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GEOBOTANICAL RESEARCH ON MOUNT PISANO  
(TUSCANY, ITALY), VIII.  
A PRELIMINARY CHECKLIST OF THE VASCULAR FLORA.

**Riassunto** — *Studi geobotanici sul Monte Pisano (Toscana, Italia), VIII. Lista preliminare della flora vascolare.* — Viene presentato un elenco delle piante vascolari appartenenti alla Flora del M. Pisano. Tale elenco è basato su ampie indagini di campagna e sulla catalogazione e revisione di tutti i dati bibliografici disponibili. Attualmente la flora del Monte Pisano è costituita da 874 entità accertate. Altre 340 riportate in passato dai vari autori, non sono state per ora ritrovate. 42 taxa erroneamente indicati, sono definitivamente da escludersi per la zona.

**Abstract** — An inventory of the vascular flora of Mount Pisano based on published information and on extensive recent field work is given. Data from widely scattered and mostly very old sources have been brought together, and mostly verified in the field by the Authors. At present the Mount Pisano flora results to be represented by 874 entities. Other 340 specific or infraspecific taxa were previously listed for Mount Pisano in past years but not collected or verified by the present Authors in recent times. 42 taxa wrongly mentioned or misinterpreted have to be definitively rejected for the area. Further investigations are in progress.

**Key words** — Mount Pisano (Tuscany) - Flora.

## INTRODUCTION

Mount Pisano arises lonely between Serchio and Arno valleys, separating the plain of Lucca from that of Pisa; although it appears like a hill system — the top does not attain 1000 m — it shares the characters of a mountain massif.

M. Pisano extends for 15.000 ha ca. (BENVENUTI, 1975) and is limited of North-West by part of the lower course of the Serchio river, on

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West and South-West by the alluvial plain of the lower Arno (formerly the Asciano marsh): on North and North-East by the plains originated by land reclamations of Bientina lake and Massa Macinaia marsh.

The main ridge is NW-SE oriented and its summit demarcates the border between Lucca and Pisa provinces. Along this main ridge the highest tops are disposed, i.e. Spuntone di S. Allago (m 870), M. Faeta (m. 820), M. Verruchino (m 766). Other lower heights are either in Pisa (M. Cascetto, M. Cimone, M. Verruca, M. Maggiore) or in Lucca territories (M. Moriglion di Penna, M. Romagna, M. Cupola, M. del Carrara, M. Zano, M. S. Giuliano, M. Cotrozzi).

The only table-lands i.e. those of S. Allago and Pianbello don't reach relevant altitude.

Large valleys engrave the orographic structure on both slopes: the largest are those of Guappero brook (catchment basin 16,40 Km<sup>2</sup>), of Vorno brook (10,63 Km<sup>2</sup>), of Visona di Compito brook (10,18 Km<sup>2</sup>) on the Lucca slopes; and those of Calci brook (16,40 Km<sup>2</sup>) and of Magno brook (11,00 Km<sup>2</sup>) on the Pisa side (BENVENUTI, 1975).

The Guappero valley is very important because it is placed at lower altitude than others and deeply penetrates into the massif, where the ridge does not reach 200 m of altitude. Thus it separates, on its left, an orographic complex, mainly composed by calcareous rocks, from another one, on its right, very extended and mostly constituted by siliceous soils (Verrucano). Moreover, the Guappero valley is characterized, interestingly enough, by a progressive increase of its area descending by height, thus neatly differing from other valleys that are not so wide and roughly flow into the plain.

All the above cited surface-waters are collected by a net of channels, that link to Serchio and Arno rivers and provides to drain the reclaimed lands in the surrounding plains.

#### *An account of climate*

In order to give some information on the climate climograms were done using data collected in the period 1978-1982 in the meteorological stations of Lucca (m 19,2 a.s.l.) Pisa (m 4 a.s.l.) and Montemagno (m 220 a.s.l.) (Figs. 1, 2, 3).

Data from other stations in the M. Pisano area were not used because lacking and discontinuous.

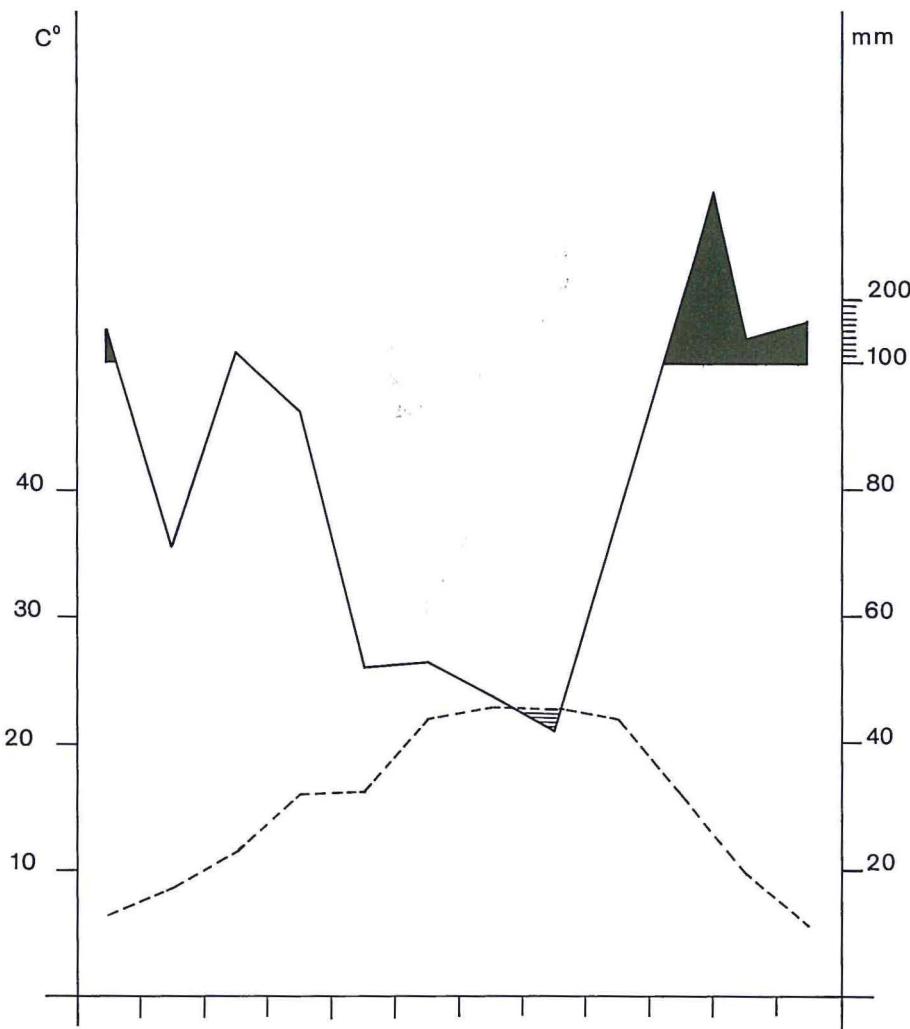


Fig. 1 - Climogram of Lucca (1978-1982), 19.2 m a.s.l.

*An account of the floristic exploration*

The botanical investigation of the area started before 1798, when

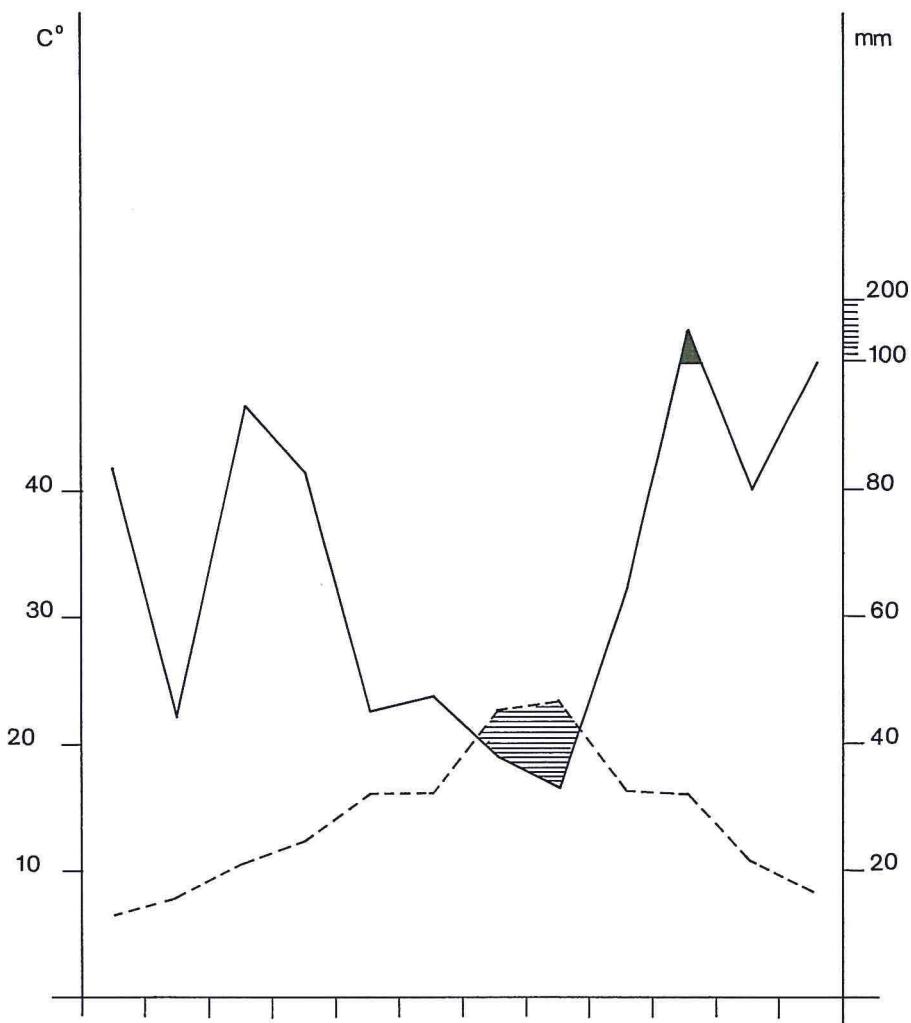


Fig. 2 - Climogram of Pisa (1978-1982), 4 m a.s.l.

SAVI published his «Flora Pisana», which contained many records and also some new species described from the M. Pisano area belonging to the Province of Pisa. Moreover SAVI (1808-1825) added data in his work

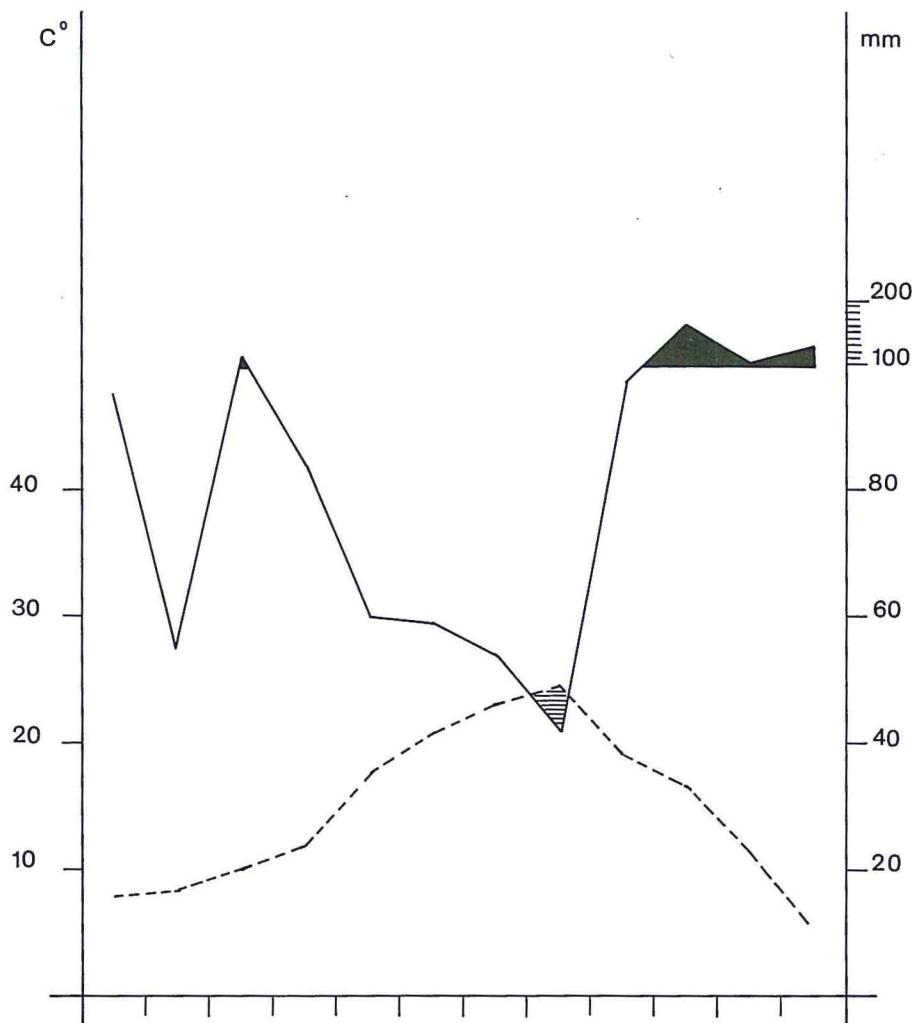


Fig. 3 - Climogram of Montemagno near Calci (1978-1982), 220 m a.s.l.

on the whole flora of Tuscany, «Botanicon Etruscum». Subsequently, data on the plants living in the part of M. Pisano actually included in the Province of Lucca were given by PUCCINELLI (1841-1848) in his

### «Synopsis plantarum in Agro Lucensi sponte nascentium».

Scattered records of plants for Monte Pisano, due to a lot of Authors visiting this area, such as Beccari, Parlatore, Levier, Sommier, Bicchi, Cittadella, Mezzetti, were collected in works of CARUEL (1860) «Prodromo della Flora Toscana» (yet relevant to the whole Tuscany) and in subsequent updatements given by Caruel himself (CARUEL, 1866; 1870) and by BARONI (1897-1908). Afterwards only very scattered records are available in the literature until a multipurpose research started in the Botanical Institute of the University of Pisa, concerning different subjects as fungi (MONTI, TOMEI, 1974; MONTI, 1979; MONTI, FICINI, 1980), medicinal and edibles plants (CORSI, PAGNI, 1978; 1979; PAGNI, CORSI, 1979), *Orchidaceae* (DEL PRETE, CONTE, 1979), aquatic habitats (TOMEI, MARIOTTI, 1979) preservation problems (DEL PRETE, TOMEI, 1979). Simultaneously, intensive field-research and specimens collection were engaged, mostly in years from 1976 to 1985.

#### *The source of the checklist*

The following checklist originates from bibliographical references and field investigations. Taxa are listed and ordered according to PIGNATTI (1982) with only few exceptions quoted when occurring.

The names of taxa, definitely confirmed because collected by the present authors or by other in recent times and preserved in Pisa [PI] are marked !!; taxa which specimens are preserved only in the private herbarium of one of the Authors (F.B.) are marked !!\*; taxa observed in nature but not collected are marked (!). All the mentioned taxa are printed in ***boldface italics***. Names in *plain italics* without parentheses refer to literature records not yet confirmed but not definitely rejected. The relative high number of these last taxa is easily explained by the lot of place-names listed in literature that can be referred either to localities on the true M. Pisano area or in surroundings plains (many villages extend from hills to plain).

Alien (Advenae) plants are listed in square brackets [ ]. For their classification, as not native, we refer to VIEGI et Al. (1974a, 1974b), and to VIEGI and CELA RENZONI (1981).

Cultivated (and not established or escaped) plants are listed only if previously mentioned in literature.

Other exotic taxa are evaluated as proposed by VIEGI and CELA RENZONI (1981) i.e.:

Ac = Exotic not cultivated casual

An = Exotic not cultivated naturalized

Cs = Established or naturalized cultivated aliens.

If their status in the territory of M. Pisano is different from that proposed by VIEGI and CELA RENZONI (1981) for whole Tuscany, the checked position is listed in brackets.

The names in parenthesis { } have been definitely rejected as derived by misidentification and are listed (where possible) with cross references to the correct taxon.

Old references are restricted to those we have considered as basic (i.e. SAVI, 1798; 1808-1825; CARUEL, 1860; 1866; 1870; BARONI, 1897-1908) since they quote all the previous data. Other references after 1908 were checked and listed.

Whenever the names used in the cited papers cited differ from those adopted in this list they are quoted either as synonyms or as misapplied names with the Author's reference.

Most recurring references are shortened as follows:

BAR = BARONI, 1897-1908

BS = BIASOLETTO, SAVI, 1840

CAR = CARUEL, 1860

CAR I = CARUEL, 1866

CAR II = CARUEL, 1870

CP I = CORSI, PAGNI, 1978

CP II = CORSI, PAGNI, 1979

DPC = DEL PRETE, CONTE, 1979

FIORI = FIORI, 1933

MT = MONTI, TOMEI, 1974

MF = MONTI, FICINI, 1980

PC = PAGNI, CORSI, 1979

POS = POSOCO, 1966

PUCC = PUCCINELLI, 1841-1848

SAVI = SAVI, 1798

SAVI II = SAVI, 1808-1825

TM = TOMEI, MARIOTTI, 1979

VCR = VIEGI, CELA RENZONI, 1981

## PTERIDOPHYTA

The species are arranged according to FERRARINI *et Al.* (1986).

*SELAGINELLACEAE**Selaginella* P. Beauv.

{*S. helvetica* (L.) Spring} - CAR II; BAR [Listed on the basis of one only specimen collected by Micheli and fide Caruel once upon a time preserved in PI]. According to FIORI (1943) this record is erroneous and descends by misidentification.

!!*S. denticulata* (L.) Spring - CAR II; BAR; FIORI; POS

*ISÖETACEAE**Isöetes* L.

!!*I. duriei* Bory - CAR II; BAR; FIORI

*EQUISETACEAE**Equisetum* L.

!!\**E. ramosissimum* Desf.

!!*E. palustre* L. - CAR II; BAR; FIORI

!!*E. telmateia* Ehrh. - CAR II [sub *E. maximum*]; BAR [*idem*]; FIORI [*idem*]

!!*E. arvense* L. - FIORI

*OPHIOGLOSSACEAE**Ophioglossum* L.

!!*O. lusitanicum* L. - CAR II; BAR; FIORI

!!*O. vulgatum* L. - SAVI; CAR II; BAR; FIORI; CHIAPPINI, 1969

!!*O. azoricum* K. Presl - FIORI [sub *O. vulgatum* L. f. *ambiguum* Coss. et Germ.]

*OSMUNDACEAE**Osmunda* L.

!!*O. regalis* L. - CAR II; BAR; FIORI; CESCA, 1961; MT; TM; TOMEI and GARBARI, 1979

*POLYPODIACEAE**Polypodium* L.

!!\**P. cambricum* L. subsp. *serrulatum* (Sch. ex Arcang.) Pic. Ser. - FIORI [sub *P. vulgare* L. var. *serratum* Willd.; MF [sub *P. australe* Fee] [*P. vulgare* L.] - SAVI; CAR II; BAR; FIORI [sub *P. vulgare* var. *typicum* et f. *commune*]; CESCA, 1961; MT. All the records for this species have

to be referred - *pro maxima parte* - to *P. interjectum* and perhaps to *P. cambricum* (cf. NARDI and TOMMEI, 1976)

**!!*P. interjectum* Shivas**

*SINOPTERIDACEAE*

*Cheilanthes* Swartz

*C. acrostica* (Balb.) Tod. - FIORI [sub *C. fragrans* Webb et Berth. var. *acrostica* Tod.]; FERRARINI *et Al.*, 1986]

!!\**C. tinaei* Tod. - CAR II [sub *C. odora*]; BAR [*idem*]; FIORI [sub *C. fragrans* Webb et Berth. var. *commutata* (Trevis.) Fiori]; NARDI *et Al.*, 1978 [sub *C. corsica* Reichst. et Vida]; FERRARINI *et Al.*, 1986

*PTERIDACEAE*

*Pteris* L.

!!\**P. cretica* L.

*ADIANTACEAE*

*Adiantum* L.

!!\**A. capillus-veneris* L. - CAR II; BAR; FIORI; TONGIORGI, 1936; MT

*HEMIONITIDACEAE*

*Anogramma* Link

!!*A. leptophylla* (L.) Link - SAVI II [sub *Grammitis leptophylla* Willd.]; CAR II [sub *Grammitis leptophylla* Swartz]; BAR [sub *Gymnogramme leptophylla* Desv.]; FIORI [*idem*]

*HYMENOPHYLLACEAE*

*Hymenophyllum* Sm.

*H. tunbrigense* (L.) Sowerby - PICHI SERMOLLI (1936; 1937); FIORI; FERRARINI *et Al.*, 1986 [!Puccinelli Coll. LUCCA, PI]. Last records refer to XIX century: the species needs confirmation.

*HYPOLEPIDACEAE*

*Pteridium* Gled. ex Scop.

!!*P. aquilinum* (L.) Kuhn subsp. *aquilinum* - SAVI [sub *Pteris aquilina* L.]; CAR II [*idem*]; BAR [*idem*]; FIORI [*idem*]; GIORDANO, 1953; MT; GELINI, 1979

**THELYPTERIDACEAE**

*Phegopteris* (K. Presl.) Fée

*P. connectilis* (Michx.) Watt - FIORI [sub *Polypodium phegopteris* L.]

*Thelypteris* Smidel

!!\****T. palustris*** Schott - CAR II [sub *Aspidium thelypteris* Swartz]; FIORI [sub *Dryopteris thelypteris* A. Gray]

**ASPLENIACEAE**

*Asplenium* L.

!!***A. onopteris*** L. - SAVI [sub *A. adiantum-nigrum* L.]; CAR II [*idem*]; BAR [*idem*]; FIORI [*idem*]; MT [*idem*]. All the records of *A. adiantum-nigrum* for the M. Pisano have to be referred here.

{*A. adiantum-nigrum* L.} see *A. onopteris*

*A. obovatum* Viv. - FIORI [sub *A. fontanum* var. *obovatum* Fiori]; CESCA, 1961 [*Idem*]

!!\****A. billotii*** F.W. Schultz - CAR II [sub *A. lanceolatum* Huds.]; BAR [*idem*]; FERRARINI et Al., 1986

{*A. fontanum* (L.) Bernh.} - FIORI - The old records to this species s.l. have to be referred to *A. billotii* and perhaps to *A. obovatum*.

*A. forezienne* Legrand et Magner - FIORI [sub *A. fontanum* var. *foresiacum* (Legrand) Ray-Pahilade]; FERRARINI et Al., 1986 [Doubtfully]

!!***A. trichomanes*** L. subsp. *trichomanes* - CAR II; BAR; FIORI [sub *A. trichomanes* L. f. *inciso-crenato* Aschers.]; TONGIORGI, 1936; MT; MF

!!***A. trichomanes*** L. subsp. *quadrivalens* D.E. Meyer - FERRARINI et Al., 1986

!!***A. ruta-muraria*** L. subsp. *ruta-muraria* - SAVI; CAR II; BAR; FIORI; MT

!!***A. septentrionale*** (L.) Hoffm. subsp. *septentrionale* - CAR II; BAR; FIORI

*Ceterach* Willd.

!!***C. officinarum*** Willd. subsp. *officinarum* - CAR II; BAR; FIORI; TONGIORGI, 1936

*Phyllitis* Hill

!!\****P. scolopendrium*** (L.) Newman subsp. *scolopendrium* - SAVI [sub *Asplenium scolopendrium* L.]; CAR II [sub *Scolopendrium officinale* Sm.]; BAR [sub *Scolopendrium vulgare* Sm.]; CESCA, 1961 [*idem*]; MT

**ATHYRIACEAE***Athyrium* Roth

!!\**A. filix-femina* (L.) Roth - SAVI [sub *Polypodium filix-foemina* L.]; CAR II; BAR [sub *Asplenium filix-foemina* Bernh.]; FIORI [*idem*]; CESCA, 1961 [*idem*]; MT

**ASPIDIACEAE***Dryopteris* Adans.

!!\**D. dilatata* (Hoffm.) A. Gray - FERRARINI *et Al.*, 1986

[*D. filix-mas* (L.) Schott] - SAVI [sub *Polypodium filix-mas* L.]; CAR II [sub *Aspidium filix-mas* Swartz]; BAR [sub *Nephrodium filix-mas* Stremp.]; FIORI; MT; MF; All the references to this species have to be referred to *D. affinis*.

!!*D. affinis* (Lowe) Fras.-Jenk. subsp. *affinis* var. *disjuncta* (Fomin) Fras.-Jenk. - FERRARINI *et Al.*, 1986. Cfr. also under *D. filix-mas*.

*Polystichum* Roth

!!*P. setiferum* (Forssk.) T. Moore ex Woynar - FIORI [sub *Dryopteris aculeata* O. Kuntze var. *setifera* Guadagno], see also sub *P. aculeatum* [*P. aculeatum* (L.) Roth] - CAR II [sub *Aspidium aculeatum* Doell]; BAR [sub *A. aculeatum* Sw.]; CESCA, 1961. All the references to this species have to be referred to *P. setiferum*.

**BLECHNACEAE***Blechnum* L.

!!\* *B. spicant* (L.) Roth - CAR II; BAR; FIORI; CESCA, 1961; MT

**SALVINIACEAE***Salvinia Seguier*

!!*S. natans* (L.) All. - BS; CAR II; BAR; FIORI. Widespread in Fosso dell'Acquacalda in the plain near S. Giuliano Terme.

*Azolla* Lam. in Lam. et Poir.

[*A. caroliniana* Willd.] An - BAR; SAVELLI, 1915 [sub *A. filiculoides* Lam.]; FIORI

**PINOPHYTA****PINACEAE***Cedrus* Trew.

![*C. atlantica* (Endl.) Carriere] Cultivated - MT

![*C. libani* A. Rich.] Cultivated - MT

*Pinus* L.

!!*P. pinaster* Aiton - BS; CAR; GIORDANO, 1953; CP I; PC; TM; MF; MT; GELLINI, 1979

!*P. laricio* Poir. - SAVI [sub *P. resinosa*]; BAR [sub *P. silvestris* L.]; LONGO, 1922; GELLINI et CAVALLI, 1978; GELLINI, 1979

{*P. sylvestris* L.} - BAR [cf. sub *P. laricio*]

![*P. pinea* L.] Cs - CAR; MF

#### CUPRESSACEAE

*Cupressus* L.

!![*C. sempervirens* L.] Cs (widely naturalized) - DPT; MF

*Thuja*

![*T. orientalis* L.] Cs (Cultivated) - MT

*Juniperus* L.

!!*J. communis* L. - SAVI; GIORDANO, 1953; MT; CP I; PC; MF

!!*J. oxycedrus* L. subsp. *macrocarpa* (Sibth. et Sm.) Ball - SAVI; MT; MF

#### TAXACEAE

*Taxus* L.

![*T. baccata* L.] - VCR (in the M. Pisano only cultivated)

### MAGNOLIOPHYTA - DICOTYLEDONES

#### MAGNOLIACEAE

*Magnolia* L.

![*M. grandiflora* L.] Cultivated - MT

![*M. obovata* Willd.] Cultivated - MT

#### SALICACEAE

*Salix* L.

!*S. alba* L. subsp. *alba* - MT

!![*S. alba* L. subsp. *vitellina* (L.) Arcang.] Cultivated - CAR [sub *S. alba* var. *vitellina* L.]

!*S. cinerea* L. - PUCC; CAR

*Populus* L.

!!*P. alba* L. - CP I; MT  
![*P. nigra* L.] Cultivated

#### *JUGLANDACEAE*

*Juglans* L.

!![*J. regia* L.] Cs (in the territory only cultivated) - CP I; PC

#### *BETULACEAE*

*Alnus* Miller

!!*A. glutinosa* (L.) Gaertner - CESCA, 1961; CP I; PC; TM; MT; GELLINI, 1979

#### *CORYLACEAE*

*Carpinus* L.

!*C. betulus* L. - SAVI; CAR

*Ostrya* Scop.

!!*O. carpinifolia* Scop. - SAVI [sub *Carpinus ostrya* L.]; PUCC [sub *Ostrya vulgaris* L.]; CAR

*Corylus* L.

!!*C. avellana* L. - SAVI; CAR; MT; MF

#### *FAGACEAE*

*Fagus* L.

!!*F. sylvatica* L.

*Castanea* Miller

![*C. sativa* Miller] Widespread, but perhaps not autoctonous - SAVI; GELLINI, 1979

*Quercus* L.

!*Q. cerris* L. - SAVI [sub *Q. crinita*]; CAR

!!*Q. ilex* L. - SAVI; CAR; MF

{*Q. suber* L.} - CAR [Perhaps the records of this species have to be attributed to *Q. x morisii*]

*Q. petraea* (Mattuschka) Liebl. - CAR [sub *Q. sessiflora* Sal. var. *pubescens* Savi]

*Q. robur* L. - SAVI, [etiam sub *Q. racemosa*]; CAR [sub *Q. pedunculata* Ehr. var. *pubescens*]

!!*Q. pubescens* Willd. - CP I; PC; MF

{*Q. pseudosuber* Santi} - PUCC; MF; TC [The records for this species have to be referred to the following one]

!!***Q. x morisii*** Borzì - PUCC; MF; [sub *Q. pseudosuber* Santi] TC [*idem*]

#### *ULMACEAE*

*Ulmus* L.

!***U. minor*** Miller - CAR [sub *U. campestris* L. var. *suberosa* Koch]; MT

*Celtis* L.

!***C. australis*** L. - BAR; DPT

*Morus* L.

![***M. alba*** L.] Cs - VCR

*Ficus* L.

!!***F. carica*** L. - TM; MF

#### *CANNABACEAE*

*Humulus* L.

!!***H. lupulus*** L. - CP II

#### *URTICACEAE*

*Urtica* L.

!***U. dioica*** L.

!***U. urens*** L. - PUCC; CAR

!!***U. membranacea*** L. - CP I; CP II; PC [sub *U. dubia* Förssk.]

*Parietaria* L.

!!***P. diffusa*** Waldst. et Kit. - CP I; PC [sub *P. judaica* L.]; MF

#### *SANTALACEAE*

*Osyris* L.

!!***O. alba*** L. - SAVI; BS; PUCC; CAR

*Thesium* L.

{*T. linophyllum* L.} SAVI; PUCC [CAR attributes these records to *T. divaricatum*]

!!***T. divaricatum*** Jan - PUCC; CAR

#### *ARISTOLOCHIACEAE*

*Aristolochia* L.

This genus is arranged according to NARDI, 1984

!***A. clematitidis*** L. - SAVI; NARDI, 1984

!!***A. rotunda*** L. - NARDI, 1984

**RAFFLESIACEAE***Cytinus* L.*C. hypocistis* (L.) L. - PUCC; CAR**CACTACEAE***Opuntia* Miller![*O. ficus-indica* (L.) Miller] Cs - BAR; VCR[*O. intermedia* S. Dyck] Cs - ARCANGELI, 1904; FIORI, 1923-1929; VCR**POLYGONACEAE***Polygonum* L.!!*P. aviculare* L. - PC*P. minus* Hudson - CAR I!*P. hydropiper* L.!*P. lapathifolium* L.!*P. persicaria* L.*Fallopia* Adanson*F. dumetorum* (L.) Holub - CAR [sub *Polygonum dumetorum* L.]; BAR[*idem*]*Rumex* L.*R. acetosella* L. - SAVI!!*R. acetosa* L. - CAR[*R. patientia* L.] Cs - SAVI; CAR; According to VCR it is probably extinct.!!*R. crispus* L. - CP I; CP II; PC*R. obtusifolius* L. subsp. *obtusifolius* - CAR!!*R. pulcher* L. - SAVI**CHENOPODIACEAE***Polycnemum* L.*P. arvense* L. - CAR*Beta* L.!![*B. vulgaris* L. subsp. *vulgaris*] Cult - PC*Chenopodium* L.!!*C. botrys* L.!!*C. vulvaria* L.!*C. murale* L.!*C. album* L.

*AMARANTHACEAE**Amaranthus*

- ![*A. retroflexus* L.] An - VCR  
 [*A. albus* L.] Cs - BAR; VCR  
 !!*[A. deflexus* L.] An  
 !*[A. caudatus* L.] Cs

*PHYTOLACCACEAE*

- Phytolacca* L.  
 !*[P. americana* L.] Cs - VCR

*PORTULACACEAE*

- Montia* L.  
*M. fontana* L. - CAR

*CARYOPHYLLACEAE*

- Arenaria* L.  
*A. serpyllifolia* L. - CAR  
*Moehringia* L.  
*M. trinervia* (L.) Clairv. - CAR  
*Minuartia* L.  
*M. hybrida* (Vill.) Schischkin - SAVI [sub *Arenaria tenuifolia* L.]; PUCC  
 [idem]; CAR [sub *Alsine tenuifolia* Crantz]

- Stellaria* L.  
*S. nemorum* L. - SAVI  
 !!*S. media* (L.) Vill. subsp. *media*  
 !*S. pallida* (Dumort) Pirè  
*S. graminea* L. - BAR

- Holosteum* L.  
*H. umbellatum* L. - CAR I; BAR

- Cerastium* L.  
 {*C. tomentosum* L. } - SAVI (but very likely erroneously; CAR referred  
 this record to *C. arvense*)  
 !!\**C. arvense* L. - SAVI [sub *C. tomentosum* and *C. latifolium*]; CAR  
 [*C. alpinum* L.] - PUCC (but very likely erroneously; probably has to be  
 referred to *C. arvense*)  
 {*C. latifolium* L.} - SAVI (but very likely erroneously; CAR referred this  
 record to *C. arvense*)

**!!*C. sylvaticum* Waldst. et Kit.**

**!!*C. glomeratum* Thuill.** - PUCC [sub *C. viscosum* L.]; CAR

**!!*C. ligusticum* Viv.** - CAR [sub *C. campanulatum* Viv.]

*C. glutinosum* Fries - CAR

**!!*C. semidecandrum* L.**

*Moenchia* Ehrh.

**!!*M. erecta* (L.) Gaertner** - PUCC; CAR [sub *Cerastium glaucum* Gren.

var. *quaternellum* Gren.]; BAR [sub *C. quaternellum* Fenzl]

*M. mantica* (L.) Bartl. - CAR [sub *Cerastium glaucum* Gren. var. *manticum* Gren.]

*Sagina* L.

*S. subulata* (Swartz) Presl - CAR

**!!*S. saginoides* (L.) Karsten** - SAVI [sub *Spergula saginoides*]

*S. procumbens* - PUCC; CAR

*S. apetala* Ard. - BAR

*Scleranthus* L.

*S. annuus* L. - PUCC; CAR

*Corrigiola* L.

*C. litoralis* L. - CAR I; BAR

*Illecebrum* L.

*I. verticillatum* L. - PUCC; CAR

*Spergula* L.

*S. arvensis* L. - PUCC; CAR

*Spergularia* (Pers.) Presl

**!!*S. rubra* (L.) Presl** - PUCC [sub *Arenaria rubra* L.]; CAR [sub *Lepigonum rubrum* Wahlb.]

*Lychnis* L.

**!!*L. flos-cuculi* L.**

*Silene* L.

**!!*S. italicica* (L.) Pers. subsp. *nemoralis* (Waldst. et Kit.) Nym.** - CAR

**!!*S. otites* (L.) Wibel** - CAR; POS

**!!*S. vulgaris* (Moench) Garke subsp. *vulgaris*** - SAVI [sub *Cucubalus behen* L.]; CAR [sub *S. inflata* Smith]

*S. armeria* L. - SAVI; CAR

**!!*S. alba* (Miller) Krause** - CAR [sub *Lychnis alba* Mill.]

**!!*S. conica* L.** - CAR

*Saponaria* L.

**!!*S. ocymoides* L.** - SAVI; CAR; POS

***S. officinalis* L. - PUCC***Petrorhagia* (Ser.) Link***P. prolifera* (L.) P.W. Ball et Heywood** - SAVI [sub *Dianthus prolifer* L.]; CAR [*idem*]; BAR [*idem*]*P. velutina* (Guss.) P.W. Ball et Heywood - CAR [sub *Dianthus velutinus* Guss.]*Dianthus* L.***D. sylvestris* Wulfen in Jacq. subsp. *sylvestris*** - SAVI [sub *Dianthus virgineus* L.]; CAR***D. carthusianorum* L. subsp. *carthusianorum*** - SAVI; CAR; BAR [etiam sub var. *sassiniiana* Arc.]; POS*D. armeria* L. - SAVI; CAR***CERATOPHYLLACEAE****Ceratophyllum* L.*C. demersum* L. - CAR***RANUNCULACEAE****Helleborus* L.***H. foetidus* L. - SAVI; CAR**[*H. viridis* L.] - SAVI; CAR; MF (cf. sub *H. odorus*)***H. odorus* Waldst. et Kit. subsp. *laxus* (Host.) Merxm. et Podl. - SAVI** [sub *H. viridis* L.]; CAR [*idem*]; MF [*idem*]; None specimen corresponding to *H. viridis* s.s. has been found in the M. Pisano.*Nigella* L.***N. damascena* L. - POS***Delphinium* L.*D. halteratum* Sibth. et Sm. - BAR*Consolida* (DC.) S.F. Gray***C. ajacis* (L.) Schur - CAR; CAR I [sub *Delphinium ajacis* L.]; BAR [*idem*]***C. regalis* S.F. Gray subsp. *regalis* - CAR I [sub *Delphinium consolida* L.]; BAR [*idem*][*C. orientalis* (Gay) Schroedinger] Cultivated and according to BAR one only time escaped - BAR*Anemone* L.***A. nemorosa* L. - CAR; CESCA, 1961; MT; TM*****A. hortensis* L. - SAVI [sub *A. stellata* DC.]**; CAR; POS; MF***A. pavonina* Lam. - CAR**

**!!A. coronaria L. - PUCC; BAR***Clematis* L.**!!C. flammula L. - MT****!!C. vitalba L. - CP II; PC***Adonis* L.**!!A. annua L. subsp. *cupaniana* (Guss.) Steinberg***Ranunculus* L.**!!R. lanuginosus L. - PUCC; CAR; CAR I; BAR****!!R. velutinus** Ten.**!!R. repens** L.**!!R. nemorosus DC. - CAR; BAR****!!R. bulbosus L. subsp. *bulbosus****R. sardous* Crantz - CAR [sub. *R. philonotis* Retz]; BAR*R. muricatus* L. - CAR**!R. arvensis** L.*R. parviflorus* L. - CAR*R. flabellatus* Desf - CAR [sub *R. chaerophyllos* L.]; BAR**!!R. ficaria L. subsp. *ficaria* - CP II***R. flammula* L. - CAR*R. ophioglossifolius* Vill. - CAR; BAR*R. trichophyllus* Chaix - CAR [sub *R. trychophyllus* Chaix var. *terrestris* Caruel]*Myosurus* L.*M. minimus* L. - CAR*Aquilegia* L.**!A. vulgaris L. - SAVI; CAR***Thalictrum* L.**!T. aquilegifolium L. - SAVI II****GUTTIFERAE***Hypericum* L.*H. montanum* L. - SAVI II; CAR*H. humifusum* L. - CAR; BAR**!H. tetrapterum** Fries - CAR [sub *H. quadrangulum* L.]**!!H. perforatum L. subsp. *perforatum* - SAVI; POS****!![H. mutileum L.] An - CAR; BAR; MT; VCR****!H. androsaemum L. - SAVI; CAR****LAURACEAE***Laurus* L.

***L. nobilis* L.****PAPAVERACEAE***Papaver* L.![*P. somniferum* L.] Cs (cultivated) - VCR*P. setigerum* DC. - CAR I; BAR [sub *P. somniferum* L. var. *setigerum* DC.]!!*P. rhoeas* L. subsp. *rroeas*!!*P. argemone* L. - CP I; CP II; PC!*P. hybridum* L. - PUCC; CAR*Chelidonium* L.!!*C. majus* L. - CP I; PC*Fumaria* L.*F. muralis* Boiss. et Sonder - CAR; BAR [sub *F. media* Loisel.]!!*F. capreolata* L. - PUCC; MF!!*F. officinalis* L. - CP I; MF**CAPPARIDACEAE***Capparis* L.!!*C. spinosa* L. - CAR [sub *C. rupestris* Sibth. et Sm.]**CRUCIFERAE***Sisymbrium* L.!!*S. officinale* (L.) Scop.*Alliaria* Scop.!!*A. petiolata* (Bieb.) Cavara et Grande - CAR [sub *Sisymbrium alliaria* Scop.]*Arabidopsis* (DC.) Heynh.!!*A. thaliana* (L.) Heynh.*Bunias* L.!!*B. erucago* L. - CP II*Erysimum* L.[*E. repandum* L. } - SAVI[*E. cheiranthoides* L.} - SAVI!*E. pseudorhaeticum* Polatschek - SAVI [sub *Cheiranthes alpinus* L.]; CAR [sub *E. cheiranthes* Pers.]![*E. cheiri* (L.) Crantz] Cs*Barbarea* R. Br.!!*B. vulgaris* R. Br. - PUCC; CAR

*B. verna* (Miller) Aschers. - CAR [sub *B. praecox* R. Br.]

*Nasturtium* R. Br.

***N. officinale* R. Br.**

*Cardamine* L.

!!***C. bulbifera* (L.) Crantz** - PUCC [sub *Dentaria bulbifera* L.]; CAR [*idem*]

!!***C. heptaphylla* (Vill.) Schulz** - PUCC [sub *Dentaria pinnata* Lam.]; CAR [*idem*]

***C. pratensis* L.** - CAR

*C. parviflora* L. - CAR

*C. impatiens* L. - SAVI; CAR

!!***C. hirsuta* L.**

*Arabis* L.

!!***A. sagittata* (Bertol.) DC.**

!!***A. hirsuta* (L.) Scop.** - CAR

!!***A. collina* Ten.** - SAVI II [sub *A. muralis* Bert.]; CAR [*idem*]

!!***A. turrita* L.** - PUCC; CAR

!!***A. alpina* L. subsp. *caucasica* (Willd. ) Briq.**

*Alyssum* L.

*A. montanum* L. - CAR

*Lobularia* Desv.

***L. maritima* (L.) Desv.** - SAVI [sub *Alyssum maritimum* L.]; CAR

*Draba* L.

!!***D. muralis* L.**

*Erophila* DC.

!!***E. verna* (L.) Chevall.**

*Neslia* Desv. - CAR

*N. paniculata* (L.) Desv. - CAR

*Capsella* Medicus

!!***C. bursa-pastoris* (L.) Medicus**

!!***C. rubella* Reuter**

*Hornungia* Reichenb.

!!***H. petraea* (L.) Reichenb.** - CAR [sub *Hutchinsia petraea* R. Br.]; BAR [*idem*]

*Iberis* L.

!!***I. umbellata* L.** - SAVI; PUCC; CAR

*Biscutella* L.

!!***B. cichoriifolia* Loisel.** - PUCC [sub *B. hispida* DC.]; CAR; [etiam sub *B. hispida*]; CAR I [*idem*]; POS; DPT

[*B. auriculata* L.] - CAR I; BAR. All the records for this species have to be referred to *B. cichoriifolia*, cf. BAR.

*Lepidium* L.

!*L. graminifolium* L.

!!*L. campestre* (L.) R. Br.

*Cardaria* Desv.

!!*C. draba* (L.) Desv.

*Diplotaxis* DC.

!!*D. erucoides* (L.) DC.

*D. muralis* (L.) DC. - BAR

*Brassica* L.

!![*B. oleracea* L. subsp. *oleracea*] Cult - CP I; PC

!![*B. rapa* L.] Cs - CAR [sub *B. campestris* L.]; PC

*Sinapis* L.

!!*S. arvensis* L. - PUCC

*Rapistrum* Crantz

!!*R. rugosum* (L.) All - PUCC

*Calepina* Adanson

!*C. irregularis* (Asso) Thell. in Schinz et Keller - CAR [sub *C. corvinii* Desv.]; BAR [*idem*]

*Raphanus* L.

!!*R. raphanistrum* L. subsp. *raphanistrum* - PUCC; CAR

!*R. raphanistrum* L. subsp. *landra* (Moretti) Bonnier

*Octodium* DC.

[*O. aegyptiacum* DC.] Ac - BAR; VCR. Observed only once in 1877 (Cf. BAR)

## RESEDACEAE

*Reseda* L.

*R. luteola* L. - PUCC

!!*R. lutea* L. - BAR

## DROSERACEAE

*Drosera* L.

!!*D. rotundifolia* L. - PUCC; CAR; TM; TOMEI and GARBARI, 1979; FICINI et Al., 1980

!!*D. intermedia* Hayne in Dreves - PUCC [sub *D. longifolia* Bertol.]; CAR

TOMEI and GARBARI, 1979; FICINI *et Al.*, 1980

### *CRASSULACEAE*

#### *Crassula*

*C. tillaea* Lester-Garland - CAR II [sub *Tillaea muscosa* L.]; BAR [*idem*]

*Umbilicus* DC.

!!*U. rupestris* (Salisb.) Dandy - CAR [sub *U. pendulinus* DC.]; CP I; PC  
*U. erectus* DC. - MF

#### *Sedum* L.

{*S. telephium* L.} - SAVI. This record has probably to be referred to *S. maximum*

#### !!*S. sediforme* (Jacq.) Pam.

*S. maximum* (L.) Suter - SAVI [sub *S. telephium* L.]; BAR

!!*S. rupestre* L. subsp. *rupestre* - CAR; MT

#### !!*S. sexangulare* L.

#### !!*S. dasypodium* L.

*S. monregalense* Balbis - CAR I; BAR

*S. cepaea* L. - PUCC [sub *S. gallioides* Latour.]

!*S. stellatum* L. - CAR; POS

*S. rubens* L. - BAR

!!*S. reflexum* L. - MF

### *SAXIFRAGACEAE*

#### *Saxifraga* L.

!!*S. tridactylites* L. - PUCC

!*S. bulbifera* L. - PUCC; CAR

### *ROSACEAE*

#### *Filipendula* Miller

!*F. vulgaris* Moench - PUCC [sub *Spiraea filipendula* L.]; CAR [*idem*]

#### *Rubus* L.

!!*R. fruticosus* L. - MT; CP I; PC

*R. canescens* DC. - PUCC [sub *R. tomentosus* Willd.]; CAR [sub *R. tomentosus* Borkh.]

*R. hirtus* Waldst. et Kit. - CAR [sub *R. glandulosus* Bellardi]

*R. caesius* L. - SAVI; CAR [sub *R. coryfolius* Sm. var. *spinossissimus*]

#### *Rosa* L.

*R. seraphini* Viv. - PUCC; BAR; NEPI, 1989

!!*R. agrestis* Savi - SAVI; NEPI, 1989

!!*R. canina* L. - SAVI

*R. rubiginosa* L. - SAVI; CAR

*R. micrantha* Sm. - CAR

!!*R. gallica* L. - CAR [sub *R. gallica* var. *pumila* Lindl.]; NEPI, 1989

!!*R. sempervirens* L. - SAVI; CAR; CP I; PC; NEPI, 1989

*Agrimonia* L.

!!*A. eupatoria* L. - CP I

*Sanguisorba* L.

!!*S. minor* Scop. subsp. *minor* - SAVI [sub *Poterium sanguisorba* L.];

CAR [*idem*]; MT [*idem*]; CP II

*Geum* L.

!!*G. urbanum* L. - SAVI; PUCC; CAR

*Potentilla* L.

!!*P. hirta* L. - CAR

!!*P. reptans* L. - MF

*P. tabernaemontani* Asch. - CAR [sub *P. verna* L.]

!!*P. erecta* (L.) Rauschel - SAVI [sub *P. tormentilla* Savi]; PUCC [sub *Tormentilla erecta* L.]; CAR [sub *P. tormentilla* Sibth. and sub *P. procumbens* Smith]

{*P. anglica* Laicharding} - CAR [sub *P. procumbens* Smith]; Species excludenda, etiam a tota flora italicica, cf. PIGNATTI, 1982.

!!*P. micrantha* Ramond - SAVI II [sub *Fragaria sterilis* L.]; PUCC [sub *P. fragariastrum* Ehr.]; CAR [*idem*]

*Fragaria* L.

!!*F. vesca* L. - SAVI; PUCC; CAR; CESCA, 1961; MF

*F. viridis* Duchesne - PUCC [sub *F. collina* Ehr.]; CAR [*idem*]

*Pyrus* L.

!!*P. communis* L. - PUCC; CAR; MT; MF

*Malus* Miller

!!*M. domestica* Borkh. - MT; CP I; MF

*Pyracantha* M.J. Roemer

!!*P. coccinea* M.J. Roemer - PUCC [sub *Mespilus pyracantha* L.]

*Mespilus* L.

!!*[M. germanica* L.] Cs - PUCC; CAR; VCR

*Crataegus* L.

!!*C. monogyna* Jacq. subsp. *monogyna* - CP I; PC

*Prunus* L.

[*P. dulcis* (Miller) D.A. Webb] Cs - VCR

**!P. spinosa** L.

!!*P. avium* L. - CAR; MT; CP I; PC

![*P. cerasus* L. subsp. *cerasus*] Cs - VCR

!!*P. mahaleb* L. - PUCC; CAR; DPT

*Sorbus* L.

**!S. aucuparia** L. - MT

**!S. torminalis** (L.) Crantz - GELLINI, 1979

### LEGUMINOSAE

*Laburnum* Fabr.

!!*L. anagyroides* Medicus - SAVI [sub *Cytisus laburnum* L.] CAR [*idem*]

*Calycotome* Link

*C. spinosa* (L.) Link - SAVI II [sub *Spartium spinosum* L.]; PIGNATTI, 1982

*Cytisus* L.

*C. sessilifolius* L. - PUCC; CAR

!!*C. villosus* Pourret - SAVI [sub *C. triflorus* L'Her.]; CAR [*idem*]

!!*C. scoparius* (L.) Link - SAVI [sub *Genista scoparia*]; MF [sub *Sarothamnus scoparius* Wimmer]

*Chamaecytisus* Link

!!*C. hirsutus* (L.) Link - CAR [sub *Cytisus prostratus*]

*Teline*

!!*T. monspessulana* (L.) Koch - CAR [sub *Genista candicans* L.]; TM

*Genista* L.

!!*G. tinctoria* L. - SAVI; CAR

*G. januensis* Viv. - SAVI [sub *G. j.* Bertol.]; SAVI II [*idem*] PUCC [sub

*G. genevensis* Bert.]; CAR

!!*G. pilosa* L. - SAVI II; BS; CAR

!!*G. germanica* L. - SAVI; CAR

*Spartium* L.

!!*S. junceum* L. - SAVI [sub *Genista juncea*]; DPT; MF; MT

*Ulex* L.

!!*U. europaeus* L. - SAVI; CAR; GIORDANO, 1953; CESCA, 1961; TM; MF;

GELLINI, 1979

*Lupinus* L.

!![*L. albus* L.] Cultivated and sometimes escaped - CP I; PC

*Robinia* L.

!![*R. pseudacacia* L.] Cs, widely naturalized - BAR; MT; GELLINI, 1979

*Colutea* L.

*C. arborescens* L. - SAVI; CAR

*Astragalus* L.

**!A. glycyphyllos** L.

**!!A. monspessulanus** L. subsp. **monspessulanus** - CAR

**!!A. muelleri** Steud. et Hochst - PUCC [sub *A. argenteus* Vis.]; CAR [sub *A. argenteus* Bertol.]; FIORI, 1923-1929 [sub *A. vegliensis* Sedler]

*Cicer* L.

[*C. arietinum* L.] Cs - VCR

*Vicia* L.

**!V. cracca** L.

*V. incana* Gouan - CAR [sub *V. gerardii* All.]

*V. ervilia* (L.) Willd. - PUCC [sub *Ervum ervilia* L.]; CAR [*idem*]

*V. hirsuta* (L.) S.F. Gray - CAR [sub *Ervum hirsutum* L.]

**!!V. disperma** DC.

**!!V. tenuissima** (Bieb.) Schinz et Thell. - CAR [sub *Ervum gracile* L.]

*V. tetrasperma* (L.) Schreber - SAVI [sub *Ervum tetraspermum* L.]; SAVI II [*idem*]; CAR [*idem*]

*V. pubescens* (DC.) Link - CAR [sub *Ervum pubescens* DC.]

*V. sepium* L. - SAVI; CAR

**!!V. sativa** L. subsp. **sativa**

**!!V. sativa** L. subsp. **cordata** (Wulfen) Asch. et Graeb.

**!V. lathyroides** L. subps. **lathyroides** - SAVI II; CAR

**!V. peregrina** L. - CAR

**!V. lutea** L. subsp. **lutea**

**!!V. hybrida** L. - PUCC; CAR

**!!V. bithynica** L.

**!!V. narbonensis** L. - PUCC; CAR

**!![V. faba** L.] Cs

*Lens* Miller

*L. ervoides* (Brign.) Grande - BAR [sub *Ervum uniflorum* Ten.]

*Lathyrus* L.

**!!L. vernus** (L.) Bernh. subsp. **vernis** - SAVI [sub *Orobus vernus* L.]; PUCC [*idem*]

**!!L. venetus** (Miller) Wohlf. - BAR [sub *L. variegatus* Gren. et Godr.]

*L. niger* (L.) Bernh. - CAR

**!!L. montanus** Bernh. - CAR [sub *L. machrorrhizus* Wimmer]

**!!L. pratensis** L. - CAR

**!!L. tuberosus** L.

**!!*L. sylvestris* L. - CAR** [sub *L. silvester* L.]

**!!*L. latifolius* L.**

**!!*L. sphaericus* Retz. - SAVI II; PUCC; CAR**

**!!*L. setifolius* L. - SAVI II; CAR; POS**

*L. cicera* L. - CAR

**!!*L. hirsutus* L.**

**!*L. ochrus* (L.) DC.**

**!*L. aphaca* L.**

*Ononis* L.

**!!*O. reclinata* L. - SAVI; SAVI II; CAR**

**!!*O. spinosa* L. subsp. *spinosa***

**!!*O. natrix* L.**

*Melilotus* Miller

**!*M. officinalis* (L.) Pallas - SAVI**

**!!*M. sulcata* Desf. - PUCC; CAR**

*Medicago* L.

**!!*M. lupulina* L.**

**![*M. sativa* L. subsp. *sativa*] Cs - VCR**

*M. orbicularis* (L.) Bartal. - BAR [sub *M. orbicularis* L. var. *marginata* Willd.]

*M. rigidula* (L.) All. - PUCC [sub *M. gerardii* Waldst.]; CAR [sub *M. gerardii* Willd.]

*M. truncatula* Gaertn. var. *tribuloides* (Desr.) Burnat CAR [sub *M. tribuloides* Desr.]

*M. tuberculata* (Retz.) Willd. - BAR

*M. murex* Willd. - CAR [sub *M. sphaerocarpos* Bert.]

**!!*M. arabica* (L.) Hudson**

**!!*M. minima* (L.) Bartal.**

*Trifolium* L.

**!*T. repens* L. - CAR**

*T. hybridum* L. subsp. *elegans* (Savi) Aschers. et Graebn. - SAVI [sub *T. elegans* Savi]; CAR [*idem*]

**!!*T. nigrescens* Viv. subsp. *nigrescens***

*T. glomeratum* L. - SAVI; CAR

*T. soffocatum* L. - CAR I

*T. resupinatum* L. - CAR

*T. tomentosum* L. - BAR

**!!*T. campestre* Schreber - POS**

*T. micranthum* Viv. - PUCC [sub *T. filiforme* L.]; CAR [*idem*]

*T. striatum* L. - CAR

***T. arvense* L.**

*T. boccone* Savi - SAVI II [sub *T. boccone* (*sic!*) Savi]; BS [sub *T. bocconi* Savi]; CAR [*idem*]

*T. ligusticum* Balbis - SAVI II; CAR

***T. scabrum* L.** - PUCC; CAR; POS

***!!T. stellatum* L.** - CAR; POS

***!!T. incarnatum* L. subsp. *incarnatum*** - CAR

***!!T. incarnatum* L. subsp. *molinerii* (Balbis)** Syme

***!!T. pratense* L. subsp. *pratense***

*T. pallidum* Waldst. et Kit. - CAR

*T. lappaceum* L. - CAR

*T. rubens* L. - CAR

***!!T. angustifolium* L. subsp. *angustifolium*** - SAVI; CAR

*T. ochroleucum* Huds. - CAR; BAR

*T. echinatum* M.-Bieb. - BAR

*T. maritimum* Huds. - PUCC; CAR [lists doubtfully the record of PUCC]; BAR

*T. squarrosum* L. - BAR [sub *T. dipsaceum* Thuill.]

***!T. subterraneum* L.** - SAVI; CAR

*Dorycnium* Miller

***!!D. hirsutum* (L.) Ser.** - SAVI [sub *Lotus hirsutus* L.]; SAVI II [*idem*]; CAR; MT

*D. rectum* (L.) Ser. - SAVI [sub *Lotus rectus*]

***!!D. pentaphyllum* Scop. subsp. *herbaceum* (Vill.) Rouy** - SAVI [sub *D. parviflorum* Savi]; CAR [sub *D. herbaceum* Vill.]

*Lotus* L.

*L. subbiflorus* Lag. - BAR [sub *L. hispidus* Desf.]

*L. angustissimus* L. - CAR

***!!L. corniculatus* L.** - POS

*L. edulis* L. - CAR

***!!L. ornithopodioides* L.**

*Tetragonolobus* Scop.

*T. maritimus* (L.) Roth subsp. *siliquosus* (L.) Roth - BAR [sub *T. siliquosus* Roth]

*Hymenocarpus* Savi

*H. circinnatus* (L.) Savi - SAVI; SAVI II [sub *Medicago circinnata* L.]

*Anthyllis* L.

***!!A. vulneraria* L. subsp. *praepropera* (Kerner) Bornm.** - SAVI

***!!A. tetraphylla* L.** - SAVI; SAVI II; PUCC; CAR; BAR

*Ornithopus* L.

!*O. compressus* L. - SAVI II; CAR

*O. perpusillus* L. - PUCC; CAR

*O. pinnatus* (Miller) Druce - PUCC [sub *Astrolabium ebracteatum* DC.]; CAR [sub *O. ebracteatus* Brot.]; FIORI 1923-1929

*Coronilla* L.

!!*C. emerus* L. subsp. *emerus* - SAVI; BAR

!!*C. varia* L.

*Hippocrepis* L.

!!*H. comosa* L. - SAVI

*Scorpiurus* L.

!!*S. muricatus* L. - POS [sub *S. muricatus* var. *subvillosa* (L.)]

*S. vermiculatus* L. - SAVI; CAR

*Hedysarum* L.

![*H. coronarium* L.] cultivated and sometimes escaped

*Onobrychis* L.

!*O. viciifolia* Scop.

### OXALIDACEAE

*Oxalis* L.

!*O. corniculata* L.

!!*O. acetosella* L. - SAVI; PUCC; CAR; CESCA, 1961

!![*O. violacea* L.] Cs

### GERANIACEAE

*Geranium* L.

!!*G. sanguineum* L. - CAR

!*G. nodosum* L. - SAVI; CAR

!!*G. rotundifolium* L. - PUCC; MF

!!*G. molle* L.

!!*G. pusillum* L.

*G. columbinum* L. - CAR

!!*G. dissectum* L.

!!*G. lucidum* L. - CAR

!!*G. robertianum* L. - SAVI; POS

!!*G. purpureum* Vill.

*Erodium* L' Her.

!!*E. malachoides* (L.) L' Her. - SAVI [sub *Geranium malachoides* L.]; CAR

*E. botrys* (Cav.) Bertol. - BAR

*E. ciconium* (L.) L'Her. - SAVI [sub *Geranium ciconium* L.]; CAR

*E. moschatum* (L.) L'Her. - CAR

*E. cicutarium* (L.) L'Her. - CAR

!!*E. acaule* (L.) Becherer et Th.

### LINACEAE

*Linum* L.

!*L. bienne* Miller

!![*L. usitatissimum* L.] Cs - CP I; PC

!!*L. tenuifolium* L. - SAVI; PUCC; CAR

!*L. trigynum* L. - SAVI II [sub *L. gallicum* L.]; BAR [*idem*]

*L. strictum* L. subsp. *corymbulosum* (Reichenb.) Rouy - SAVI; PUCC; CAR

!*L. catharticum* L. subsp. *catharticum* - SAVI; PUCC; CAR

*Radiola* Hill

!!*R. linoides* Roth - SAVI [sub *Linum Radiola* L.]; SAVI II [sub *R. millegrana* Smith]; PUCC [sub *R. millegrana* Pers.]; CAR

### EUPHORBIACEAE

*Mercurialis* L.

!!*M. annua* L.

!!*M. perennis* L. - PUCC; CAR; CAR I; BAR

*Euphorbia* L.

[*E. humifusa* Willd.] Cs - BAR; VCR

*E. chamaesyce* L. subsp. *chamaesyce* - BAR

[*E. maculata* L.] Cs - BAR; VCR

[*E. prostrata* Aiton] Cs - BAR; VCR

!*E. dulcis* L. - CAR

!!*E. spinosa* L. subsp. *spinosa* - SAVI; BS; CAR

!!*E. helioscopia* L.

*E. lathyris* L. - PUCC; CAR

!!*E. exigua* L. - POS

!*E. falcata* L.

!!*E. peplus* L.

!!*E. cyparissias* L.

!!*E. amygdaloidea* L. - PUCC; CAR

!!*E. characias* L. - SAVI; BS; PUCC; CAR; MF

[*E. thymifolia* Burm.] An - VCR

*RUTACEAE**Ruta* L.**!R. angustifolia** Pers. - CAR**!!R. chaleensis** L. - CAR [sub *R. bracteosa* DC.]; POS; CP I; PC; DPT  
*R. graveolens* L. - SAVI*SIMAROUBACEAE**Ailanthus* Desf.**![A. glandulosa** Desf.] Cs - MT; VCR*POLYGALACEAE**Polygala* L.**!P. chamaebuxus** L. - CAR I; BAR*P. monspeliacaca* L. - BAR**!!P. flavesrens** DC. - SAVI II; CAR**!!P. nicaeensis** Risso subsp. *mediterranea* Chodat - CAR**!!P. vulgaris** L. - SAVI; SAVI II [sub *P. amara* L.]; CAR [etiam sub *P. amara* cf. CAR II]; CAR II{*P. amara* L.} - CAR, the references to this species have to be attributed to *P. vulgaris*, cf. CAR II; POS*ANACARDIACEAE**Cotinus* Miller**![C. coggygria** Scop.] Cs*Pistacia* L.**!!P. terebinthus** L. - PUCC; CAR[*P. vera* L.] Cs - VCR**!!P. lentiscus** L. - SAVI; BS; CAR; POS; MF*HIPPOCASTANACEAE**Aesculus* L.**!![A. hippocastanum** L.] Cs, very rarely and only young plants - PC*ACERACEAE**Acer* L.**!A. campestre** L.

*AQUIFOLIACEAE**Ilex* L.***I. aquifolium* L.** - SAVI; CAR; CESCA, 1961; MT; MF; GELLINI, 1979*CELASTRACEAE**Euonymus* L.***E. europaeus* L.** - MT*BUXACEAE**Buxus* L.***B. sempervirens* L.***RHAMNACEAE**Ziziphus* Miller**![*Z. jujuba* Miller]** Cult and sometimes escaped. - PUCC [sub *Z. vulgaris* Willd.]*Rhamnus* L.**!!*R. alaternus* L.** - SAVI; PUCC; CAR**{*R. catharticus* L.}** - SAVI; According to PUCC the presence of this species is very doubtful and also all the localities listed by CAR come out from bibliographical references not supported by herbarium specimens.*Frangula* Miller**!!*F. alnus* Miller** - CAR [sub *Rhamnus frangula* L.]; MT; TM*VITACEAE**Vitis* L.**![*V. vinifera* L.]** Widely cultivated and sometimes escaped*Parthenocissus* Planchon**![*P. quinquefolia* (L.) Planchon]** Cultivated and sometimes escaped*TILIACEAE**Tilia* L.**!![*T. tomentosa* Moench]** Cultivated - PC*MALVACEAE**Malva* L.

!!*M. sylvestris* L. - CP I; CP II; PC

*M. nicaeensis* All. - CAR

*M. neglecta* Wallr. - CAR [sub *M. rotundifolia* L.]

*Lavatera* L.

!!*L. punctata* All.

*Althaea* L.

!!*A. hirsuta* L. - SAVI; PUCC; CAR; POS

*Abutilon* Miller

![*A. theophrasti* Medicus] - Cs

#### THYMELAEACEAE

*Daphne* L.

!!*D. gnidium* L. - SAVI; BS; PUCC; CAR

!!*D. laureola* L. - SAVI; CAR

*Thymelaea* Miller

!*T. passerina* (L.) Coss. et Germ.

#### VIOLACEAE

*Viola* L.

!!*V. odorata* L. - CAR

!!*V. reichenbachiana* Jordan ex Boreau - BAR [sub *V. sylvestris* Lam.]

!!*V. hirta* L. - CAR

!!*V. canina* L. - CAR

!!*Viola tricolor* L. subsp. *subalpina* Gaudin

#### CISTACEAE

*Cistus* L.

!!*C. incanus* L. - SAVI; BS; CAR; MT

!!*C. monspeliensis* L. - SAVI; BS; PUCC; CAR; POS; CP I; DPT

!!*C. salvifolius* L. x *C. monspeliensis* L.

!!*C. salvifolius* L. - SAVI; BS; CAR; DPT; MT

*Tuberaria* (Dunal) Spach

!!*T. lignosa* (Sweet) Samp. - SAVI II [sub *Cistus tuberaria* L.]; PUCC [sub *Helianthemum tuberaria* Willd.]; CAR [*idem*]

*Helianthemum* Miller

!!*H. nummularium* (L.) Miller subsp. *obscurum* (Celak.) Holub - SAVI [sub *Cistus barbatus* DC. et *C. helianthemum* L.]; CAR [sub *H. vulgare* Gaertn. var. *tomentosum* Gr. et Godr.]

!!*H. apenninum* (L.) Miller - PUCC [sub *H. polifolium* Hook.]; CAR [*idem*]

!!*H. oelandicum* (L.) DC. subsp. *italicum* (L.) Font-Quer et Rothm. - PUCC  
[sub *H. alpestre* Coll.]; CAR [sub *H. italicum* L.]; BAR [*idem*]

*Fumana* (Dunal) Spach

!!*F. arabica* (L.) Spach - CAR [sub *Helianthemum savii* Bertol.]; BAR [sub  
*Helianthemum arabicum* Pers.]

!!*F. procumbens* (Dunal) Gren. et Godr. - SAVI [sub *Cistus fumana* L.];  
PUCC [sub *Helianthemum fumana* Willd.]; CAR [*idem*]

*F. ericoides* (Cav.) Gand. - SAVI II [sub *Cistus fumana* var. *ericoides*]

*F. thymifolia* (L.) Spach ex Webb - CAR [sub *Helianthemum glutinosum*  
Pers.]

### CUCURBITACEAE

*Bryonia* L.

!*B. dioica* Jacq. - SAVI; CAR

### LYTHRACEAE

*Lythrum* L.

!*L. salicaria* L.

*L. borysthenicum* (Schrink) Litv. - CAR [sub *Peplis erecta* Req. in Benth.]

*L. portula* (L.) D.A. Webb - SAVI II [sub *Peplis portula* L.]; CAR [*idem*]

### TRAPACEAE

*Trapa* L.

*T. natans* L. - BS

### MYRTACEAE

*Myrtus* L.

!!*M. communis* L. - SAVI; BS; CESCA, 1961; POS; MT; CP I; PC; MF

*Eucalyptus* L'Her.

!![*E. camaldulensis* Dehnh.] Cultivated - CP I; PC

*Punica* L.

!![*P. granatum* L.] Cs (observed only in cultivation) - PC; VCR

### ONAGRACEAE

*Circaeaa* L.

!*C. lutetiana* L. - PUCC

*Oenothera* L.

**!O. biennis** L.

*Epilobium* L.

*E. dodonaei* Vill. - BAR [sub *E. angustissimus* Weber]

*E. montanum* L. - SAVI

**!!E. lanceolatum** Seb. et Mauri - CAR II; BAR

*E. obscurum* Schreber - CAR [sub *E. virgatum* Fries]; BAR [*idem*]

#### HALORAGACEAE

*Myriophyllum* L.

*M. verticillatum* L. - CAR

*M. spicatum* L. - CAR

#### CORNACEAE

*Cornus* L.

**!!C. sanguinea** L. - TM

**!C. mas** L. - SAVI; PUCC; CAR

#### ARALIACEAE

*Hedera* L.

**!!H. helix** L. subsp. *helix* - MT; CP I; PC

#### UMBELLIFERAE

*Hydrocotyle* L.

**!!H. ranunculoides** L. fil. - CAR [sub *H. natans* Cyr.]; TOMEI et Al., 1985

**!!H. vulgaris** L. - SAVI; CAR; TOMEI et Al., 1985

*Sanicula* L.

**!S. europaea** L. - SAVI; PUCC; CAR

*Scandix* L.

*S. australis* L. - POS

**!S. pecten-veneris** L.

*Bifora* L.

*B. testiculata* (L.) Roth - PUCC; CAR [sub *B. flosculosa* M - Bieb.]

*Smyrnium* L.

**!S. olusatrum** L. - CAR

*Pimpinella* L.

**!!P. peregrina** L.

*P. major* (L.) Huds. - CAR [sub *P. saxifraga* L. var. *nigra* Spreng.]; BAR [sub *P. saxifraga* L. var. *major* Wallr.]

*Aegopodium* L.

!!*A. podagraria* L.

*Berula* Koch

*B. erecta* (Hudson) Coville - SAVI II [sub *Sium angustifolium* L.]; BAR [*idem*]

*Seseli* L.

*S. tortuosum* L. - CAR; BAR

*Oenanthe* L.

!!*O. pimpinelloides* L. - CAR; CP II

*Foeniculum* Miller

!!*F. vulgare* Miller subsp. *vulgare* - POS; CP I; CP II; PC

*Bupleurum* L.

!!*B. lancifolium* Hornem.

*B. baldense* Turra subsp. *baldense* - PUCC [sub *B. aristatum* Bartl.]; CAR [*idem*]

*Trinia* L.

*T. glauca* (L.) Dum. subsp. *glauca* - PUCC [sub *T. vulgaris* DC.]; CAR [*idem*]

*Apium* L.

*A. graveolens* L. - BAR

!!*A. nodiflorum* (L.) Lag. - CP I; CP II; PC

[*Apium leptophyllum* (Pers.) F. Müller] Ac - VCR

*Petroselinum* Hill

!![*P. sativum* Hoffm.] Cs Cultivated and very rarely escaped - CAR; BAR; PC [sub *P. hortense* Hoffm.]

*Sison* L.

*S. amomum* L. - PUCC; CAR

*Angelica* L.

!!*A. sylvestris* L. - SAVI; CAR

*Peucedanum* L.

!*P. cervaria* (L.) Lapeyr. - SAVI [sub *Selimum cervaria* Savi]; CAR

*Tordylium* L.

!!*T. apulum* L. - PUCC; CAR; POS; MF

*Torilis* Adanson

!*T. arvensis* (Hudson) Link - PUCC [sub *T. infesta* Smith]

*Orlaya* Hoffm.

!!*O. grandiflora* (L.) Hoffm. - PUCC [sub *Caucalis grandiflora* L.]; CAR;  
POS [sub *Daucus grandiflorus* Scop.]

!!*O. kochii* Heyw.

*Daucus* L.

!!*D. broteri* Ten. - CAR [sub *D. michelii* Caruel]

!!*D. carota* L. subsp. *carota* - CP II

## ERICACEAE

*Erica* L.

!!*E. arborea* L. - SAVI; CAR; GIORDANO, 1953; CESCA, 1961; MF; MT

!!*E. scoparia* L. - BS; GIORDANO, 1953; CESCA, 1961; MT; TM; MF

*Calluna* Salisb.

!!*C. vulgaris* (L.) Hull - SAVI [sub *Erica vulgaris* L.]; TM

*Arbutus* L.

!!*A. unedo* L. - SAVI; CAR; TM; MF; MT; GELLINI, 1979

*Vaccinium* L.

!!*V. myrtillus* L. - BAR

## PRIMULACEAE

*Primula* L.

!!*P. vulgaris* Hudson - CAR; BAR; PC [sub *P. acaulis* Hills]

*Cyclamen* L.

!!*C. hederifolium* Aiton - POS [sub *C. neapolitanum* Ten.]; MF  
[*C. purpurascens* Miller] - SAVI [sub *C. europaeum* L.]; PC [*idem*]; According to PIGNATTI, 1982 this species does not live in Tuscany.

!!*C. repandum* Sibth. et Sm. - PUCC [sub *C. vernum* Reich.]; CAR

*Lysimachia* L.

!*L. nemorum* L. - BAR

!*L. nummularia* L.

!*L. vulgaris* L.

*L. punctata* L. - PUCC; CAR

*Asterolinon* Hoffmg. et Link

!*A. linum-stellatum* (L.) Duby in DC. - SAVI [sub *Lisimachia linum-stellatum* L.]; SAVI II [*idem*]; PUCC [*idem*]; CAR [sub *A. stellatum*]

*Anagallis* L.

*A. minima* (L.) Krause - SAVI II [sub *Centunculus minimus* L.]; PUCC [*idem*]; CAR [*idem*]

!!*A. arvensis* L. - SAVI [sub *A. monelli* L.]; PUCC [sub *A. coerulea* Schrab.];

## POS.

{*A. monelli* L.} - SAVI; this record refers to *A. arvensis* var. *coerulea*, cf. also CAR

## PLUMAGINACEAE

*Armeria* Willd.

*A. plantaginea* (All.) Willd. - SAVI [sub *Statice armeria* L.]; CAR [doubtfully listed fide SAVI]

## OLEACEAE

*Fraxinus* L.

!!*F. ornus* L. - CAR; CESCA, 1961; TM; MF

*Ligustrum* L.

!!*L. vulgare* L.

*Olea* L.

!![*O. europaea* L. var. *europaea*] Cultivated - MT; CP I; PC; MF

!!*O. europaea* L. var. *sylvestris* Brot. - SAVI

*Phyllirea* L.

!!*P. angustifolia* L. - BS [etiam sum *P. media* L.]; PUCC [*idem*]: CAR [sub *P. vulgaris* Caruel]

!*P. latifolia* L. - PUCC; CAR [sub *P. vulgaris* Caruel]; DPT; MF

## GENTIANACEAE

*Blackstonia* Huds.

!!*B. perfoliata* (L.) Huds. subsp. *perfoliata* - POS [sub *Chlora perfoliata* L.]

*Centaurium* Hill

!!*C. erythraea* Rafn subsp. *erythraea* - CP I

!!*C. pulchellum* (Swartz) Druce

*C. maritimum* (L.) Fritsch - SAVI [sub *Gentiana maritima* L.]; CAR [sub *Erythraea maritima* Pers.]

*Gentiana* L.

!!*G. asclepiadea* L. - BAR; CP I; PC

!!*G. pneumonanthe* L. - TM; TOMEI and GARBARI, 1979; AMADEI et Al., 1982; TOMEI et Al., 1985; GARBARI, 1988

## APOCYNACEAE

*Nerium* L.

![*N. oleander* L.] Cultivated and rarely excaped

*Vinca* L.

!!*V. minor* L. - SAVI; PUCC; CAR

*V. major* L. - SAVI; CAR

!*V. difformis* Pourret

#### *ASCLEPIADACEAE*

*Vincetoxicum* N.M. Wolf.

{*V. nigrum* (L.) Moench} - SAVI [sub *Asclepias nigra* L.] species excludenda, cf. sub *V. hirundinaria*

!!*V. hirundinaria* Medicus subsp. *hirundinaria* - SAVI [sub *Asclepias nigra* L., cf. also CAR]; CAR [sub *V. officinale* Moench]

#### *RUBIACEAE*

*Sherardia* L.

!!*S. arvensis* L. - CAR

*Asperula* L.

!!*A. aristata* L. subsp. *scabra* (Presl) Nym. - CAR [sub *A. longiflora* Waldst. et Kit.]

!*A. cynanchica* L. - SAVI; PUCC; CAR

*A. laevigata* L. - SAVI; SAVI II; CAR; BAR

*Galium* L.

!*G. rotundifolium* L. - PUCC; CAR; BAR

!*G. palustre* L. - CAR

!*G. verum* L. subsp. *verum* - SAVI

!!*G. album* Miller

!!*G. corrudifolium* L.

!!*G. lucidum* All. - BAR; POS [sub *G. mollugo* var. *lucidum*]

!!*G. spurium* L.

!!*G. aparine* L.

*G. parisiense* L. - CAR [sub *G. parisiense* L. var. *lejocarpum* Tausch]

*Cruciata* Miller

*C. laevipes* Opiz - SAVI [sub *Valantia cruciata* L.]; PUCC; CAR [sub *Galium cruciata* Scop.]

!*C. glabra* (L.) Ehrend. - PUCC [sub *G. vernum* Scop.]; CAR [*idem*]; CESCA, 1961 [*idem*]

*Rubia* L.

!!*R. peregrina* L.

{*R. tinctorum* L.} - SAVI; MF; VCR; listed by several authors but none specimen is preserved in PI, FI, LU; it may be once upon a time culti-

vated and sometimes excaped.

### *CONVOLVULACEAE*

*Calystegia* R. Br.

!!*C. sepium* (L.) R. Br. - CP I

*Convolvulus* L.

!!*C. cantabrica* L. - SAVI; CAR; POS

!*C. arvensis* L.

!!*C. althaeoides* L.

*Cuscuta* L.

!!*C. epithymum* L. - SAVI

### *BORAGINACEAE*

*Buglossoides* Moench

!*B. purpureocoerulea* (L.) Johnston - SAVI [sub *Lithospermum purpureocoeruleum* L.]; CAR [*idem*]

*Cerinthe* L.

!!*C. major* L.

*Echium* L.

!!*E. italicum* L.

!*E. vulgare* L. - POS [sub *E. vulgare* var. *pustulatum* S. et S.]

!*E. plantagineum* L.

*Pulmonaria* L.

{*P. officinalis* L.} - PUCC; CAR. Species a tota flora Etruriae excludenda, cf. PIGNATTI, 1982

!!*P. vallarsae* Kerner

*Symphytum* L.

*S. officinale* L. - SAVI; CAR

!!*S. tuberosum* L. subsp. *tuberousum* - SAVI; CAR; PC

*Anchusa* L.

!*A. hybrida* Ten.

!*A. italicica* Retz.

*Borago* L.

!!*B. officinalis* L. - PUCC; CP I; CP II; PC

*Myosotis* L.

!*M. arvensis* (L.) Hill - BAR [sub *M. intermedia* Link ex Schulz]

*M. ramosissima* Rochel in Schultes - CAR [sub *M. hispida* Schlecht]

**!!*M. scorpioides* L.**

*Cynoglossum* L.

**!!*C. creticum* Miller**

*VERBENACEAE*

*Verbena* L.

**!!*V. officinalis* L. - CP I; PC**

*LABIATAE*

*Ajuga* L.

**!A. reptans** L.

*A. iva* (L.) Schreber - BAR

**!!A. chamaepitys** (L.) Schreber

*Teucrium* L.

*T. botrys* L. - PUCC; CAR

**!!T. chamaedrys** L. - CP I; PC

**!T. flavum** L. - SAVI; SAVI II; PUCC; CAR

**!!T. montanum** L. - PUCC; CAR

**!!T. polium** L. subsp. *capitatum* (L.) Arcang. - SAVI; PUCC; CAR; POS

*Scutellaria* L.

*S. columnae* All. - CAR

*Marrubium* L.

*M. vulgare* L. - SAVI; CAR

*Sideritis* L.

*S. montana* L. - CAR; POS

**!!S. romana** L. - SAVI

*Melittis* L.

**!!*M. melissophyllum* L. - SAVI; PUCC; CAR**

*Lamium* L.

**!L. maculatum** L. - MF

**!L. purpureum** L.

**!L. amplexicaule** L.

*Lamiastrum* Fabr.

**!!L. galeobdolon** (L.) Ehrend. et Polatschek - CAR [sub *Lamium galeobdolon* Crantz]; BAR [*idem*]

*Ballota* L.

**!!*B. nigra* L. subsp. *uncinata* (Fiori et Beg.) Patzak**

*Stachys* L.

!!*S. officinalis* (L.) Trevisan subsp. *officinalis* - SAVI [sub *Betonica officinalis* L.]

!!*S. germanica* L. - SAVI; CAR

!!*S. recta* L. subsp. *recta* - CAR

!*S. annua* (L.) L.

!*S. arvensis* (L.) L. - SAVI II; CAR; POS

*Nepeta* L.

{*N. nepetella* L.} - MF; cf. sub *Calamintha nepeta*

*Glechoma* L.

!!*G. hederacea* L. - CAR [sub *Nepeta glechoma* Benth.]

*Prunella* L.

!!*P. laciniata* (L.) L. - SAVI

!*P. vulgaris* L.

*Melissa* L.

!!*M. romana* Miller - CP I; PC [sub *M. officinalis* subsp. *altissima* (Sibth. et Smith) Arc.]; CORSI et Al., 1979

*Satureja* L.

!!*S. montana* L. subsp. *montana* - SAVI; BS; PUCC; CAR; POS

*S. hortensis* L. - SAVI; CAR

*Micromeria* Bentham

!!*M. juliana* (L.) Bentham - SAVI [sub *Satureja juliana* L.]; SAVI II [*idem*]; BS [*idem*]; CAR; POS [*idem*]

!*M. graeca* (L.) Bentham - POS [sub *Satureja graeca* L.]

*Calamintha* Miller

!*C. sylvatica* Bromf. - PUCC [sub *C. officinalis* Moench]; CAR [sub *C. montana* Lam.]

!!*C. nepeta* (L.) Savi subsp. *nepeta* - CP I; CP II; PC; MF [sub *Nepeta nepetella*]

*Acinos* Miller

*A. arvensis* (Lam.) Dandy - CAR [sub *Calamintha arvensis*]

*Clinopodium* L.

!!*C. vulgare* L. - SAVI

*Origanum* L.

!!*O. vulgare* L. - SAVI; CAR; POS; CP II

*Thymus* L.

!![*T. vulgaris* L.] Cs - not observed in nature: all the records can belong to cultivated or escaped plants; MT; CP I; CP II; PC

***T. serpyllum* L. - SAVI**

***T. longicaulis* Presl**

*Lycopus* L.

*L. exaltatus* L. fil. - PUCC

*Mentha* L.

***M. pulegium* L. - CP II; PC**

***M. aquatica* L.**

***M. suaveolens* Ehrh. - CAR [sub *M. rotundifolia* L.]**

***M. longifolia* (L.) Hudson - PUCC [sub *M. sylvestris* L.]**

***M. spicata* L. - CP I**

*Rosmarinus* L.

***R. officinalis* L. - CP I; PC found always as cultivated plant**

*Lavandula* L.

***L. stoechas* L. - SAVI; SAVI II; PUCC; CAR**

***L. angustifolia* Miller - SAVI [sub *L. spica* L.]; CAR [sub *L. officinalis* Chaix]; CP I**

*Salvia* L.

**!![*S. officinalis* L.] Cultivated - CP I; PC**

***S. pratensis* L. subsp. *haematodes* (L.) Briq.**

***S. verbenaca* L.**

*S. multifida* Sibth. et Sm. - PUCC; CAR

*S. verticillata* L. - CAR I

## *SOLANACEAE*

*Hyoscyamus* L.

*H. niger* L. - CAR

*Physalis* L.

***P. alkekengi* L. - SAVI; PUCC; CAR**

*Solanum* L.

***S. nigrum* L. subsp. *nigrum* - CP I**

***S. dulcamara* L. - SAVI; PC**

**!![*S. tuberosum* L.] Cs (only cultivated) - PC**

**!![*S. melongena* L.] - only cultivated - CP I**

*Lycopersicon* Miller

**!![*L. esculentum* Miller] Cs - PC**

## *SCROPHULARIACEAE*

*Verbascum* L.

!!*V. thapsus* L. subsp. *thapsus* - PUCC; CAR; CP I; PC

!!*V. thapsus* L. subsp. *crassifolium* (Lam. et DC.) Murb. - BAR [sub *V. montanum* Schrad.]

!*V. sinuatum* L.

!*V. blattaria* L.

*V. phoeniceum* L. - BAR

*Scrophularia* L.

!*S. peregrina* L. - CAR

!*S. nodosa* L. - CAR

!*S. auriculata* L.

!!*S. canina* L. - SAVI; PUCC; CAR; POS

*Antirrhinum* L.

!!*A. latifolium* Miller - CAR; BAR

!*A. majus* L. - SAVI; PUCC

*Misopates* Rafin

!!*M. orontium* (L.) Rafin.

*Linaria* Miller

!!*L. pelisseriana* (L.) Miller - PUCC; CAR

!!*L. vulgaris* Miller

*Cymbalaria* Hill

!*C. muralis* Gaertn. - MT [sub *Linaria cymbalaria* Miller]

*Kickxia* Dumort

!!*K. elatine* (L.) Dumort.

*K. spuria* (L.) Dumort. - PUCC [sub *Linaria spuria* Mill.]

*Digitalis* L.

!*D. lutea* L. - SAVI

*Veronica* L.

!*V. arvensis* L.

*V. acinifolia* L. - CAR

!!*V. agrestis* L. - CAR [sub *V. pulchella* Bart.]

![*V. persica* Poiret] An - VCR

!!*V. cymbalaria* Bodard - PUCC; CAR

!!*V. chamaedrys* L. - SAVI; CAR

*V. montana* L. - SAVI II; CAR

!*V. urticifolia* Jacq. - CAR

!!*V. officinalis* L. - CAR

*V. anagalloides* Guss. - CAR [sub *V. anagallis-aquatica* L. and *V. anagalloides* Guss.]; BAR

!*V. beccabunga* L.

*Euphrasia* L.

!!*E. officinalis* L. - SAVI; CAR

*Odontites* Ludwig

!!*O. lutea* (L.) Clairv.

!!*O. rubra* (Baumg.) Opiz

*Parentucellia* Viv.

!!*P. latifolia* (L.) Caruel - CAR [sub *Euphragia latifolia* Gris.]

#### OROBANCHACEAE

*Orobanche* L.

*O. ramosa* L. - CAR [sub *Phelipaea ramosa* C.A. Mey.]

*O. alba* Stephan ex Willd. - CAR [sub *O. epithymum* DC.]

*O. loricata* Reichenb. - CAR

*O. minor* Sm. in Sowerby - CAR

!!*O. pubescens* D'Urv.

!!*O. gracilis* Sm. - BAR

#### GLOBULARIACEAE

*Globularia* L.

!!*G. punctata* Lapeyr. - PUCC [sub *G. vulgaris* L.]; CAR [*idem*]

#### LENTIBULARIACEAE

*Utricularia* L.

!!*U. minor* L. - CAR; BAR; TM

#### PLANTAGINACEAE

*Plantago* L.

!!*P. major* L. s.l. - CP I; PC

!!*P. coronopus* L. subsp. *coronopus*

!!*P. lanceolata* L. - CP I

*P. bellardii* All. - PUCC; CAR

!!*P. afra* L. - CAR I [sub *P. psyllium* L.]; BAR [*idem*]

#### CAPRIFOLIACEAE

*Viburnum* L.

!!*V. tinus* L. - SAVI; CAR; MT

*Sambucus* L.

***S. ebulus* L.****!!*S. nigra* L.** - MT; CP I; PC*Lonicera* L.**!!*L. implexa* Aiton** - CAR*L. caprifolium* L. - SAVI**!!*L. etrusca* G. Santi****!!*L. periclymenum* L.** - SAVI; PUCC; CAR*ADOXACEAE**Adoxa* L.**!*A. moschatellina* L.** - PUCC; CAR*VALERIANACEAE**Valerianella* Miller*V. puberula* (Bertol.) DC. - BAR [sub *V. microcarpa* Loisel. var. *puberula* DC.] Arc.]*V. rimosa* Bast in Desv. - CAR [sub *V. auricula* DC.]**!!*V. locusta* (L.) Laterrade** - CAR [sub *V. olitoria* Poll.]; CP II*V. carinata* Lois. - CAR*Centranthus* DC.**!!*C. ruber* (L.) DC.** in Lam.*DIPSACACEAE**Cephalaria* Schrader[*C. syriaca* (L.) Schrad.] Ac - BAR; VCR**!!*C. transsylvanica* (L.) Schrader***Dipsacus* L.**!!*D. fullonum* L.***Knautia* L.**!!*K. drymeia* Heuffel** subsp. *centrifrons* (Borbas) Ehrend.**!!*K. arvensis* (L.) Coulter** - SAVI [sub *Scabiosa arvensis* L.]; CAR*Scabiosa* L.**!!*S. columbaria* L.** - CAR**!!*S. uniseta* Savi** - SAVI*Pterocephalus* Vaill.**!![*P. plumosus* (L.) Coulter]** Ac - BARSALI, 1909 [sub *Scabiosa plumosa* Sibth. et Sm.]; SAVELLI, 1915 [*idem*]; VCR [*idem*]

*CAMPANULACEAE**Legousia* Durand!!*L. speculum-veneris* (L.) Chaix!!*L. falcata* (Ten.) Fritsch - SAVI [sub *Campanula hybrida*, cf. CAR]; CAR  
[sub *Specularia falcata* A. DC.]*L. hybrida* (L.) Delarbre - CAR [sub *Specularia hybrida* A. DC]*Trachelium* L.![*T. coeruleum* L.] Cs - PUCC; CAR; VCR*Campanula* L.!!*C. rapunculus* L. - SAVI; CP II!*C. persicifolia* L. - CAR I; BAR!!*C. medium* L. - SAVI; CAR*C. cervicaria* L. - CAR!!*C. erinus* L. - CAR; POS!*C. trachelium* L. - CAR*Phyteuma* L.{*P. michelii* All.} - CAR!*P. scorzonerifolium* Vill. - PUCC; CAR [sub *P. michelii* All.]*Jasione* L.!!*J. montana* L. - PUCC*Laurentia* Adanson!!*L. gasparrinii* (Tineo) Strobl - SAVI II [sub *Lobelia laurentia* L.]; CAR  
[sub *L. michelii* DC.]*COMPOSITAE**Eupatorium* L.!!*E. cannabinum* L.*Solidago* L.!!*S. virgaurea* L. subsp. *virgaurea*![*S. gigantea* Aiton] Cs*Aster* L.![*A. novi-belgii* L.] Cs[*A. salignus* Willd.] Cs - BAR![*A. squamatus* (Sprengel) Hieron] An - VCR!!*A. sedifolius* L. - CAR [sub *A. acris* L.]; MONTI et Al., 1978*Erigeron* L.![*E. karvinskianus* DC.] Cs!*E. acer* L. subsp. *acer* - SAVI [sub *Solidago acris* (L.) Savi]; CAR

*Bellis* L.

*B. annua* L. - SAVI; CAR

**!B. perennis** L.

**!!B. sylvestris** Cyr. - SAVI II [sub *B. s.* Willd.]; BS; CAR; POS

*Micropus* L.

*M. erectus* L. subsp. *erectus* - CAR I; BAR

*Evax* Gaertner

*E. pygmaea* (L.) Brot. - BAR

*Oglifa* Cass.

*O. minima* (Sm.) Reichenb. - BAR [sub *Filago minima* Fries]

*Antennaria* Gaertner

*A. dioica* (L.) Gaertner - CAR

*Gnaphalium* L.

*G. sylvaticum* L. - SAVI; CAR

*G. luteo-album* L. - CAR

*Phagnalon* Cass.

**!P. sordidum** (L.) Reichenb. - BAR

*Helichrysum* Miller

**!!H. italicum** (Roth) G. Don subsp. *italicum* - CAR [sub *H. angustifolium* DC.]; POS; MF

*H. stoechas* (L.) Moench - SAVI [sub *Gnaphalium stoechas* L.]

*Inula* L.

*I. salicina* L. - CAR

**!!I. spiraeifolia** L. - CAR [sub *I. squarrosa* L.]

**!I. hirta** L. - BAR

*I. montana* L. - SAVI; CAR

**!I. conyzoides** DC.

**!!I. viscosa** (L.) Aiton - MT

[*I. germanica* L.] Ac - SAVI; VCR. Known only from SAVI's record, doubtful or extinct.

*Pulicaria* Gaertn.

*P. sicula* Mor. - CAR

**!!P. dysenterica** (L.) Bernh.

*P. odora* (L.) Reichenb. - CAR

*Pallenis* Cass.

**!!P. spinosa** (L.) Cass. - CAR [sub *Asteriscus spinosus* Gren. et Godr.]

*Bidens* L.

[*B. frondosa* L.] Cs - CAR; VCR

*Helianthus* L.

![*H. tuberosus* L.] Cs

*Xanthium* L.

![*X. spinosum* L.] An - CAR; VCR

*Santolina* L.

!!*S. marchii* Arrigoni - SAVI [sub *S. chamaecyparissus* L.]; CP I  
{*S. chamaecyparissus* L.} - SAVI (cf. sub *S. marchii*)

*Anthemis* L.

!!*A. arvensis* L. subsp. *arvensis* - CAR

*A. altissima* L. - CAR [sub *A. cota* L.]

!*A. tinctoria* L. - SAVI; CAR

*Achillea* L.

*A. ligustica* All. - CAR

!*A. millefolium* L. - SAVI

*Matricaria* L.

!!*M. chamomilla* L. - CP I; PC [sub *Chamomilla recutita* (L.) Rauschert]

*Chrysanthemum* L.

!*C. segetum* L. - CAR

*Coleostephus* Cass.

!!*C. myconis* (L.) Cass.

*Leucanthemum* Miller

!*L. vulgare* Lam. - SAVI [sub *Matricaria leucanthemum*]; CAR

*L. ceratophylloides* (All.) Nym. subsp. *ceratophylloides* - CAR [sub *L. monitanum* DC.]

*Tanacetum* L.

!!*T. parthenium* (L.) Sch-Bip. - CAR [sub *Pyrethrum parthenium* Smith]; CP I; CP II [sub *Tanacetum parthenium* (L.) Schulz Bip.]

*T. corymbosum* (L.) Sch-Bip. - SAVI [sub *Matricaria corymbosa*]; PUCC [sub *Pyrethrum achilleae* DC.]; CAR [*idem*]

*T. vulgare* L. - SAVI II; SAVI; CAR

*Artemisia* L.

!!*A. vulgaris* L. - CP I

![*A. verlotorum* Lamotte] Cs - VCR

[*A. abrotanum* L.] Cs - SAVI; VCR

!!*A. alba* Turra - POS [etiam sub *A. camphorata* Vill.]

*Tussilago* L.

!!*T. farfara* L. - PUCC; CP I

*Petasites* Miller

!!*P. hybridus* (L.) P. Gaertn., B. Meyer et Scherb. - CAR [sub *P. officinalis* Moench]; PC

!!*P. fragrans* (Vill.) C. Presl - CP I

*Senecio* L.

!*S. nemorensis* L. - PUCC; CAR

!!*S. erraticus* Bertol. - BS; CP II

!!*S. vulgaris* L.

*Calendula* L.

![*C. officinalis* L.] Cs - PUCC; CAR; MF

!!*C. arvensis* L. subsp. *arvensis*

*Arctium* L.

!!*A. lappa* L. - PC

*Staehelina* L.

!*S. dubia* L. - PUCC; CAR

*Carduus* L.

!!*C. nutans* L. subsp. *macrolepis* (Peterm.) Kazmi - CAR

!*C. pycnocephalus* L.

*Cirsium* Miller

!!*C. italicum* (Savi) DC.

!!*C. vulgare* (Savi) Ten.

!!*C. arvense* (L.) Scop.

*C. creticum* (Lam.) D'Urv. subsp. *creticum* - BAR [sub *C. polyanthemum* DC.]

*Cynara* L.

!![*C. cardunculus* L. subsp. *scolymus* (L.) Hayek] Cultivated - PC [sub *C. scolymus* L.]

*Galactites* Moench

!!*G. tomentosa* Moench - BS; PUCC; CAR; POS

*Crupina* Pers.

*C. vulgaris* Cass. - PUCC; CAR

!!*C. crupinastrum* (Moris) Vis. - CAR; BAR; POS

*Serratula* L.

!!*S. tinctoria* L. - TM

*Centaurea* L.

*C. paniculata* L. - PUCC

*C. maculosa* Lam. - CAR This species is recorded in Tuscany very doubtfully

!!*C. deusta* Ten. subsp. *deusta* - PUCC [sub *C. splendens* L.]; CAR [sub

*C. alba* var. *deusta* DC.]

**!C. bracteata** Scop.

*C. jacea* L. - SAVI; CAR [sub *C. amara* L.]

*C. calcitrapa* L. - BAR [sub *C. calcitrapa* L. var. *myacantha* DC.]

**!C. cyanus** L.

**!!C. solstitialis** L. subsp. *solstitialis* - BS

*Carthamus* L.

**!C. lanatus** L.

*Xeranthemum* L.

[*X. annuum* L.] Cs - PUCC [sub *X. radiatum* Lam.]; CAR [*idem*]; FIORI, 1923-1929; VCR

*Carlina* L.

**!!C. corymbosa** L. - CAR

**!C. vulgaris** L. - SAVI; CAR

**!C. acaulis** L. - BAR

*Scolymus* L.

**!S. hispanicus** L.

*Cichorium* L.

**!!C. intybus** L. - CP I; CP II; PC

*Lapsana* L.

**!!L. communis** L. - SAVI; CAR; CP II

*Tolpis* Adanson

**!T. umbellata** Bertol. - CAR; BAR

**!T. virgata** (Desf.) Bertol. subsp. *virgata* - SAVI II; CAR

*Hyoseris* L.

**!!H. radiata** L. - SAVI; PUCC; CAR; MF

*Arnoseris* Gaertner

*A. minima* (L.) Schw. et Koerte - CAR [sub *A. pusilla* Gaertn.]

*Rhagadiolus* Scop.

**!!R. stellatus** (L.) Willd. - SAVI [sub *Lapsana stellata* L.]; SAVI II; CAR

*R. edulis* Gaertner - PUCC

*Tragopogon* L.

**!!T. pratensis** L. subsp. *pratensis* - CP II

*T. dubius* Scop. - CAR [sub *T. majus* Jacq.]

**!T. porrifolius** L. - SAVI; CAR

*Hypochoeris* L.

**!!H. radicata** L. - CP II

*H. maculata* L. - CAR

!!*H. achyrophorus* L. - CAR [sub *Seriola aethnensis* L.]; BERUTI, 1961 [sub *Hypochoeris aetnensis* L.]; POS [*idem*]

*Urospermum* Scop.

!!*U. picroides* (L.) Scop. ex F.W. Schmidt - PUCC; CAR; POS

!!*U. dalechampii* (L.) Scop. ex F.W. Schmidt - SAVI [sub *Tragopogon dalechampii* L.]; CP II

*Leontodon* L.

*L. leysseri* (Walbr.) Beck - CAR [sub *Thrinacia hirta* Roth]

!!*L. tuberosus* L. - SAVI [sub *Hyoseris tuberosa* Savi]; CAR [sub *Thrinacia tuberosa* DC.]; BS [*idem*]; CP II

*Picris* L.

!!*P. hieracioides* L. - PC

!!*P. echiooides* L. - CP I; CP II; PC [sub *Helminthia echiooides* (L.) Gaertner]

*Andryala* L.

*A. sinuata* L. - CAR

*Taraxacum* Weber

!!*T. officinale* Weber - PUCC [sub *Leontodon laevigatum* Willd.]; CAR; CP II; PC

*Sonchus* L.

!!*S. asper* (L.) Hill subsp. *asper*

!!*S. oleraceus* L. - CP II

*S. tenuerrimus* L. - PUCC; CAR; POS

*Lactuca* L.

!*L. serriola* L.

*L. saligna* L. - BAR

*L. perennis* L. - PUCC; CAR

*Mycelis* Cass.

!*M. muralis* (L.) Dumort. - PUCC [sub *Prenanthes muralis* L.]; CAR [sub *Lactuca muralis* Fresen.]

*Reichardia* Roth

!!*R. picroides* (L.) Roth - SAVI [sub *Sonchus picroides*]; CAR [sub *Picridium vulgare* Desf.]; POS; CP II

*Aetheorrhiza* Cass.

!*A. bulbosa* (L.) Cass. - PUCC; CAR [sub *Crepis bulbosa* Froel.]; POS [*idem*]

*Crepis* L.

!!*C. leontodontoides* All. - SAVI II; CAR

{*C. tectorum* L.} - SAVI (According to PIGNATTI, 1982 this species doesn't belong to Flora of Tuscany, see also under *C. neglecta*)

- C. foetida* L. - SAVI [sub *Picris foetida* (L.) Savi]; CAR  
*C. biennis* L. - SAVI II  
**!C. zacintha** (L.) Babcock - SAVI [sub *Lapsana zacintha* L.]; PUCC [sub *Zacintha verrucosa* Gaertn.]; CAR [*idem*]  
*C. capillaris* (L.) Wallr. - SAVI [sub *C. virens* L.]  
*C. neglecta* L. - SAVI [sub *C. tectorum* L., fide CAR]  
**!C. versicaria** L.  
*Prenanthes* L.  
**!P. purpurea** L. - CAR  
*Hieracium* L.  
**!!H. pilosella** L. - SAVI; CAR; PC  
*H. auricula* Lam. et DC. - SAVI; CAR  
*H. praealtum* Vill. - BS; CAR  
*H. x brachiatum* Bertol. - PUCC [sub *H. bifurcum* M.-Bieb.]; CAR; CAR I; BAR  
**!!H. sylvaticum** Smith - SAVI [sub *H. murorum* L.]; PUCC  
*H. umbellatum* L. - CAR [sub *H. umbellatum* L. var. *lactaris* Froel.]  
*H. sabaudum* L. - PUCC; CAR  
*H. crinitum* Sibth. et Sm. - CAR; BAR

## MONOCOTYLEDONES

### ALISMATACEAE

- Alisma* L.  
**!A. plantago-aquatica** L.  
*Baldellia* Parl.  
*B. ranunculoides* (L.) Parl. - CAR [sub *Alisma ranunculoides* L.]

### POTAMOGETONACEAE

- Potamogeton* L.  
[*P. gramineus* L.] - SAVI  
**!!P. oblongus** Viv. - TM  
*P. pusillus* L. - SAVI [sub *P. gramineus* L. cf. CAR]; CAR  
**!!P. polygonifolius** Pourret - FICINI *et Al.*, 1980; FICINI *et Al.*, 1981

### NAJADACEAE

- Najas* L.  
[N. gracillima (A. Braun ex Engelm.) Magnus] An - VCR

*LILIACEAE**Asphodelus* L.*A. fistulosus* L. - SAVI; CAR*Anthericum* L.!!*A. liliago* L. - CAR [sub *Phalangium liliago* Schreb.]; BAR [*idem*]*Tulipa* L.

All the species of this genus, with the only exception of *T. sylvestris* have to be considered as aliens, because they results as regression of cultivated and escaped plants.

!!*T. sylvestris* L. - PUCC; CAR[*T. saxatilis* Sieb.] Cs - CAR [sub *T. beccariana* Bicchi]!![*T. maleolens* Reboul] Cs - PUCC; CAR[*T. praecox* Ten.] Cs - PUCC; CAR[*T. gesneriana* L.] Cs - PUCC [sub *T. spathulata* Bertol.]; CAR; VCR![*T. clusiana* DC.] Cs - PUCC; CAR; VCR*Erythronium* L.!!*E. dens-canis* L. - SAVI; SAVI II; CAR; CESCA, 1961*Lilium* L.!!*L. bulbiferum* L. subsp. *croceum* (Chaix) Baker - SAVI; CAR![*L. candidum* L.] Cs. Never seen in wilderness even if once upon a time very diffused - PUCC; CAR*Scilla* L.!![*S. hyacinthoides* L.] Cs - CAR!*S. bifolia* L. - SAVI II; PUCC; CAR!!*S. autumnalis* L. - PUCC; CAR*Endymion* Dumort.!![*E. hispanicum* (Miller) Fourn.] Cs - CAR [sub *E. campanulatum* Parl.];VCR [sub *Hyacinthoides hispanica* (Miller) Rothm.]*Urginea* Steinh.*U. maritima* (L.) Baker - CAR [sub *U. scilla* Steinh.]*Ornithogalum* L.!!*O. cf. umbellatum* L. - CAR; TORNADORE and GARBARI, 1971; 1979{*O. collinum* Guss.} - CAR; BAR [*idem*]!!*O. exscapum* Ten. - CAR!!*O. narbonense* L. - CAR!!*O. pyrenaicum* L. - PUCC; CAR*Hyacinthus* L.!![*H. orientalis* L.] Cs - PUCC; VCR

*Bellevalia* Lapeyr.

!!*B. romana* (L.) Sweet

*Muscaria* Miller

!!*M. atlanticum* Boiss. et Reuter

!!*M. botryoides* (L.) Miller - PUCC; GARBARI, 1966; 1984

*Leopoldia* Parl.

!!*L. comosa* (L.) Parl. - GARBARI, 1966 [sub *Muscaria comosum* Mill.]; GARBARI, 1973

*Allium* L.

!![*A. sativum* L.] Cs - CP I; PC

!!*A. sphaerocephalon* L. - PUCC; CAR; CELA RENZONI and GARBARI, 1971

!*A. vineale* L.

!!*A. ampeloprasum* L. - CP II

!!*A. cirrhosum* Vandelli - SAVI [sub *A. carinatum* L. (fide CAR) and *A. paniculatum* L.]; CAR [sub *A. pulchellum* Don and var. *bulbilliferum*]; CELA RENZONI and GARBARI, 1971 [sub *A. pulchellum* G. Don]

!*A. dentiferum* Webb et Berth. - SAVI [sub *A. paniculatum*]. The name replaces *A. paniculatum*, a species probably not native in the Mediterranean area according to BRULLO et Al., 1989

{*A. carinatum* L.} - SAVI (cf. sub *A. cirrhosum*)

{*A. paniculatum* L.} - SAVI (cf. sub *A. dentiferum*)

!![*A. cepa* L.] Cultivated - CP I

!!*A. nigrum* L.

!!*A. neapolitanum* Cyr.

!!*A. roseum* L. - CAR [sub *A. roseum* L. var. *bulbilliferum*]

!*A. subhirsutum* L. - POS

!!*A. triquetrum* L. - SAVI; SAVI II; PUCC; CAR; BAR; CELA RENZONI and GARBARI, 1970

!*A. ursinum* L. subsp. *ucrainicum* Kleopow et Oxner - CAR

*A. chamaemoly* L. - CAR; BAR

*Asparagus* L.

*A. tenuifolius* Lam. - CAR

!*A. acutifolius* L. - CAR; POS; MT

*Ruscus* L.

!*R. aculeatus* L. - SAVI; CAR; MT

!!\**R. hypoglossum* L.

*Smilax* L.

!!*S. aspera* L. - SAVI; CAR [sub *S. aspera* var. *altissima* Moris et De Not.]

*Ipheion* Rafin.

!![*I. uniflorum* (R.C. Graham) Rafin.] Cs

## AGAVACEAE

*Yucca* L.!![*Y. aloifolia*] Cs - VCR*Agave* L.!*A. americana* L. - BAR

## AMARYLLIDACEAE

*Sternbergia* Waldst. et Kit.*S. lutea* (L.) Ker-Gawl. - SAVI [sub *Amaryllis lutea* L.]; CAR*Leucojum* L.!*L. vernum* L. - SAVI; SAVI II; CAR*Galanthus* L.!!*G. nivalis* L. - SAVI II; PUCC; CAR*Narcissus* L.!![*N. pseudonarcissus* L.] Cs, widely naturalized mostly in the var. *flore-plenus* - SAVI; CAR [sub *Ajax pseudonarcissus* Haw.]![*Narcissus odorus* L.] Cs - PUCC; CAR [sub *Ajax odorus* Caruel]; VCR!![*N. jonquilla* L.] Cs - PUCC; CAR; VCR!!*N. tazetta* L. subsp. *tazetta* - CAR [etiam sub *N. patulus* Lois., *N. elatus* Guss., *N. canaliculatus* Guss., *N. vergellensis* Parl., *N. bicchianus* Parl., *N. papyraceus* Ker-Gawl.]*N. tazzetta* L. subsp. *bertolonii* (Parl.) Baker - PUCC; CAR [sub *N. bertolonii* Parl., *N. aureus* Lois., *Narcissus puccinellii* Parl.]!!*N. radiiflorus* Salisb.!!*N. poeticus* L. - SAVI; PUCC; CAR; DPT!![*N. incomparabilis* Miller] Cs - PUCC; CAR [sub *Ajax incomparabilis* Caruel]; VCR!!*N. biflorus* Curtis - PUCC; CAR

## DIOSCOREACEAE

*Tamus* L.!!*T. communis* L. - SAVI; CAR [sub *T. communis* L. var. *subtriloba* Guss.]

## IRIDACEAE

*Hermodactylus* Miller!!*H. tuberosus* (L.) Miller - PUCC [sub *Iris tuberosa* L.]; CAR

*Iris* L.

!!*I. chamaeiris* Bertol. - PUCC [sub *I. pumila* L.]; CAR [sub *I. olbiensis* Hen. et *I. chamaeiris* Bertol.]; COLASANTE, 1983 [sub *I. lutescens* Lam. s.l.]

!!*I. germanica* L.

!!*I. florentina* Mill. - SAVI [sub *I. alba* Savi]; CAR

!*I. pallida* Lam. - SAVI; CAR .

!*I. pseudoacorus* L.!!*I. foetidissima* L.*Crocus* L.

!!*C. napolitanus* Mord. et Loisel. - SAVI [sub *C. sativus* L.]

!!*C. albiflorus* Kit. ex Schultes - CESCA, 1961 [sub *C. vernus*]; MF  
[*C. sativus* L.] - SAVI (cf. sub *C. napolitanus*)

!!*C. biflorus* Miller - PUCC; CAR [sub *C. biflorus* var. *lineatus* (Jan.) Caruel]

*Romulea* Maratti

*R. bulbocodium* (L.) Seb. et Mauri - SAVI [sub *Ixia bulbocodium* L.]; SAVI II [*idem*]; PUCC; CAR

!!*R. columnae* Seb. et Mauri - PUCC; CAR

*Gladiolus* L.

!!*G. italicus* Miller

## JUNCACEAE

*Juncus* L.

*J. conglomeratus* L. - SAVI

!!*J. effusus* L. - TM

*J. inflexus* L. - BAR [sub *J. glaucus* Ehrh.]

*J. depauperatus* Ten. - CAR; BAR

!!*J. subnodulosus* Schrank - CAR [sub *J. obtusiflorus* Ehrh.]; TM

!!*J. bulbosus* L. - CAR [sub *J. supinus* Moench]; FICINI et Al., 1980

!*J. articulatus* L. sensu stricto

*J. capitatus* Weigel - CAR

*J. acutiflorus* Ehrh. - CAR [sub *J. sylvaticus* Reich.]

*Luzula* Lam. et DC.

*L. pedemontana* Boiss. et Reuter - CAR

*L. forsteri* (Sm.) DC. in Lam. et DC. - SAVI [sub *Juncus nemorosus*]; CAR

*L. pilosa* (L.) Willd. - SAVI II [sub *Juncus pilosus* L.]; PUCC; CAR [sub *L. vernalis* DC.]

!!*L. nivea* (L.) Lam. et DC. - SAVI II [sub *Juncus niveus* L.]; CAR

!*L. campestris* (L.) DC. in Lam. et DC. - SAVI [sub *Juncus campestris*

L.] CAR

**L. multiflora** Ehrh. - CAR [sub *L. erecta* Desv.]

*GRAMINEAE*

*Cynosurus* L.

**C. cristatus** L.

**!!C. echinatus** L. - POS

*Briza* L.

**!!B. maxima** L. - POS

**!!B. media** L. - SAVI; CAR

**!!B. minor** L.

*Dactylis* L.

**!!D. hispanica** Roth

**!!D. glomerata** L. - POS

*Poa* L.

**P. annua** L.

**P. compressa** L. - SAVI

**P. trivialis** L.

**!!P. bulbosa** L. - SAVI; CAR [sub *P. bulbosa* L. var. *vivipara* Auct.]

**P. pratensis** L. - SAVI [sub *P. angustifolia* L.]

*Vulpia* Gmelin

**!!V. geniculata** (L.) Link

**V. ligustica** (All.) Link

**!!V. ciliata** (Danth.) Link - POS

*V. myuros* (L.) Gmelin - SAVI [sub *Festuca myuros* L.]

*Festuca* L.

*F. rubra* L. - SAVI

{*F. ovina* L.} - SAVI (cf. sub *F. robustifolia*)

*F. gigantea* Vill. - PUCC [sub *Bromus giganteus* L.]; CAR

**!!F. pratensis** Hudson - PUCC [sub *F. elatior* L.]; CAR [*idem*]

**F. arundinacea** Schreber - PUCC; CAR

*F. spectabilis* Jan. - CAR I; BAR

*F. heterophylla* Lam. - CAR

**!!F. robustifolia** Mgf.- Dbg - SAVI [sub *F. ovina* L., cf. CAR]; CAR [sub

*F. duriuscula* L.]

**!!F. circummediterranea** Patzke

*Nardurus* L.

*N. halleri* (Viv.) Fiori - SAVI II [sub *Triticum festucoides* Bertol.]; PUCC [*idem*]; CAR [sub *Catapodium halleri* Gris. var. *tenuiculum* Gris.]

*Catapodium* Link

!!*C. rigidum* (L.) Hubbard

*Sesleria* Scop.

*S. autumnalis* (Scop.) F. Schultz - SAVI II [sub *S. argentea* Savi]; CAR  
[sub *S. elongata* Host var. *cylindrica* Lois.]; UJHELYI, 1959

[*S. cylindrica* (Balbis) DC.] - CAR [sub *S. elongata* Host var. *cylindrica* Lois.] (cf. UJHELYI, 1959)

*Melica* L.

!!*M. ciliata* L. - SAVI; CAR

*M. bahuinii* All. - SAVI II; CAR

!*M. uniflora* Retz. - SAVI; PUCC; CAR

*M. nutans* L. - SAVI; CAR

!!*M. arrecta* O. Kuntze - CAR [sub *M. minuta* L. var. *latifolia* Coss.]

*Psilurus* Trin.

!*P. incurvus* (Gouan) Schinz. et Thell. - CAR [sub *P. nardooides* Trin.]

*Lolium* L.

!*L. perenne* L.

!*L. temulentum* L.

!!*L. rigidum* Gaudin

!*L. multiflorum* Lam.

*Bromus* L.

*B. erectus* Hudson - SAVI [sub *Festuca montana* Savi]; PUCC; CAR

!!*B. benekenii* Lange - PUCC [sub *B. asper* L. fil.]; CAR [*idem*]

!*B. rubens* L.

!*B. sterilis* L.

!!*B. madritensis* L.

!*B. rigidus* Roth

!*B. gussonei* Parl.

!*B. intermedium* Guss.

!*B. arvensis* L.

*B. squarrosum* L. - SAVI

!!*B. hordeaceus* L.

*Brachypodium* Beauv.

!!*B. sylvaticum* (Huds.) Beauv. - CAR

!!*B. ramosum* (L.) Roem. et Schultz - PUCC [sub *Festuca phoenicoides* L.]; CAR

*B. pinnatum* (L.) Beauv. - PUCC [sub *Bromus pinnatus* L.]; CAR

*B. distachyum* (L.) Beauv. - PUCC [sub *Festuca distachya* Willd.]; CAR

*Hordeum* L.

**!H. bulbosum L.**

**!!H. murinum L.**

*Agropyron* Gaertner

*A. caninum* (L.) Beauv. - PUCC [sub *Triticum caninum* L.]; CAR [*idem*]

**!A. repens (L.) Beauv.**

*Dasypyrum* (Cass. et Dur.) Dur.

**!!D. villosum (L.) Borbas**

*Triticum* L.

**!![T. aestivum L.] Cs - PC; VCR**

*Aegilops* L.

**!!A. geniculata Roth subsp. *geniculata* - SAVI [sub *A. ovata* L.]; POS [*idem*]**

*Aegilops neglecta* Req. - CAR [sub *A. triaristata* Willd.]

*Avena* L.

**!!A. barbata Potter - POS [sub *A. fatua* L. var. *barbata* (Brot.)]**

**!!A. fatua L.**

*A. sterilis* L. - PUCC

*Arrhenatherum* Beauv.

*A. elatius* (L.) Beauv. ex J. et C. Presl - SAVI [sub *Avena elatior* L.]; CAR [sub *A. avenaceum* Roem. et Schult. var. *nodosum* Parl.]

*Danthonia* DC.

*D. alpina* Vest. - SAVI II [sub *Avena spicata* var. *calycina*]; CAR [sub *D. provincialis* DC.]

**!!D. decumbens (L.) DC. in Lam. et DC. - SAVI [sub *Poa decumbens* L.]; PUCC [sub *Triodia decumbens* Roem. et Schult.]; CAR; TM**

*Gaudinia* Beauv.

**!!G. fragilis (L.) Beauv.**

*Holcus* L.

**!!H. lanatus L.**

*Koeleria* Pers.

*K. splendens* C. Presl - SAVI [sub *Poa cristata* L.]; CAR [sub *K. grandiflora* Bert. in Schultz]

*Lophochloa* Reichenb.

**!L. cristata (L.) Hyl.**

**!!L. hispida (Savi) Pign. - SAVI [sub *Festuca hispida* Savi]; CAR [sub *Koeleria hispida* DC.]**

*Trisetum* Pers.

*T. flavescens* (L.) Beauv. - SAVI [sub *Avena flavescens* L.]; CAR

*Trisetaria* Försskal

!!*T. parviflora* Pers.

*Agrostis* L.

{*A. alpina* L.} - SAVI (cf. sub *A. canina*)

*A. canina* L. - SAVI [sub *A. alpina*]; CAR

!*A. stolonifera* L.

*A. castellana* Boiss. et Reuter - CAR II [sub *A. olivetorum* Gren. et Godr.]; BAR [*idem*]

*A. tenuis* Sibth. - CAR [sub *A. vulgaris* With. var. *pumila* Parl.]

*Gastridium* Beauv.

*G. ventricosum* (Gowan) Schinz et Thell. - SAVI [sub *Agrostis panicea* L.]; CAR [sub *G. australe* Pal.]

*Periballia* Trin.

!!*P. minuta* (L.) Asch. et Graebn.

*Aira* L.

*A. caryophyllea* L. - SAVI; CAR

!!*A. elegans* Willd. - SAVI [sub *A. capillaris* Savi]; CAR [sub *A. capillaris* Host. var. *cupaniana* (Guss.) Caruel]

*Deschampsia* Beauv.

*D. caespitosa* (L.) Beauv. - SAVI II [sub *Aira caespitosa* L.]

*D. media* (Gouan) Roemer et Schultes - CAR

*Avenella* Parl.

!*A. flexuosa* (L.) Parl. - PUCC [sub *Aira flexuosa* L.]; CAR [sub *Deschampsia flexuosa* Trin.]

*Molinia* Schrank

!!*M. coerulea* (L.) Moench - TM

*Phragmites* Adanson

!*P. australis* (Cav.) Trin.

*Arundo* L.

!![*A. donax* L.] Cs - PC; VCR

*Cleistogenes* Keng

*C. serotina* (L.) Keng - BS [sub *Festuca serotina* L.]; PUCC [*idem*]; CAR [sub *Molinia serotina* Mert. et Koch]

*Phalaris* L.

!*P. paradoxa* L.

!*P. brachystachys* Link

*Typhoides* Moench

!*T. arundinacea* (L.) Moench

*Anthoxanthum* L.

**!A. odoratum** L. - SAVI

*Alopecurus* L.

**!A. utriculatus** Pers.

**!!A. pratensis** L.

**!A. myosuroides** Hudson

*Phleum* L.

**!P. subulatum** (Savi) Asch. et Graebn. - SAVI [sub *Phalaris subulata* Savi];  
SAVI II [*idem*]

*P. hirsutum* Hankeny - SAVI [sub *Phalaris phleooides* L.]; CAR [sub *P. michelii* All.]

*P. paniculatum* Hudson - SAVI [sub *Phalaris aspera* L.]; CAR [sub *P. asperum* Jacq.]

**!P. pratense** L. - SAVI

*Stipa* L.

*S. bromoides* (L.) Doerfler - SAVI II [sub *Agrostis bromoides* L.]; PUCC  
[sub *Aristella bromoides* L.]; CAR [sub *Stipa aristella* L.]

*Oryzopsis* Michx.

*O. miliacea* (L.) Asch. et Schweinf. - CAR [sub *Milium multiflorum* Cav.]

*O. coerulescens* (Desf.) Richter - SAVI II [sub *Milium coerulescens* Desf.];  
BS [*idem*]; CAR [*idem*]

*Nardus* L.

**!N. stricta** L. - SAVI; SAVI II; CAR

*Eragrostis* Host

*E. pilosa* (L.) Beauv. - SAVI [sub *Poa eragrostis* L.]

**!!E. megastachya** (Koeler) Link

*Eleusine* Gaertner

**!E. indica** (L.) Gaertner

*Cynodon* Rich.

**!!C. dactylon** (L.) Pers. - CP I; PC

*Oryza* L.

[*O. sativa* L.] Cult - CP I; PC

*Echinochloa* Beauv.

**!E. crus-galli** (L.) Beauv.

*Digitaria* Haller

**!D. sanguinalis** (L.) Scop.

*D. ischaemum* (Schreber) Mulh. - CAR [sub *D. filiformis* Koel.]

*D. debilis* Willd. - CAR

*Paspalum* L.

[*P. dilatatum* Poir.] Cs - VCR

!![*P. quadrifarium* Lam.] Ac - GARBARI, 1966c; VCR

*Setaria* Beauv.

!*S. glauca* (L.) Beauv.

!*S. viridis* (L.) Beauv.

!*S. ambigua* Guss.

!*S. verticillata* (L.) Beauv.

*Imperata* Cyr.

*I. cylindrica* (L.) Beauv. - CAR [sub *I. arundinacea* Cyr.]

*Sorghum* Moench

![*S. halepense* (L.) Pers.] Cs - BAR [sub *S. halepense* var. *pubescens* Vis.]; VCR

![*S. bicolor* (L.) Moench] Cs

*Botriochloa* Kuntze

!!*B. ischaemon* (L.) Keng

*Cymbopogon* Sprengel

*C. hirtus* (L.) Janchen - SAVI II [sub *Andropogon hirtus* L.]; CAR [sub *Andropogon hirtus* Vis.]

*Zea* L.

!![*Z. mays* L.] cultivated - CP I; PC

*Bambusa* Schreber

![*Bambusa mitis* Poir.] Cs

## ARACEAE

*Arum* L.

!!*A. italicum* Miller - PC

*Dracunculus* Miller

*D. vulgaris* Schott - SAVI II [sub *Arum dracunculus* L.]; CAR

*Arisarum* Miller

!!*A. vulgare* Targ.-Tozz - SAVI [sub *Arum arisarum* L.]; SAVI II; CAR; POS; MF; GARBARI, 1966b; GARBARI, 1967

!!*A. proboscideum* L. Savi - GARBARI, 1966b

## SPARGANIACEAE

*Sparganium* L.

*S. erectum* L.

*S. emersum* Rehm. - CAR [sub *S. simplex* Huds.]

*TYPHACEAE**Typha* L.**!*Typha latifolia* L.***CYPERACEAE**Carex* L.*C. distachya* Desf. - PUCC [sub *C. gynomanae* Bertol.]; CAR**!*C. contigua* Hoppe** - BAR [sub *C. echinata* Murray]**!!*C. pairei* F. Schultz** - TM*C. divulsa* Stokes in With subsp. *divulsa* - CAR [sub *C. muricata* L. var. *divulsa* Wahlemb.]*C. divisa* Hudson - BAR [sub *C. divisa* Huds. var. *setifolia* (Godr.)] [*C. stellulata* Good.] - BAR [sub *C. echinata* Murray] - cf. sub *C. contigua**C. remota* L. - SAVI II; CAR**!!*C. gracilis* Curtis****!*C. caryophyllea* Latour** - CAR [sub *C. praecox* Jacq.]*C. grioretii* Roemer in Schkuhr - CAR*C. hallerana* Asso - CAR*C. digitata* L. - CAR**!!*C. olbiensis* Jordan** - CAR; BAR**!*C. sylvatica* Huds.***C. pallescens* L. - CAR**!!*C. lippocarpos* Gaudin** - CAR [sub *C. nitida* Host.]*C. punctata* Gaudin - CAR**!!*C. distans* L.** - TM**!*C. flava* L.** - PUCC; CAR; BAR**!!*C. pendula* Hudson** - BAR*C. vesicaria* L. - CAR*C. acutiformis* Ehrh. - BAR [sub *C. paludosa* Good.]**!!*C. flacca* Schreber** subsp. *flacca***!*C. hirta* L.***Isolepis* R. Br.*I. cernua* (Vahl) Roem. et Schult. - PUCC; CAR [sub *Scirpus savii* Seb. et Maur.]*I. setacea* (L.) R. Br. - CAR [sub *Scirpus setaceus* L.]*Eleocharis* R. Br. CAR [sub *Heleocharis*]**!!*E. acicularis* (L.) Roemer et Schultes** - CAR; TM; FICINI et Al., 1980*E. multicaulis* (Sm.) Desv. - BAR*E. palustris* (L.) Roem. et Schultes - CAR

*Schoenus* L.

!!*S. nigricans* L. - PUCC; CAR; TM; TOMEI and GARBARI, 1979

*Rynchospora* Vahl

!!*R. alba* (L.) Vahl - TM; TOMEI and GARBARI, 1979

*Cyperus* L.

!*C. longus* L.

*C. rotundus* L. - CAR

!*C. glaber* L.

*C. serotinus* Rothb. - CAR

*C. flavescentia* L. - BAR

### ORCHIDACEAE

This family is arranged according to DEL PRETE and TOSI, 1988

*Ophrys* L.

!!*O. vernixia* Brot. subsp. *ciliata* (Biv.-Bern.) Del Prete - DPC [sub *O. speculum* Link]

!!*O. sphegodes* Miller - PUCC [sub *O. aranifera*]; DEL PRETE and GIORDANI, 1978 [etiam sub subsp. *litigiosa* (E.G. Cam.) Becherer]; DPC [*idem* et sub subsp. *jeanpertii*]

!!*O. garganica* (E. Nelson) O. et E. Danesch - DPC [sub *O. sphegodes* subsp. *garganica*]

!!*O. holoserica* (N.L. Burm.) W. Greuter subsp. *holoserica* - SAVI [sub *O. arachnites* L.]; CAR [sub *O. arachnites* Host]; DPC [sub *O. fuciflora*]

!!*O. tenthredinifera* Willd. - DPC

!!*O. apifera* Huds. subsp. *apifera* - CAR; DPC

!!*O. bombyliflora* Link - PUCC [sub *O. hiulca* Mauri]; CAR; DPC

!!*O. exaltata* Ten. subsp. *tyrrhena* (Götz et Reinh.) Del Prete - SAVI [sub *O. arachnites* var.  $\beta$ ]; DEL PRETE and GIORDANI, 1978 [sub *O. arachnitiformis* Gren. et Phil.]; DPC [*idem*]

!!*O. saratoi* E.G. Cam.

*Serapias* L.

!!*S. vomeracea* (N.L. Burm.) Briq - CAR [sub *S. pseudocordigera* Moric.]; DEL PRETE, 1977; DPC

!!*S. neglecta* De Not. - PUCC [sub *S. cordigera* L.]; CAR; DPC

!!*S. cordigera* L. - SAVI [sub *S. lingua* L. var.  $\beta$ ]; DPC

!!*S. parviflora* Parl. - DEL PRETE, 1977; DPC

!!*S. lingua* L. - SAVI; PUCC; CAR; DPC

*Anacamptis* L.C.M. Rich.

!!*A. pyramidalis* (L.) L.C.M. Rich. - DPC

*Aceras* R. Br. ex Aiton fil.

!!*A. anthropophorum* (L.) R. Br. ex Aiton fil. - CAR; DPC

*Orchis* L.

!!*O. papilionacea* L. subsp. *papilionacea* - SAVI II; PUCC; CAR; DPC

!!*O. morio* L. subsp. *morio* - PUCC; CAR; DPC

!!*O. mascula* (L.) L. subsp. *mascula* - CAR; DPC

!!*O. provincialis* Balbis ex Lam. et DC. - SAVI [sub *O. pallens* L.]; SAVI II; PUCC; CAR; DPC

{*O. pallens* L.}

!!*O. pauciflora* Ten. - PUCC [sub *O. provincialis* var.  $\alpha$ ]; CAR; BAR [sub *O. provincialis* var. *pauciflora*]; DPC

!!*O. laxiflora* Lam. - CAR; DPC

!!*O. palustris* Jacq. - ARCANGELI, 1882; BAR [sub *O. laxiflora* var. *palustris*]; DPC

{*O. coriophora* L.} - CAR

!!*O. fragrans* Pollini - CAR [sub *O. coriophora* L.]; DPC

!!*O. tridentata* Scop. - SAVI II [sub *O. globosa* L.]; CAR; DEL PRETE and GIORDANI, 1978; DPC

!!*O. simia* Lam. - PUCC [sub *O. tephrosanthos* Willd.]; CAR [*idem*]; CAR I [*idem*]; BAR [*idem*]; DPC

*O. purpurea* Huds. - SAVI II [sub *O. fusca* Willd.]

!!*O. x gennari* Reichenb.

*Neotinea* Reichenb.

!!*N. maculata* (Desf.) Stearn - SAVI II [sub *O. secundiflora* Bertol.]; PUCC [*idem*]; CAR [sub *Himantoglossum secundiflorum* Reichenb.]; DPC

*Traunsteinera* Reichenb.

{*T. globosa*} SAVI II [sub *Orchis globosa* L.] cf. sub *Orchis tridentata*

*Dactylorhiza* Necker ex Nevski

!!*D. fuchsii* (Druce) Soó subsp. *fuchsii* - SAVI II [sub *Orchis maculata* L.]; PUCC [*idem*]; CAR [*idem*]; CESCA, 1961 [*idem*]; DPC [sub *D. maculata* (L.) Soó]

{*D. maculata* (L.) Soó s. s.} - SAVI II [sub *Orchis maculata* L.]; PUCC [*idem*]; CAR [*idem*]; DPC

*Gymnadenia* R. Br. ex Aiton fil.

!!*G. conopea* (L.) R. Br. ex Aiton fil. - CAR; DPC

*Platanthera* L.C.M. Rich.

!!*P. bifolia* (L.) L.C.M. Rich. - SAVI [sub *Ophrys ovata* L.]; CAR; DPC

!!*P. chlorantha* (Custer) Reichenb. - CAR; DEL PRETE, 1977; DPC

*Spiranthes* (Poiret) L.C.M. Rich.

!!*S. spiralis* (L.) L.C.M. Rich. - CAR [sub *S. autumnalis*]; DPC

!!*S. aestivalis* (Poiret) L.C.M. Rich. - CAR; DPC

*Listera* R. Br. ex Aiton fil.

!!*L. ovata* (L.) R. Br. ex Aiton fil. - CAR; DPC

*Neottia* Guettard

!!*N. nidus-avis* (L.) L.C.M. Rich. - CAR; DPC

*Limodorum* Bohem. in Ludwig

!!*L. abortivum* (L.) Swartz - PUCC; CAR; DPC

*Cephalanthera* L.C.M. Rich.

!!*C. longifolia* (L.) Fritsch - CAR [sub *C. ensifolia*]; DPC

!!*C. rubra* (L.) L.C.M. Rich. - DPC

!!*C. damasonium* (Miller) Druce - DPC

*Epipactis* Zinn.

!!*E. helleborine* (L.) Crantz subsp. *helleborine* - PUCC [sub *E. latifolia* All.]; CAR [*idem*]; DPC

!!*E. microphylla* (Ehrh.) Swartz - CAR; DPC

## CONCLUDING REMARKS

At present the M. Pisano flora results to be constituted by 872 verified entities. Other 341 specific and subspecific taxa, known from literature, were not collected or verified by the present Authors in recent time. 42 taxa wrongly mentioned or misinterpreted — such as *Polystichum aculeatum*, *Thesium linophyllum*, *Cerastium tomentosum*, *C. alpinum*, *Biscutella auriculata*, *Potentilla anglica*, *Cyclamen purpurascens*, *Crepis tectorum*, *Ornithogalum collinum*, *Agrostis alpina*, etc. — have to be definitely rejected from the area. Even if depauperated by human activities, fires, grazing and erosion, Mount Pisano still shows several important geobotanical aspects due to the presence of rare or phytogeographically relevant elements as the following list shows (?) indicates entities which need further confirmations; ! means confirmation by the present authors):

Scattered distribution

? *Arnoseris minima*

? *Asplenium obovatum*

! *Aster sedifolius*

! *Biscutella cichoriifolia*

? *Cheilanthes acrostica*

? *Hymenophyllum tunbrigense*

- ? *Hypochoeris maculata*
- ! *Lamiastrum galeobdolon*
- ! *Lysimachia nemorum*
- ! *Ophioglossum azoricum*
- ! *Ophrys saratoi*
- ! *Ophrys vernixia* subsp. *ciliata*
- ? *Orobanche loricata*
- ! *Pinus laricio*
- ! *Prunus mahaleb*
- ? *Rosa seraphini*
- ? *Stellaria graminea*
- ? *Verbascum phoeniceum*

#### Heterotopic distribution

- ? *Antennaria dioica*

#### Italian endemics

- ! *Astragalus muelleri*
- ! *Centaurea deusta* subsp. *deusta*
- ? *Deschampsia media*
- ? *Festuca spectabilis*
- ! *Fumana arabica*
- ! *Hypericum mutilum*
- ? *Juncus depauperatus*
- ? *Narcissus bertolonii*
- ! *Polygala flavescens*
- ! *Pulmonaria vallarsae*

#### Eastern limit of distribution

- ? *Deschampsia media*
- ! *Lophochloa hispida*

#### Northern limit of distribution

- ? *Lens ervoides*
- ? *Scorpiurus vermiculata*

#### Southern limit of distribution

- ? *Antennaria dioica*
- ! *Drosera intermedia*
- ! *Drosera rotundifolia*

- ? *Luzula pedemontana*  
! *Gentiana pneumonanthe*

Further investigations are in progress mainly in order to realize the reasons of the gradual floristic impoverishment of the area.

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