	.	.	.	.	3	.	.	.	.	.	.	.	.	.
Teucrium spinosum	.	.	.	.	.	100	.	.	.	.	.	.	.	.
Eragrostis barrelieri	.	.	.	.	.	.	.	100	.	3	.	.	.	.
Amaranthus lividus	.	.	.	.	.	.	.	100	.	.	.	.	.	.
Cyperus aureus	.	.	.	.	.	.	.	.	.	30	55	.	.	.
Echinochloa colonum	.	.	.	.	.	.	.	.	.	.	.	90	100	.
Silene fuscata	.	.	.	.	.	.	54	.	.	.	.	.	.	100
Allium dentiferum	.	.	.	.	.	.	.	.	.	.	.	.	.	96
Chamaemelum fuscatum	.	.	.	.	.	.	.	.	.	.	.	.	.	78
Allium trifoliatum	.	.	.	.	.	.	.	.	.	.	.	.	.	35
Allium pallens	.	.	.	.	.	.	.	.	.	.	.	.	.	22
Char. Chenopodion botryos														
Brassica fruticulosa	100	89	75	87	.	.	.	.	.	10	44	.	.	.
Chenopodium botrys	.	63	.	.	.	.	.	.	.	.	.	.	.	.
Char. Diplotaxion erucoidis	.	.												
Chrozophora tinctoria	.	.	.	.	91	.	100	.	80	.	.	.	.	.
Hypericum triquetrifolium	.	.	.	.	72	.	36	83	.	.	.	.	.	.
Helminthotheca echioides	.	.	.	.	52	100	27	.	.	.	.	30	.	96
Ammi visnaga	.	.	.	.	11	75	18	.	.	.	.	.	.	.
Char. Digitario hischaemi-Setarion viridis														
Setaria viridis	.	.	.	.	.	.	.	.	.	13	77	10	100	.
Echinochloa crus-galli	.	.	.	.	.	.	.	.	.	.	67	.	70	.
Galinsoga parviflora	.	.	.	.	.	.	.	.	.	93	78	.	30	.

TABLE 3: Associations of *Solano-Polygonetalia convolvuli* and *Fedio-Convolvulion cupaniani* from Sicily (continued)

Association Nr.	1	2	3a	3b	4a	4b	4c	5	6	7a	7b	8a	8b	9
Relevés Nr.	11	19	8	8	46	4	11	6	5	30	9	24	10	23
Char. Fedio-Convolvulion cupaniani														
Brassica sylvestris	.	.	.	.	.	.	.	.	.	.	.	.	.	74
Cerinthe major	.	.	.	.	.	.	.	.	.	.	.	.	.	70
Convolvulus cupanianus	.	.	.	.	.	.	.	.	.	.	.	.	.	78
Fedia graciliflora	.	.	.	12	.	.	.	.	.	.	.	.	.	100
Geranium dissectum	.	.	.	.	.	.	.	.	.	.	.	.	.	56
Medicago intertexta	.	.	.	.	.	.	.	.	.	.	.	.	.	56
Melilotus infesta	.	.	.	.	.	.	.	.	.	.	.	.	.	48
Ranunculus ficaria	.	.	.	.	.	.	.	.	.	.	.	.	.	78
Scorpiurus vermiculatus	.	.	.	.	.	.	.	.	.	.	.	.	.	38
Senecio vernus	.	.	.	.	.	.	.	.	.	.	.	.	.	56
Vicia sicula	.	.	.	.	.	.	.	.	.	.	.	.	.	13
Char. Solano-Polygonietalia convolvuli														
Amaranthus grecizans	18	26	50	62	19	.	45	100	60	76	78	90	90	.
Portulaca oleracea	45	74	62	25	15	.	9	67	80	47	78	90	100	.
Heliotropium europaeum	81	31	12	.	89	.	54	83	100	7	55	10	90	.
Setaria verticillata	.	42	87	100	13	.	.	67	80	73	89	90	100	.
Amaranthus retroflexus	.	42	75	.	12	.	9	100	.	13	55	70	60	.
Chenopodium opulifolium	27	.	.	12	26	.	.	50	60	47	67	30	80	.
Cyperus rotundus	.	.	75	75	.	.	.	50	.	93	100	50	100	.
Digitaria sanguinalis	.	8	62	.	.	.	.	.	40	40	67	10	80	.
Trilobus terrestris	27	47	25	12	.	.	.	50	.	20	.	10	.	.
Amaranthus albus	.	16	.	.	24	.	9	67	.	.	.	10	.	.
Sorghum halepensis	.	8	.	.	6	.	.	.	.	20	.	10	40	.
Eragrostis cilianensis	.	.	37	37	4	.	.	.	.	.	.	.	60	.
Euphorbia chamaesyce ssp. chamaesyce	.	42	.	.	33	.	91	.	.	.	.	.	.	.
Setaria decipiens	.	.	.	.	.	.	.	.	.	86	100	.	60	.
Amaranthus blitoides	.	.	.	.	13	.	.	.	.	.	.	.	80	.
Setaria glauca	.	21	.	.	.	.	.	.	.	.	.	10	.	.
Solanum luteum	.	.	.	.	.	.	.	.	.	.	.	.	50	.
Char. Thero-Brometalia														
Galactites elegans	.	.	12	25	2	.	.	.	.	.	.	.	.	100
Medicago polymorpha	.	.	.	.	6	.	36	.	.	.	.	.	20	78
Astragalus hamosus	.	.	.	.	.	.	.	.	.	.	.	.	10	4

TABLE 3: Associations of *Solano-Polygonetalia convolvuli* and *Fedio-Convolvulion cupaniani* from Sicily (continued)

Association Nr.	1	2	3a	3b	4a	4b	4c	5	6	7a	7b	8a	8b	9
Relevés Nr.	11	19	8	8	46	4	11	6	5	30	9	24	10	23
Char. Thero-Brometalia (continued)														
Avena sterilis	.	.	.	.	.	.	54	.	.	.	.	.	.	17
Bromus madritensis	.	.	12	.	.	.	.	.	.	.	.	.	.	56
Bromus sterilis	.	.	.	.	.	.	.	.	40	.	.	.	.	65
Lolium rigidum	.	.	.	.	.	.	.	.	.	10	.	.	.	17
Avena barbata	.	.	.	.	.	.	.	.	.	.	.	.	.	56
Bromus hordeaceus	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Catapodium rigidum	.	.	.	.	.	.	.	.	.	.	.	.	.	13
Echium plantagineum	.	21	.	.	.	.	.	.	.	.	.	.	.	30
Hedypnois cretica	.	.	.	.	.	.	.	.	.	.	.	.	.	17
Hedysarum coronarium	.	.	.	.	.	.	.	.	.	.	.	.	.	56
Hirschfeldia incana	.	.	.	.	.	.	.	.	.	.	.	.	.	30
Lotus ornithopodioides	.	.	.	.	.	.	.	.	.	.	.	.	.	30
Medicago orbicularis	.	.	.	.	.	.	.	.	.	.	.	.	.	26
Medicago tribuloides	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Vicia villosa	.	.	.	.	.	.	.	.	.	.	.	.	.	13
Char. Stellarietea mediae														
Solanum nigrum	45	21	87	87	24	.	9	33	40	77	89	70	.	13
Sonchus oleraceus	63	31	12	75	50	.	45	.	100	27	55	70	70	96
Chenopodium album	63	89	37	37	43	.	.	50	20	17	78	.	90	4
Chenopodium murale	54	5	100	25	8	.	27	.	100	27	55	30	.	.
Chrysanthemum coronarium	100	.	12	12	2	.	18	33	40	.	.	30	60	.
Conyza bonariensis	27	16	50	.	28	75	.	50	.	3	22	10	.	.
Conyza canadensis	.	36	25	12	6	50	.	.	.	7	22	.	60	.
Chenopodium vulvaria	.	47	.	.	26	.	81	50	80	.	.	10	50	.
Diplotaxis erucoides	.	.	.	.	41	.	54	100	.	.	.	90	40	70
Malva sylvestris	9	.	.	.	4	75	.	50	.	.	.	.	50	26
Senecio vulgaris	.	8	.	75	6	.	.	83	.	3	.	.	.	60
Amaranthus deflexus	.	8	.	.	4	.	.	.	.	63	55	10	.	.
Calendula arvensis	.	.	.	75	.	.	9	.	.	.	22	30	.	56
Euphorbia heliscopia	.	.	.	37	.	.	.	.	.	,	,	10	.	43
Lamium amplexicaule	18	.	.	37	2	.	18	.	.	.	.	.	.	35
Sonchus asper	.	.	.	.	17	25	.	.	20	.	.	10	.	78
Capsella bursa-pastoris	.	8	12	37	.	.	.	.	.	10	.	.	.	.
Mercurialis annua	.	.	.	I	.	.	.	.	.	43	.	10	.	9

TABLE 3: Associations of *Solano-Polygonetalia convolvuli* and *Fedio-Convolvulion cupaniani* from Sicily (continued)

Association Nr.	1	2	3a	3b	4a	4b	4c	5	6	7a	7b	8a	8b	9
Relevés Nr.	11	19	8	8	46	4	11	6	5	30	9	24	10	23
Char. Stellarietea mediae (continued)														
Oxalis pes-caprae	.	.	.	100	.	.	18	.	.	7	.	.	.	100
Ecballium elaterium	.	.	.	.	39	.	72	.	60	.	.	.	.	.
Erodium cicutarium	18	.	.	.	.	.	.	.	40	.	67	.	.	.
Erodium malacoides	.	.	.	.	.	.		.	20	.	.	.	.	22
Raphanus raphanistrum	.	.	12	12	.	.	.	.	.	.	.	.	.	13
Stellaria media	.	.	.	87	.	.	.	.	.	7	.	.	.	60
Urtica membranacea	.	.	.	12	.	.	.	.	.	50	78	.	.	.
Amaranthus lividus	.	31	.	.	2	.	.	.	.	.	.	.	.	.
Amaranthus viridis	.	.	.	25	.	.	.	.	20	.	.	.	.	.
Ammi majus	.	.	.	.	.	.	27	.	.	.	.	.	.	4
Aster squamatus	.	.	.	.	11	25	.	.	.	.	.	.	.	.
Malva nicaeensis	27	8	.	.	.	.	.	.	.	.	.	.	.	.
Malva parviflora	.	.	.	.	.	.	.	.	40	2	.	.	.	.
Euphorbia peplus	.	.	.	.	19	.	.	.	.	13	.	.	.	.
Fumaria capreolata	.	.	.	.	.	.	.	.	.	13	11	.	.	.
Fumaria officinalis ssp. officinalis	.	.	.	.	.	.	9	.	.	.	.	.	.	22
Fumaria parviflora	81	.	.	.	.	.	.	.	80	.	.	.	.	.
Emex spinosa	36	.	.	.	.	.	.	.	40	.	.	.	.	.
Fumaria densiflora	.	.	.	.	.	.	.	.	40	.	.	.	.	4
Lavatera cretica	.	.	.	.	.	.	.	.	20	.	.	.	.	9
Sinapis arvensis var. orientalis	.	.	.	.	.	.	45	.	.	.	.	.	.	4
Urtica urens	.	.	.	.	.	.	.	.	.	23	44	.	.	.
Ammi visnaga	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Agrostis stolonifera	.	.	.	.	.	.	.	.	.	.	.	.	60	.
Borago officinalis	.	.	.	.	.	.	.	.	.	.	.	.	.	39
Bromus rigidus	.	.	.	.	.	.	.	.	.	10	.	.	.	.
Calendula tripterocarpa	.	.	.	.	.	.	.	.	20	.	.	.	.	.
Chenopodium ambrosioides	.	.	.	.	2	.	.	.	.	.	.	.	.	.
Chrysanthemum segetum	.	.	.	.	.	.	.	.	.	3	.	.	.	.
Centaurea melitensis	.	.	.	.	.	.	.	.	40	.	.	.	.	.
Conyza floribunda	.	16	.	.	.	.	.	.	.	.	.	.	.	.
Diplotaxis viminea	.	.	.	.	2	.	.	.	.	.	.	.	.	.
Erodium ciconium	.	47	.	.	.	.	.	.	.	.	.	.	.	.
Euphorbia nutans	.	.	.	.	.	.	.	.	.	.	.	.	50	.

TABLE 3: Associations of *Solano-Polygonetalia convolvuli* and *Fedio-Convolvulion cupaniani* from Sicily (continued)

Association Nr.	1	2	3a	3b	4a	4b	4c	5	6	7a	7b	8a	8b	9
Relevés Nr.	11	19	8	8	46	4	11	6	5	30	9	24	10	23
Char. Stellarietea mediae (continued)														
Fumaria officinalis ssp. wirtgenii	.	.	.	.	.	.	.	.	.	10	.	.	.	.
Geranim molle	.	.	.	.	.	.	.	.	.	.	.	.	.	4
Stellaria neglecta	.	.	.	.	.	.	.	.	.	3	.	.	.	.
Xanthium spinosum	.	.	.	.	8	.	.	.	.	.	.	.	.	.
Transgr. Papaveretea rhoeadis & Papaveretalia rhoeadis														
Anagallis arvensis	81	.	.	.	15	100	91	67	.	.	.	.	.	60
Misopates orontium	45	.	37	25	8	.	.	.	.	.	.	.	.	.
Papaver rhoeas	9	.	.	12	.	.	36	.	.	.	.	.	.	30
Vicia sativa s.l.	36	.	.	.	.	.	9	.	.	7	.	.	.	39
Melilotus sulcatus	45	.	.	.	.	.	72	.	.	.	.	.	.	43
Fallopia convolvulus	.	53	37	25	.	.	.	.	.	.	.	.	.	.
Papaver hybridum	72	.	.	.	.	.	9	.	.	.	.	.	.	30
Other species														
Convolvulus arvensis	27	26	.	.	61	75	91	83	100	17	66	70	40	26
Cynodon dactylon	27	21	62	62	65	25		50	.	37	55	.	60	9
Lobularia maritima	54	16	.	25	.	.		33	.	.	33	.	30	.
Datura stramonium	.	.	37	37	.	.	.	.	.	27	11	10	30	.
Chondrilla juncea	.	74	37	.	.	.		67	.	.	33	.	.	.
Capsella rubella	.	.	.	.	.	.	.	50	40	.	44	.	.	4
Lactuca serriola	.	.	.	.	8	.	18	50	.	.	.	.	.	4
Rumex pulcher	.	5	.	.	.	.	.	.	.	20	44	10	.	.
Andryala integrifolia	100	31	37	.	.	.	.	.	.	.	.	.	.	.
Polygonum aviculare	.	.	.	.	21	.	81	.	.	.	.	.	50	.

1 - Heliotropietum dolosi, after Brullo & Marcenò (1980); Tab. 3.
2 - Heliotropietum bocconei, after Brullo & Marcenò (1980); Tab. 2.
3a - Amarantho graecizantis-Setarietum verticillatae, after Ferro (2004); Tab.3, rel. 1-8.
3b - Amarantho graecizantis-Setarietum verticillatae oxalidetosum pedis-caprae, after Ferro (2004); Tab.3 rel 9-16.
4a - Chrozophoro-Kichxietum integrifoliae typicum, after Brullo & Marcenò (1980); Tab. 1, rel. 1-46.
4b - Chrozophoro-Kichxietum integrifoliae teucrietosum spinosi, after Brullo & Marcenò (1980); Tab. 1, rel. 47-50.
4c - Chrozophoro-Kichxietum integrifoliae, after Ferro (1980); Tab. 12.
5 - Amarantho lividi-Eragrostietum barrelieri, after Brullo & Marcenò (1985); Tab. 10.
6 - Chrozophoro-Heliotropietum dolosi, after Bartolo et al. (1988), Tab. 42.
7a - Setario ambiguae-Cyperetum rotundi, after Maugeri (1980); Tab. 2.
7b - Setario ambiguae-Cyperetum rotundi, after Brullo & Marcenò (1985); Tab. 11.
8a - Setario glaucae-Echinochloetum colonum, after Maugeri et al. (1980), Tab. 1.
8b - Setario glaucae-Echinochloetum colonum, after Brullo & Marcenò (1985), Tab

TABLE 4: Associations of *Veronico-Urticion urentis* from Sicily

Association Nr.	1a	1b	2
Relevés Nr.	23	34	8
Char. Association			
Stellaria neglecta	100	85	.
Brassica rapa ssp. sylvestris	.	.	100
Bromus sterilis	70	.	100
Char. Veronico-Urticion urentis			
Urtica urens	82	41	88
Veronica persica	48	15	63
Char. Urtico-Scrophularietalia peregrinae			
Arum italicum	65	9	88
Fumaria capreolata	100	65	50
Galium aparine	92	29	63
Parietaria judaica	78	65	63
Scrophularia peregrina	65	41	50
Urtica membranacea	100	88	75
Arisarum vulgare	35	24	.
Char. Stellarietea mediae			
Borago officinalis	30	9	88
Chenopodium album	26	3	50
Euphorbia peplus	9	44	25
Fumaria officinalis ssp. wirtgenii	26	35	25
Mercurialis annua	74	62	75
Oxalis pes-caprae	92	79	100
Solanum nigrum	43	62	38
Sonchus oleraceus	78	56	88
Stellaria media	30	35	63
Chenopodium murale	26	.	13
Chrysanthemum segetum	.	21	38
Conyza bonariansis	13	6	.
Erodium malacoides	26	.	63
Euphorbia helioscopia	.	18	38
Galinsoga parviflora	48	68	.
Lamium amplexicaule	17	29	.
Malva parviflora	4	9	.
Senecio vulgaris	.	15	88
Brassica fruticulosa	.	9	.
Capsella bursa-pastoris	.	32	.
Cerinthe major	9	.	.

TABLE 4: Associations of V*eronico-Urticion urentis* from Sicily (continued)

Association Nr.	1a	1b	2
Relevés Nr.	23	34	8
Char. Stellarietea mediae (continued)			
Cyperus rotundus	.	9	.
Geranium molle	4	.	.
Malva sylvestris	35	.	.
Raphanus raphanistrum	22	.	.
Sonchus asper	56	.	.
Transgr. Thero-Brometalia			
Hordeum leporinum	65	35	38
Avena barbata	78	21	75
Medicago polymorpha	30	24	50
Malva nicaensis	48	.	50
Sisymbrium officinale	22	15	.
Transgr. Papaveretea rhoeadis & Papaveretalia rhoeadis			
Vicia sativa	17	12	25
Arabidopsis thaliana	4	9	.
Melilotus sulcatus	13	6	.
Anagallis arvensis	.	15	25
Calendula arvensis	.	18	25
Lolium rigidum	43	35	.
Papaver rhoeas	17	15	.
Other species			
Geranium rotundifolium	13	26	13
Poa annua	22	65	25
Cardamine hirsuta	9	6	.
Convolvulus arvensis	35	29	.
Medicago arabica	.	26	13
Medicago orbicularis	22	6	.
Ranunculus muricatus	22	47	.
Rumex pulcher	43	35	.
Vicia villosa	22	15	.

1a - Fumario-Stellarietum neglectae, after Brullo & Marcenò (1985); Tab. 17.
1b - Fumario-Stellarietum neglectae, after Maugeri (1980); Tab. 1.
2 - Bromo-Brassicetum sylvestris, after Brullo & Marcenò (1985); Tab. 18.