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Notes on systematics and taxonomy for the Italian vascular flora. 2.

Abstract - The present study forms part of the series of systematic and taxonomic contributions related to plant species of the Italian flora, and also other phanerogams, in light of recent biosystematic works of a molecular-genetic nature.

Caloscordum and *Nectaroscordum* are separated from *Allium* s.l., *Holandrea* is included within *Dichoropetalum*, *Ficaria* is separated from *Ranunculus* and *Althaea* sect. *Hirsutae* is included within *Malva*. Confirmation is given for the inclusion of *Lavatera* within *Malva*, of *Aegilops* within *Triticum* and for the separation of *Phelipanche* from *Orobanche*. In addition some observations regarding the genera *Cytisus*, *Hippophaë*, *Portulaca*, *Rhaponticum*, *Senecio* and *Torilis* are presented.

Finally new combinations and/or new names are proposed within the genera *Caloscordum*, *Nectaroscordum*, *Dichoropetalum*, *Ficaria*, *Hippophaë*, *Malva*, *Portulaca* and *Rhaponticum*.

Key words: Italian vascular flora, systematics, taxonomy, nomenclature.

Riassunto - Appunti di sistematica e tassonomia per la flora italiana. 2.

Continua la serie di contributi sistematici e tassonomici relativi a entità della flora italiana, ma anche ad altre fanerogame, predisposti alla luce di recenti lavori di biosistematica su base genetico-molecolare.

Da *Allium* s.l. vengono separati *Caloscordum* e *Nectaroscordum*, *Holandrea* è unito a *Dichoropetalum*, *Ficaria* è separato da *Ranunculus* e *Althaea* sect. *Hirsutae* è unita a *Malva*. Viene ribadita la riunione di *Lavatera* a *Malva*, di *Aegilops* a *Triticum* e la separazione di *Phelipanche* da *Orobanche*. Inoltre vengono fatte alcune considerazioni sui generi *Cytisus*, *Hippophaë*, *Portulaca*, *Rhaponticum*, *Senecio* e *Torilis*.

Infine vengono proposte nuove combinazioni e/o nuovi nomi nei generi *Caloscordum*, *Nectaroscordum*, *Dichoropetalum*, *Ficaria*, *Hippophaë*, *Malva*, *Portulaca* e *Rhaponticum*.

Parole chiave: flora italiana, sistematica, tassonomia, nomenclatura.

Introduction

This paper is the second contribution in the series regarding the nomenclature of the Italian vascular flora and other phanerogams, following on a preliminary note (Banfi *et al.*, 2005) and an observation on the genus *Vachellia* (Banfi &

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Galasso, 2008), both published in this journal. The basic systematic principle of the conventional and working representation of the diversity of life which inspired these contributions is that expressed by Potter & Freudenstein (2005). The latter states that the taxonomic categories of the Linnean hierarchical system constitute the best possibile way of representing monophyletic taxa and excludes alternatives to that model as they are not able to optimise the overall information of the system. Therefore, the taxa can and should occupy the positions indicated within the traditional system on the basis of their phylogenetic congruence. Although in practise the use of the Linnean categories is not under discussion we wanted to draw attention to this point here as attempts to propose superfluous alternatives are ever present, even if they are usually destined to fail, rejecting for who knows what reason better conventions founded on experience and time.

***Allium* s.l.**

Friesen *et al.* (2006) proposed a new intrageneric classification for the genus *Allium*, based on analyses of the ITS sequences of the nDNA. The subgenera and sections were appropriately circumscribed on the basis of the monophyletic terminals. However, it is retained here that the principal division of the three main monophyletic groupings (clades originally marked with the numbers 1, 2, 3), which is extremely evident in the cladogram and supported by elevated bootstrap values, has been undervalued in the choice of taxonomic rank (subgenus), considering that, above all, the premises for the adoption of genus level already exist in the literature. These in our opinion are more immediate and appropriate for the identification of the principal monophyletic taxa. We consider that the stated trichotomy is more informative by far, in phylogenetic terms, and consequently for systematic representation, than terminal groupings which correspond to a lower hierarchy. The three principal monophyletic groupings may be linked to distinct genera and we see no theoretical or practical reason for continuing to support the acceptance of a broader definition of *Allium*.

The division proposed here and which curiously displays a certain symmetry with the American triad of the genera *Ipheion* Raf., *Tristagma* Poepp. and *Nothoscordum* Kunth, retains *Allium* (type: *A. sativum*) for the majority of the species, restores *Nectaroscordum* (type: *N. siculum*) and extends it, for the moment, to the 11 species relevant to the Italian flora and *Caloscordum* (type: *C. neriniflorum*), also extended to 5 species of national interest. Four of the species considered do not belong to the native Italian flora, however, they are regularly sold as garden ornamentals, often being found locally growing spontaneously.

The following taxa are present in Italy.

Allium L.

Includes the majority of the species of *Allium* s.l. present in Italy, not listed here.

Caloscordum Herb.

Genus inclusive, within *Allium* s.l., of the subgenera *Caloscordum* (Herb.) R.M.Fritsch, *Anguinum* (G.Don ex W.D.J.Koch) N.Friesen, *Porphyroprason* (Ekberg) R.M.Fritsch, *Vvedenskya* (Kamelin) R.M.Fritsch. and *Melanocrommyon* Rouy.

The following subgenera and species are present in Italy.

Caloscordum Herb. subgen. ***Anguinum*** (G.Don ex W.D.J.Koch) Banfi & Galasso, **comb. nov.** (bas.: *Allium* L. sect. *Anguinum* G.Don ex W.D.J.Koch, *Syn. Deut. Schweiz. Fl. [W. D. J. Koch]*, 2: 714. 1838) (≡ *Allium* L. subgen. *Anguinum* (G.Don ex W.D.J.Koch) N.Friesen)

Caloscordum victorialis (L.) Banfi & Galasso, **comb. nov.** (bas.: *Allium victorialis* L., *Sp. Pl.*, 1: 295. 1753)

Caloscordum Herb. subgen. ***Melanocrommyon*** (Rouy) Banfi & Galasso, **comb. nov.** (bas.: *Allium* L. subgen. *Melanocrommyon* Rouy, *Fl. France [Rouy & Foucaud]*, 12: 378. 1910) (≡ *Allium* L. sect. *Melanocrommyum* Webb & Berthel.).

The name by Rouy (1910), even if adopted by Webb & Berthelot (1848), do not represent only a *status novus*, but also a *nomen novum* established by the author with a greek (*-on*) rather than latin (*-um*) ending and thus is to be considered as the basionym. The case is analogous to the couple *Pseudolysimachion* Opiz and *Veronica* L. sect. *Pseudolysimachium* W.D.J.Koch (cfr. Holub & Pouzar, 1967; Albach *et al.*, 2004) and *Aconogonum* Rchb. and *Polygonum* L. sect. *Aconogonon* Meisn. (cfr. Galasso *et al.*, 2006).

Caloscordum cristophii (Trautv.) Banfi & Galasso, **comb. nov.** (bas.: *Allium cristophii* Trautv., *Trudy Imp. S.-Peterburgsk. Bot. Sada*, 9: 268. 1884)

Caloscordum cyrilli (Ten.) Banfi & Galasso, **comb. nov.** (bas.: *Allium cyrilli* Ten., *Fl. Napol.*, 3: 364. 1824-1829)

Caloscordum nigrum (L.) Banfi & Galasso, **comb. nov.** (bas.: *Allium nigrum* L., *Sp. Pl., ed. 2.*, 1: 430. 1762)

Caloscordum Herb. subgen. ***Porphyroprason*** (Ekberg) Banfi & Galasso, **comb. nov.** (bas.: *Allium* L. sect. *Porphyroprason* Ekberg, *Bot. Not.*, 122: 65. 1969) (≡ *Allium* L. subgen. *Porphyroprason* (Ekberg) R.M.Fritsch)

Caloscordum oreophilum (C.A.Mey.) Banfi & Galasso, **comb. nov.** (bas.: *Allium oreophilum* C.A.Mey., *Verz. Pfl. Casp. Meer. (C.A. von Meyer).*: 37. 1831)

Furthermore the following combination is deemed necessary.

Caloscordum Herb. subgen. ***Vvedenskya*** (Kamelin) Banfi & Galasso, **comb. nov.** (bas.: *Allium* L. sect. *Vvedenskya* Kamelin, *Florogenet. Anal. Estest. Fl. Gorn. Sred. Azii*: 243. 1973) (≡ *Allium* L. subgen. *Vvedenskya* (Kamelin) R.M.Fritsch)

Nectaroscordum Lindl.

Genus inclusive, within *Allium*, of the subgenera *Nectaroscordum* (Lindl.) Asch. & Graebn., *Microscordum* (Maxim.) N.Friesen, *Amerallium* Traub.

The following subgenera and species are present in Italy.

Nectaroscordum Lindl. subgen. ***Amerallium*** (Traub) Galasso & Banfi, **comb. nov.** (bas.: *Allium* L. subgen. *Amerallium* Traub, *Pl. Life*, 24: 159. 1968).

Nectaroscordum chamaemoly (L.) Galasso & Banfi, **comb. nov.** (bas.: *Allium chamaemoly* L., *Sp. Pl.*, 1: 301. 1753)

Nectaroscordum insubricum (Boiss. & Reut. ex Reut.) Galasso & Banfi, **comb. nov.** (bas.: *Allium insubricum* Boiss. & Reut. ex Reut., *Cat. Graines Jard. Bot. Genève [1856]*: 4. 1856) (= *Allium insubricum* Boiss. & Reut. in Reut., *Cat. Graines Jard. Bot. Genève [1854]*: 4. 1854, nom. nud.)

It is noted, contrary to what is commonly stated, that the author of the basionym is not Boiss. & Reut., but Boiss. & Reut. ex Reut. (ICBN, art. 46.4: McNeill *et al.*, 2006).

Nectaroscordum moly (L.) Galasso & Banfi, **comb. nov.** (bas.: *Allium moly* L., *Sp. Pl.*, 1: 301. 1753)

Nectaroscordum narcissiflorum (Vill.) Galasso & Banfi, **comb. nov.** (bas.: *Allium narcissiflorum* Vill., *Prosp. Hist. Pl. Dauphiné*: 18. 1779)

Nectaroscordum neapolitanum (Cyr.) Galasso & Banfi, **comb. nov.** (bas.: *Allium neapolitanum* Cyr., *Pl. Rar. Neapol.*, 1: 13, t. 4. 1788) (= *Allium inodorum* Aiton ≡ *Nothoscordum inodorum* (Aiton) G.Nicholson)

Synonymy according to Stearn (1986).

Nectaroscordum pendulinum (Ten.) Galasso & Banfi, **comb. nov.** (bas.: *Allium pendulinum* Ten., *Fl. Napol.*, 1, *Prodr.*: XXII, *Fl.*: 168, t. 31. 1811-1815)

Nectaroscordum roseum (L.) Galasso & Banfi, **comb. nov.** (bas.: *Allium roseum* L., *Sp. Pl.*, 1: 296. 1753)

Nectaroscordum triquetrum (L.) Galasso & Banfi, **comb. nov.** (bas.: *Allium triquetrum* L., *Sp. Pl.*, 1: 300. 1753)

Nectaroscordum ursinum (L.) Galasso & Banfi, **comb. nov.** (bas.: *Allium ursinum* L., *Sp. Pl.*, 1: 300. 1753) (= *Allium ursinum* L. subsp. *ucrainicum* Kleopow & Oxner ≡ *Allium ucrainicum* (Kleopow & Oxner) Bordz.)

In agreement with Czerepanov (1995) we include *Allium ucrainicum* within *N. ursinum*.

Nectaroscordum Lindl. subgen. ***Nectaroscordum***

Nectaroscordum bulgaricum Janka (≡ *Nectaroscordum siculum* (Ucria) Lindl. subsp. *bulgaricum* (Janka) Stearn)

Nectaroscordum siculum (Ucria) Lindl. (≡ *Allium siculum* Ucria)

The following combination is also deemed necessary.

Nectaroscordum Lindl. subgen. ***Microscordum*** (Maxim.) Galasso & Banfi, **comb. nov.** (bas.: *Allium* L. sect. *Microscordum* Maxim., *Bull. Acad. Imp. Sci. Saint-Pétersbourg*, 31 (1): 109. 1886) (≡ *Allium* L. subgen. *Microscordum* (Maxim.) N.Friesen)

Cytisus

Cytisus is a very diversified genus, whose limits are still not quite clear; it is often subdivided into "restricted" genera according to the diverse interpretations that have been given by different authors (cfr. Polhill, 1976; Bisby, 1981; Talavera & Salguerio, 1989). As has already been exhaustively outlined by Cristofolini & Troìa (2006), a broad definition of *Cytisus* should be maintained with autonomy granted only to *Cytisophyllum* and *Laburnum*. However, it is necessary to clarify some nomenclatural points related to the species previously assigned to *Calicotome*.

Cytisus laniger DC. (≡ *Spartium villosum* Poir., non *Cytisus villosus* Pourr. ≡ *Calicotome villosa* (Poir.) Link ≡ *Spartium lanigerum* Desf., nom. illeg.)

De Candolle (Lamarck & Candolle, 1805) published the epithet '*lanigerus*' with an inappropriate latin ending; hence, based on artt. 32.7 and 23.5 of the ICBN (McNeill *et al.*, 2006), this should be corrected as shown above. Furthermore, this binomial should not be taken as a new combination of the name of Desfontaines (1798), as the latter is illegitimate, but as a new name.

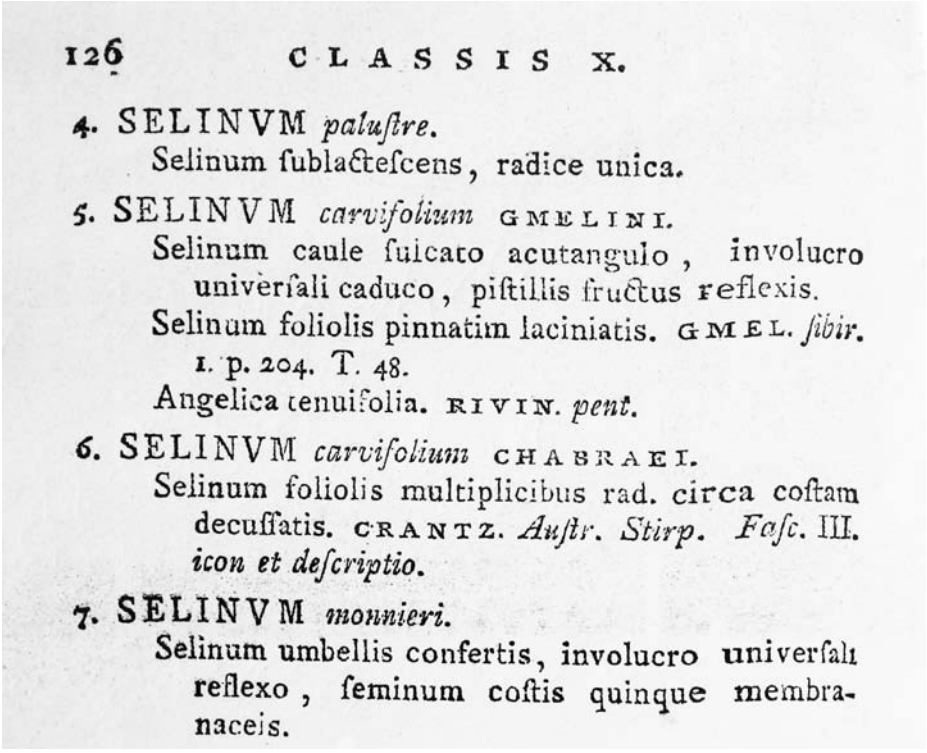
Cytisus intermedius (C.Presl) Walp. (≡ *Calicotome intermedia* C.Presl ≡ *Calicotome infesta* (C.Presl) Guss. subsp. *intermedia* (C.Presl) Greuter ≡ *Cytisus infestus* (C.Presl) Guss. subsp. *intermedius* (C.Presl) Cristof. & Troìa)

Dichoropetalum

Based on analyses of the ITS sequences, the genus *Holandrea*, already recently separated from *Peucedanum*, has been transferred to *Dichoropetalum* Fenzl together with other species of *Peucedanum* s.l., all grouped as belonging to the SE-European-SW-Asiatic chorotype (Valiejo-Roman *et al.*, 2006; Pimenov *et al.*, 2007). The following species are recognised in Italy.

Dichoropetalum carvifolium-chabraei (Crantz) Soldano, Galasso & Banfi, **comb. nov.** (bas.: *Selinum carvifolium-chabraei* Crantz, *Inst. Rei Herb.*, 2: 126. 1766) (≡ *Holandrea carvifolium-chabraei* (Crantz) Soldano, Galasso & Banfi ≡ *Peucedanum carvifolium-chabraei* (Crantz) Soldano ≡ *Peucedanum carvifolia* Vill., nom. illeg. ≡ *Holandrea carvifolia* Reduron, Charpin & Pimenov, non (Vill.) Reduron, Charpin & Pimenov, nom. illeg. ≡ *Dichoropetalum carvifolia* Pimenov & Kljuykov, nom. illeg.)

Soldano *et al.* (2005) adopted the epithet *carvifolium-chabraei* instead of *carvifolia* on the assumption that the two words utilized by Crantz (1766; cfr. Fig. 1), preceding Crantz (1767), form a valid epithet and should be hyphenated (ICBN, art. 23.6 (c) Ex. 16, art. 23.1, art. 60.9: McNeill *et al.*, 2006). Greuter (2009) defined the combination in question as «illegitimate creation based on a non-existent purported basionym». Several contemporaries of Crantz, including Jacquin (1773; cfr. Fig. 2) and Allioni (1785; cfr. Fig. 3), made repeated use of the composition *carvifolium chabraei* (or *carvifolia chabraei*) with the obvious meaning of a true epithet and not of a phrase name.



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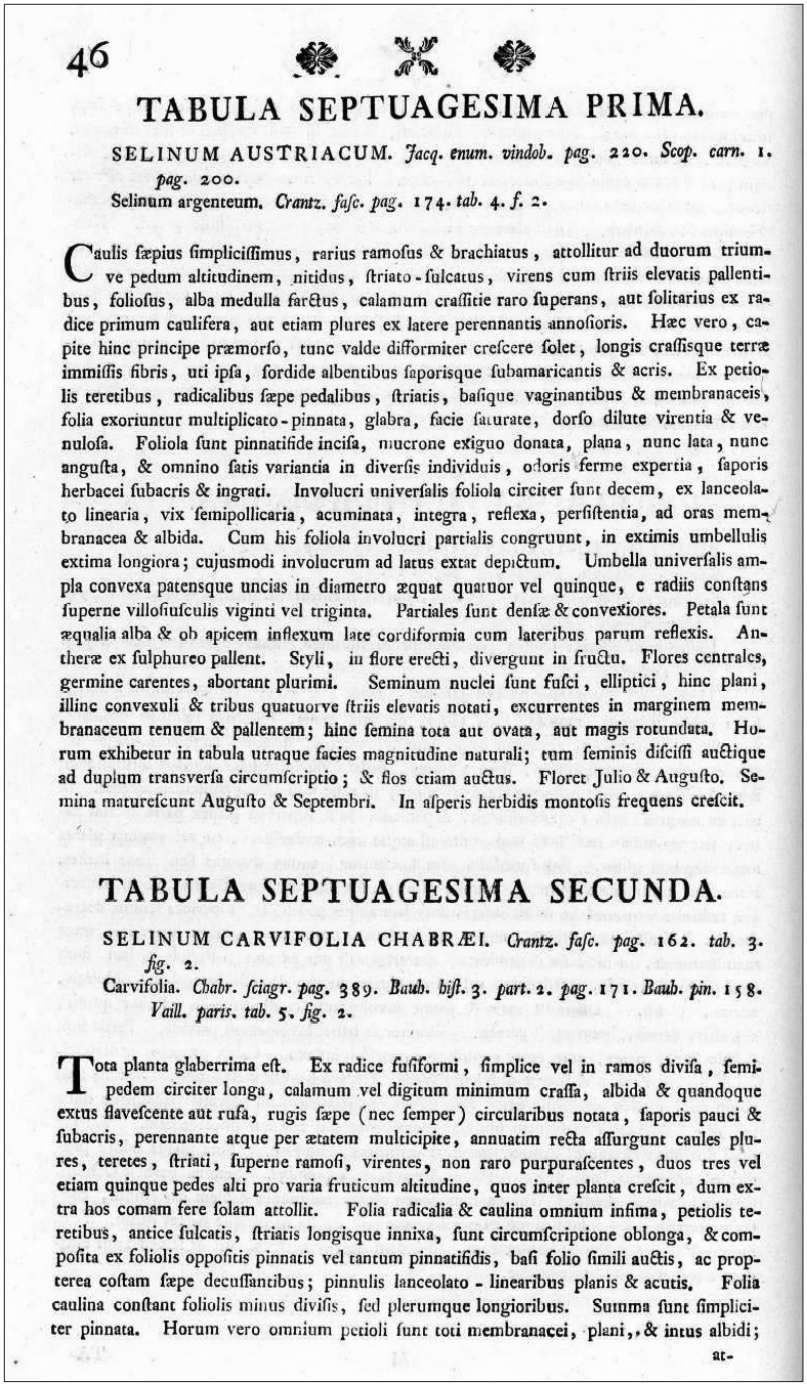
4. SELINVM *paluſtre.*
Selinum ſublacteſcens, radice unica.

5. SELINVM *carvifolium* GMELINI.
Selinum caule ſulcato acutangulo, involucro univerſali caduco, piſtillis fructus reflexis.
Selinum foliolis pinnatim laciniatis. GMEL. *ſibir.* 1. p. 204. T. 48.
Angelica tenuifolia. RIVIN. *pent.*

6. SELINVM *carvifolium* CHABRAEI.
Selinum foliolis multiplicibus rad. circa coſtam decuſſatis. CRANTZ. *Auſtr. Stirp. Faſc.* III. *icon et deſcriptio.*

7. SELINVM *monnieri.*
Selinum umbellis confertis, involucro univerſali reflexo, ſeminum coſtis quinque membranaceis.

Fig. 1 - The Crantz's protologue of "SELINUM *carvifolium* CHABRAEI" (1766).



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TABULA SEPTUAGESIMA PRIMA.

SELINUM AUSTRIACUM. *Jacq. enum. vindob. pag.* 220. *Scop. carn.* 1. *pag.* 200.
Selinum argenteum. *Crantz. faſc. pag.* 174. *tab.* 4. *f.* 2.

Caulis fæpius ſimpliciſſimus, rarius ramoſus & brachiatus, attollitur ad duorum trium-ve pedum altitudinem, nitidus, ſtriato-ſulcatus, virens cum ſtriis elevatis pallentibus, folioſus, alba medulla farctus, calamum craſſitie raro ſuperans, aut ſolitarius ex radice primum caulifera, aut etiam plures ex latere perennantis annoſioris. Hæc vero, capite hinc principe præmorſo, tunc valde diſformiter creſcere ſolet, longis craſſisque terræ immiſſis fibris, uti ipſa, ſordide albentibus ſaporisque ſubamaricantis & acris. Ex petiolis teretibus, radicalibus fæpe pedalibus, ſtriatis, baſique vaginantibus & membranaceis, folia exoriuntur multiplicato-pinnata, glabra, facie ſaturate, dorſo dilute virentia & venuloſa. Foliola ſunt pinnatifide inciſa, mucrone exiguo donata, plana, nunc lata, nunc anguſta, & omnino ſatis variantia in diverſis individuis, odoris ferme expertia, ſaporis herbacei ſubacris & ingrati. Involucri univerſalis foliola circiter ſunt decem, ex lanceolato linearia, vix ſemipollicaria, acuminata, integra, reflexa, perſiſtentia, ad oras membranacea & albida. Cum his foliola involucri partialis congruunt, in extimis umbellulis extima longiora; cujusmodi involucrum ad latus extat depictum. Umbella univerſalis ampla convexa patensque uncias in diametro æquat quatuor vel quinque, e radiis conſtans ſuperne villoſiuſculis viginti vel triginta. Partiales ſunt denſæ & convexiores. Petala ſunt æqualia alba & ob apicem inflexum late cordiformia cum lateribus parum reflexis. Antheræ ex ſulphureo pallent. Styli, in flore erecti, divergunt in fructu. Flores centrales, germine carentes, abortant plurimi. Seminum nuclei ſunt fuſci, elliptici, hinc plani, illinc convexuli & tribus quatuorve ſtriis elevatis notati, excurrentes in marginem membranaceum tenuem & pallentem; hinc ſemina tota aut ovata, aut magis rotundata. Horum exhibetur in tabula utraque facies magnitudine naturali; tum ſeminis diſciſſi auctique ad duplum transverſa circumſcriptio; & flos etiam auctus. Floret Julio & Auguſto. Semina matureſcunt Auguſto & Septembri. In aſperis herbidis montoſis frequens creſcit.

TABULA SEPTUAGESIMA SECUNDA.

SELINUM CARVIFOLIA CHABRÆI. *Crantz. faſc. pag.* 162. *tab.* 3. *fig.* 2.
Carvifolia. *Chabr. ſciagr. pag.* 389. *Bauh. hiſt.* 3. *part.* 2. *pag.* 171. *Bauh. pin.* 158. *Vaill. paris. tab.* 5. *fig.* 2.

Tota planta glaberrima eſt. Ex radice fuſiformi, ſimplice vel in ramos diviſa, ſemipedem circiter longa, calamum vel digitum minimum craſſa, albida & quandoque extus flaveſcente aut ruſa, rugis fæpe (nec ſemper) circularibus notata, ſaporis pauci & ſubacris, perennante atque per ætatem multicipite, annuatim recta aſſurgunt caules plures, teretes, ſtriati, ſuperne ramoſi, virentes, non raro purpuraſcentes, duos tres vel etiam quinque pedes alti pro varia fruticum altitudine, quos inter planta creſcit, dum extra hos comam fere ſolam attollit. Folia radicalia & caulina omnium infima, petiolis teretibus, antice ſulcatis, ſtriatis longisque innixa, ſunt circumſcriptione oblonga, & compoſita ex foliolis oppoſitis pinnatis vel tantum pinnatifidis, baſi folio ſimili auctis, ac propterea coſtam fæpe decuſſantibus; pinnulis lanceolato-linearibus planis & acutis. Folia caulina conſtant foliolis minus diviſis, ſed plerumque longioribus. Summa ſunt ſimpliciter pinnata. Horum vero omnium petioli ſunt toti membranacei, plani, & intus albidi;

at-

Fig. 2 - The initial part of the treatment of "SELINUM CARVIFOLIA CHABRÆI" in the *Flora Austriaca* by Jacquin (1773); note that the author makes a precise reference to the name already employed by Crantz.

1304. SELINUM argenteum.
Icon. Taur. Vol. XXVIII. tab. 3.
Selinum petiolis argenteis, & viridibus, striis lineatis, semine alis latis albidis. Crantz. *fasc. 3. p. 43. tab. 14. f. 2.*
Loc. Pedemontii indigena. *Perenne.*

1305. SELINUM Carvifolia Chabraei.
Icon. Taur. Vol. XXI. tab. 65.
Selinum foliis multiplicibus radicalibus circa costam decussatis. Crantz. *fasc. 3. tab. 3. fig. 2. Class. umbel. p. 62.*
Selinum foliorum vaginis, & foliorum segmentis longissimis. Id. ibid.
Peucedanum carvifolia foliis circa costam decussatis, caulinis longissimis, & multiformibus. Vill. *prosp. p. 25.*
Carvifolia Chabraei. Stip. icon. p. 389.
Carvifolia. Vaill. *tab. 5. f. 2.*
Loc. In pratis alpium non infrequens, atque etiam in pratis *Nicaeensibus* occurrit, imo in sylvis collium, & pascuis subhumidis agri *Taurinensis* circa *la Veneria* frequentem vidit *Cl.* Bellardi. *Bienne.*

1306. SELINUM pseudo-carvifolia. Crantz.
Selinum foliis triplicato-pinnatis, pinnis latiusculis simplicibus, & trifidis. Hall. *hist. tom. 1. p. 356. n. 802. tab. 20.*
Selinum (carvifolia) *caule sulcato acutangulo-involucro universali caduco, pistillis fructus-reflexis.* Linn. *spec. p. 350.*
Selinum carvifolia. Linn. Jacq. *hort. vindob. tab. 16.*
Selinum caule alato, foliolis bifidis, & trifidis. Zinn *Gott. 221.*
Laserpitium selinoides. Scop. *Fl. Carn. 1. p. 198.*
Angelica tenuifolia. Riv. *pent. tab. 18.*
Selinum foliolis pinnatim laciniatis. Gmel. *Sib. 1. p. 204. tab. 43.*
Angelica tenuifolia. Rupp. *fl. Jen. p. 277.* Dill. *Giss. 127.*
Loc. Secus fossas in pratis humidis praesertim ad alpium radices. *Perenne.*

THAPSIA. Linn. *gen. n. 323. syst. n. 358.* Tourn. *tab. 171.*

Flores aequales, petalis integris lanceolatis, involucrum nullum. Semen oblongum tristriatum magna ala cinctum, quae supra, & infra ampliter truncata est, & emarginata.

1307 THAPSIA villosa.
Icon. Taur. Vol. XIX. tab. 28.
Thapsia foliolis dentatis villosis basi coadunatis. Linn. *spec. p. 375*
Thapsia latifolia villosa. Bauh. *pin. 148.* Tourn. *inst. 323.*
Thapsia quorumdam hirsuta, & aspera Cicutae folio, flore luteo, semine lato, aliis Seseli peloponesiacum. Bauh. *hist. III. part. 2. n. 35.*
Loc. In agro *Nicaeensi. Perennis.*

3. ALA MARGINALI, ET DORSALI

ANGELICA. Linn. *gen. n. 309. syst. n. 344.* Tourn. *tab. 167.*

Semen alatum duabus alis marginalibus dorso tristriato, striis alatis abscissis.

1308 ANGELICA arcangelica.
Icon. Taur. Vol. XIV. tab. 53.
Angelica foliorum impari lobato. Linn. *spec. p. 360.* Crantz. *class. umbell. p. 65.*
Angelica foliis duplicato-pinnatis, ovato-lanceolatis serratis. Hall. *hist. tom 1. n. 807.*
Angelica sativa. Bauh. *pin. 155.* Garid. *aix. tab. 32.*
Angelica major. Dod. *pempt. 318.*

Fig. 3 - The treatment of "SELINUM Carvifolia Chabraei" in the *Flora pedemontana* by Allioni (1785); the author makes a precise reference to the name already employed by Crantz.

Dichoropetalum nebrodense (Guss.) Soldano, Galasso & Banfi, **comb. nov.** (bas.: *Pteroselinum nebrodense* Guss., *Fl. Sicul. Syn.*, 1: 356. 1843 [1842 publ. 1843]) (≡ *Holandrea nebrodensis* (Guss.) Banfi, Galasso & Soldano ≡ *Peucedanum nebrodense* (Guss.) Strobl)

Dichoropetalum schottii (Besser ex DC.) Pimenov & Kljuykov (≡ *Peucedanum schottii* Besser ex DC. ≡ *Holandrea schottii* (Besser ex DC.) Reduron, Charpin & Pimenov)

It is also noted that, contrary to what is commonly stated, the author of the basionym is not Besser, but Besser ex DC. (ICBN, art. 46.4: McNeill *et al.*, 2006).

Furthermore, the following combination is deemed necessary (cfr. Spalik *et al.*, 2004).

Dichoropetalum caucasicum (M.Bieb.) Soldano, Galasso & Banfi, **comb. nov.** (bas.: *Selinum caucasicum* M.Bieb., *Fl. Taur.-Caucas.*, 1: 213. 1808) (≡ *Holandrea caucasica* (M.Bieb) Spalik, Reduron & S.R.Downie ≡ *Peucedanum caucasicum* (M.Bieb.) K.Koch ≡ *Cervaria caucasica* (M.Bieb) Pimenov)

Ficaria

The phylogenetic studies carried out by means of cpDNA restriction sites (Johansson, 1998) and the ITS and cpDNA sequences (Hörandl *et al.*, 2005; Paun *et al.*, 2005a; Paun *et al.*, 2005b; Lehnebach *et al.*, 2007; Emadzade *et al*., 2011) demonstrate the need to separate some of the genera related to *Ranunculus*, including *Ceratocephala*, *Ficaria* and *Myosurus* of the Italian flora. In particular, *Ficaria* is substantiated by obvious synapomorphies: achenes with an elongate cuneate base and rudimentary beak, three sepals, strongly dimorphic roots and only one cotyledon (Förster, 1997). Moreover, *Batrachium*, although monophyletic, is nested within *Ranunculus* s.s.

Ficaria verna is a very diversified species and in Europe five variants have been indicated, that are generally treated at the rank of subspecies (Tutin & Akeroyd, 1993; Sell, 1994; Stace, 2010). Nevertheless, taking into consideration the evident and defined macrocharacters, such as the presence/absence of axillary bulbils, perianth size, development of flowering stems, presence/absence of leaves on the latter, we prefer to adopt specific rank, also taking account of the existence, even if only partial, of a reproductive barrier.

The following species are present in Italy.

Ficaria calthifolia Rchb. (≡ *Ranunculus calthifolius* (Rchb.) Jord. ≡ *Ficaria verna* Huds. subsp. *calthifolia* (Rchb.) Nyman ≡ *Ranunculus ficaria* L. subsp. *calthifolius* (Rchb.) Arcang.)

Tetraploid, hexaploid (Soó & Borhidi, 1964) and diploid (Pogan & Wcislo, 1973), lacking axillary bulbils, with small flowers, short flowering stems and leaves thickened at the base.

Ficaria fertilis (Lawalrée ex Laegaard) Galasso, Banfi & Soldano, **comb. nov., stat. nov.** (bas.: *Ranunculus ficaria* L. subsp. *fertilis* Lawalrée ex Laegaard, *Nordic J. Bot.*, 20 (5): 526. 2001) (≡ *Ficaria verna* Huds. subsp. *fertilis* (Lawalrée ex Laegaard) Stace = *Ficaria verna* Huds. subsp. *verna* auct.)

Diploid, lacking axillary bulbils, with small flowers and sexual reproduction (cfr. Pogan & Wcislo, 1973; Lægaard, 2001). For the authorship of the basionym see Stace (2009).

Ficaria grandiflora Robert (≡ *Ranunculus ficariiformis* F.W.Schultz ≡ *Ranunculus ficaria* L. subsp. *ficariiformis* (F.W.Schultz) Rouy & Foucaud ≡ *Ficaria verna* Huds. subsp. *ficariiformis* (F.W.Schultz) Quézel & Santa, comb. inval. ≡ *Ficaria verna* Huds. subsp. *ficariiformis* (F.W.Schultz) B.Walln.)

Tetraploid, with axillary bulbils and large flowers.

Ficaria verna Huds. (≡ *Ranunculus ficaria* L. subsp. *ficaria* = *Ranunculus ficaria* L. subsp. *bulbilifer* Lambinon ≡ *Ficaria verna* Huds. subsp. *bulbifera* Á.Löve & D.Löve ≡ *Ficaria bulbifera* (Á.Löve & D.Löve) Holub)

Tetraploid, with axillary bulbils, small flowers and almost completely vegetative reproduction (cfr. Pogan & Wcislo, 1973; Lægaard, 2001). As pointed out by Lægaard (2001) the type of *Ranunculus ficaria* is that drawn by Benson (1954) and corresponds to the bulbilliferous plant: Sell (1994) had already rejected the choice of Benson and had reassigned the type of this species to a specimen lacking bulbils; nevertheless, there are no reasons for accepting that rejection.

The following new combination is deemed necessary for the European flora.

Ficaria chrysocephala (P.D.Sell) Galasso, Banfi & Soldano, **comb. nov., stat. nov.** (bas.: *Ranunculus ficaria* L. subsp. *chrysocephalus* P.D.Sell, *Bot. J. Linn. Soc.*, 106 (2): 117. 1991) (≡ *Ficaria verna* Huds. *subsp. chrysocephala* (P.D.Sell) Stace)

Tetraploid, lacking axillary bulbils and with large flowers.

Hippophaë gr. *rhamnoides*

The genus *Hippophaë* has been the subject of genetic studies based on RAPDs (Bartish *et al.*, 2000), cpDNA together with morphological data (Bartish *et al.*, 2002) and ITS (Sun *et al.*, 2002). The 9 taxa into which *H. rhamnoides* is subdivided form a monophyletic group, even if not well supported, which, according to the authors, justifies their treatment at subspecies rank. Alternatively, given that the subspecies *yunnanensis* and *sinensis*, based only on the cpDNA, are connected to other species, the latter may be considered at species rank; nevertheless Bartish *et al.* (2000, 2002), Sun *et al.* (2002) and Lian *et al.* (2003) prefer to treat them as subspecies.

In any case these diverse taxa show distinct geographic distributions (Bartish *et al.*, 2000) and the existence of a complete gene flow between them has not been demonstrated; therefore, we prefer to consider them all at species rank, similarly to Rivas Martinez *et al.* (2002) and Tzvelev (2002).

The following species is present in Italy.

Hippophaë fluviatilis (Soest) Rivas Mart. (≡ *Hippophaë rhamnoides* L. subsp. *fluviatilis* Soest ≡ *Hippophaë fluviatilis* (Soest) G.H.Loos, comb. superfl.)

In a recent nomenclatural paper Loos (2010) created some superfluous combinations, including this one.

Furthermore the following new combinations are deemed necessary.

Hippophaë carpatica (Rousi) Banfi, Galasso & Soldano, **comb. nov.**, **stat. nov.** (bas.: *Hippophaë rhamnoides* subsp. *carpatica* Rousi, *Ann. Bot. Fenn*., 8 (3): 205. 1971)

Hippophaë wologensis (Y.S.Lian, K.Sun & X.L.Chen) Banfi, Galasso & Soldano, **comb. nov.**, **stat. nov.** (bas.: *Hippophaë rhamnoides* subsp. *wologensis* Y.S.Lian, K.Sun & X.L.Chen in Y.Lian, X.Chen K.Sun & R.Ma, *Novon.*, 13 (2): 200. 2003)

Malva

As already discussed in the previous contribution of this series of notes (Banfi *et al.*, 2005), the genus *Lavatera* is to be included within *Malva*, with the exception of *Navaea phoenicea* (Vent.) Webb & Berthel. (≡ *Lavatera phoneicea* Vent. ≡ *Malva phoenicea* (Vent.) Alef.). The species of *Althaea* L. sect. *Hirsutae* Iljin

ex Olyan. & Tzvelev (Escobar García *et al.*, 2004), included within the genus *Dinacrusa* by Krebs (1994), should also be placed within *Malva*. Confirmation of the latter is found in the recent study by Escobar García *et al.* (2009) where in the *Althaea* sect. *Hirsutae* clade *Malva cretica* subsp. *althaeoides* is nested. This assignment, though partially accepted by Molero Briones & Montserrat Martí (2005, 2007) and Hill (2009), who however maintain *Lavatera* with a circumscription other than classical, has been fully accepted by Davis (2010) and Stace (2010).

Clarification of the following nomenclatural points for the Italian flora are deemed necessary, including also two new combinations.

Malva arborea (L.) Webb & Berthel. (≡ *Lavatera arborea* L. = *Lavatera veneta* Mill. ≡ *Malva veneta* (Mill.) Soldano, Banfi & Galasso = *Lavatera eriocalyx* Steud. ≡ *Malva eriocalyx* (Steud.) Molero & J.M.Monts.)

The binomial of Steudel (1856) reviewed by Molero Briones & Montserrat Martí (2005) is later than the basionym of our combination, as subsequently reported by the same authors (Molero & Montserrat, 2006). In any case the name *Malva arborea* A.St.-Hil. was never published (see note in ipni: http://www.ipni.org, last access 3rd february 2011; Hinsley, in litt. 2 May 2008) being a *sphalma typographicum* (misprint) in Index Kewensis: the cited page (*Fl. Bras. Merid. (A. St.- Hil.)*., 1: 215. 1827.) contains no reference to this binomial. Accordingly there are no further blocks to the transfer of the linnean epithet to the genus *Malva*.

Malva multiflora (Cav.) Soldano, Banfi & Galasso (≡ *Malope multiflora* Cav. = *Lavatera cretica* L. ≡ *Malva pseudolavatera* Webb & Berthel.)

The binomial by Webb & Berthelot (1836) reviewed by Molero Briones & Montserrat Martí (2005), Hill (2009) and Stace (2010) is still later than the basionym of our combination.

Malva pallescens (Moris) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Lavatera pallescens* Moris, *Fl. Sardoa*, 1: 301. 1837)(≡ *Lavatera triloba* L. subsp. *pallescens* (Moris) Nyman ≡ *Lavatera triloba* L. var. *pallescens* (Moris) Baker)

Recently, Escobar García *et al.* (2010) have shown that this taxon, commonly regarded as synonymous to *M. minoricensis* (Cambess.) J.J.Rodr., is indeed distinct and endemic to Sardinia. In our opinion, it deserves specific rank.

Malva punctata (All.) Alef. (≡ *Lavatera punctata* All. ≡ *Malva punctata* (All.) G.H.Loos, comb. superfl.)

In a recent paper Loos (2010) created some superfluous combinations, including this one.

Malva setigera Schimp. & Spenn. (≡ *Althaea hirsuta* L., non *Malva hirsuta* Ten. nom. illeg., nec *Malva hirsuta* C.Presl ≡ *Althaea hispida* Moench, nom. illeg.)

Malva stenopetala (Coss. & Durieu ex Batt.) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Lavatera stenopetala* Coss. & Durieu ex Batt. in Batt. & Trab., *Fl. Algerie*, 1: 113. 1888)(= *Lavatera plazzae* Atzei ≡ *Malva plazzae* (Atzei) Soldano, Banfi & Galasso)

The taxon described from Sardinia (Atzei, 1995) as *Lavatera plazzae* should be considered a synonym of this species from Algeria (Molero Briones & Montserrat Martí, 2007).

Malva subovata (DC.) Molero & J.M.Monts. (≡ *Lavatera subovata* DC. = *Lavatera maritima* Gouan = *Malva africana* Soldano, Banfi & Galasso, nom. illeg.

[published as '*Malva africana* (Cav.) Soldano, Banfi & Galasso'] ≡ *Lavatera africana* Cav., nom. illeg., non *Lavatera africana* Mill. [≡ *Malva africana* (Mill.) Steud.])

As indicated by Molero & Montserrat (2006), the epithet of Cavanilles (1788) reviewed in our previous contribution (Banfi *et al.*, 2005) is not available as it is a later homonym.

Malva subovata (DC.) Molero & J.M.Monts. subsp. ***subovata***

Malva subovata (DC.) Molero & J.M.Monts. subsp. ***bicolor*** (Rouy) Iamonico (≡ *Lavatera bicolor* Rouy ≡ *Lavatera maritima* Gouan subsp. *bicolor* (Rouy) Rouy ≡ *Malva africana* Soldano, Banfi & Galasso subsp. *bicolor* (Rouy) Soldano, Banfi & Galasso, comb. illeg.)

Malva trimestris (L.) Salisb. (≡ *Lavatera trimestris* L. ≡ *Malva trimestris* (L.) G.H.Loos, comb. superfl.)

In a recent paper Loos (2010) created some superfluous combinations, including this one.

Finally the following combinations and notes are deemed necessary for the European and Mediterranean flora.

Malva bertramii (Post & Beauverd) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Althaea bertramii* Post & Beauverd in Dinsm., *Pl. Post. Dinsm.*, 1: 4. 1932)

Malva durieui Spach (≡ *Lavatera mauritanica* Durieu [1847], non *Malva mauritanica* Spreng. [1826]= *Lavatera davaei* Cout. ≡ *Lavatera mauritanica* Durieu subsp. *davaei* (Cout.) Cout.)

Based on the revision by Valdés (1996) *Lavatera mauritanica*, described from north-west Africa, and *L. davaei*, from the Iberian Peninsula, should be placed in synonymy; the correct epithet in *Malva* is *durieui*, as highlighted by Juan & Crespo (2011).

Malva longiflora (Boiss. & Reut.) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Althaea longiflora* Boiss. & Reut., *Diagn. Pl. Nov. Hisp.*: 9. 1842)

Malva ludwigii (L.) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Althaea ludwigii* L., *Mant. Pl.*: 98. 1767)

Malva maroccana (Batt. & Trab.) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Lavatera punctata* All. var. *maroccana* Batt. & Trab., *Bull. Soc. Hist. Nat. Afrique N.*, 9: 14. 1918) (≡ *Lavatera maroccana* (Batt. & Trab.) Maire)

Malva oblongifolia (Boiss.) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Lavatera oblongifolia* Boiss., *Notice Abies pinsapo*: 9. 1838)

Malva valdesii (Molero & J.M.Monts.) Soldano, Banfi & Galasso, **comb. nov.** (bas.: *Lavatera valdesii* Molero & J.M.Monts., *Bot. J. Linn. Soc.*, 153 (4): 446. 2007)

Phelipanche

As already discussed in detail in the previous contribution of this series of notes (Banfi *et al.*, 2005), *Phelipanche* should be segregated from the genus *Orobanche* as was recently recognised also by Carlón *et al.* (2005, 2008), Foley (2007), but not by Pujadas Salvà (es. Pujadas-Salvà & Crespo, 2004; Pujadas Salvà, 2006; Pujadas Salvà *et al.*, 2007) and Domina (2009, 2010). According to Carlón *et al.* (2008) further molecular analysis are certainly required to clarify the Orobanchaceae's phylogeny but not to resolve the question of separation into two genera, that is already highly supported by differences in morphological, caryological and molecular data; the incongruities between the plastidial and nuclear data are surely due to horizontal gene transfer (Park *et al.*, 2007).

Two chorological notes are deemed necessary for the Italian flora.

Phelipanche olbiensis (Coss.) Carlón, G.Gómez, M.Laínz, Moreno Mor., Ó.Sánchez & Schneew. (≡ *Phelypaea olbiensis* Coss. ≡ *Orobanche olbiensis* (Coss.) Nyman) (records from Sicily need confirmation)

A Mediterranean species similar to *P. mutelii* (F.W.Schultz) Reut. and *P. rosmarina*, recently reviewed by Pujadas Salvà & Crespo Villalba (2001, 2004), Pujadas Salvà (2006) and Carlón *et al.* (2008), and identified with certainty only for Spain, France and Greece. In Italy it was recorded in Sicily near Palermo by Lojacono Pojero (1904); this record attributed to *O. mutelii* by Giardina *et al.* (2007), according Pujadas Salvà & Crespo Villalba (2001) needs confirmation, altough Carlón *et al.* (2008) consider it to be very likely.

Phelipanche rosmarina (Beck) Banfi, Galasso & Soldano (≡ *Orobanche rosmarina* Beck = *Orobanche mariana* A.Pujadas) (records from Liguria and Tuscany are reliable)

Not cited in Flora d'Italia by Pignatti (1982), in the Italian Checklist by Conti *et al.* (2005) it is recorded as a taxon of doubtful value, present in Italy but with a distribution to be defined. The record is derived from Med-Checklist (Greuter *et al.*, 1989), which repeated the observations by Beck-Mannagetta (1930) for Liguria and the Tuscan Archipelago. According to Foley (2001a, 2001b) and Pujadas Salvà *et al.* (2005) only the Iberian records may be reliable, the others, in relation to the Mediterranean area including Italy, being probably erroneous and due to the simple combination of the host plant *Rosmarinus officinalis* L. Later, Carlón *et al.* (2008) reviewed the problem and extended its distribution throughout western Mediterranean basin from Croatia and Algeria to Portugal, considering reliable literature data of Beck-Mannagetta (1930). *O. mariana* (Pujadas Salvà, 2007) is shown to be synonyms of *Ph. rosmarina* by Carlón *et al.* (2008).

Portulaca* gr. *oleracea

Portulaca oleracea s.l. includes numerous taxa of diverse ploidy level, differentiated on the basis of seed morphology; these are described at subspecies rank (Danin *et al.*, 1979). This treatment, even if ignored by successive Floras, including Flora d'Italia (Pignatti, 1982) and Flora Europaea (Walters, 1993), was employed by Med-Checklist (Greuter *et al.*, 1989) and in other works, such as Flora Iberica (Danin, 1990), Brisse & Kerguélen (1994) and Kerguélen (1999). Several of these subspecies, also with the same ploidy level, coexist without crossbreeding as they are cleistogamous (Danin *et al.*, 1979; Danin, 1990). Therefore Ricceri & Arrigoni (2000), Danin & Reyes-Betancort (2006) and Danin *et al.*, (2008) retained the rank of species as the more appropriate; this was the choice adopted also in the Checklist of the Italian Flora by Conti *et al.* (2005) and several new species were described recently (Danin & Reyes-Betancort, 2006; Danin *et al*., 2008; Domina & Raimondo, 2009).

Portulaca. 'Sativa' (≡ *Portulaca oleracea sativa* Haw. ≡ *Portulaca oleracea* L. subsp. *sativa* (Haw.) Čelak. ≡ *Portulaca oleracea* L. var. *sativa* (Haw.) DC.) is a culton (a product of domestication) which probably originated in the Old World; its crop wild relative (CWR) is still unknown (Danin *et al*., 2008). It was once cultivated as a vegetable in Italy and locally gave rise to some adventitious casuals.

A new name and a nomenclatural note are deemed necessary.

Portulaca daninii Galasso, Banfi & Soldano, **nom. nov.** (bas.: *Portulaca oleracea* L. subsp. *tuberculata* Danin & H.G.Baker in Danin, I.Baker & H.G.Baker, *Israel J. Bot.*, 27 (3-4): 194. 1979 [1978 publ. 1979] ≡ *Portulaca tuberculata* (Danin & H.G.Baker) Danin, *Lagascalia*, 26: 76. 2006, comb.

illeg., non *Portulaca tuberculata* León, *Contr. Ocas. Mus. Hist. Nat. Colegio "De La Salle"*, 9: 3. 1950)

Danin (Danin & Reyes-Betancort, 2006) incurred in homonymy, that is here corrected by the epithet named above.

Portulaca macrantha Ricceri & Arrigoni (≡ *Portulaca oleracea* L. var. *macrantha* Maire [1929], non Speg. [1901], nom. illeg. ≡ *Portulaca oleracea* L. subsp. *macrantha* Maire, non var. *macrantha* Speg., nom. illeg. = *Portulaca oleracea* L. subsp. *papillatostellulata* auct., non Danin & H.G.Baker ≡ *Portulaca papillatostellulata* auct., non (Danin & H.G.Baker) Danin)

This binomial is to be considered a new name and not a new combination, as the basionym is a later homonym, and it is not a synonymous of *P. papillatostellulata* (Domina *et al.*, 2010).

Rhaponticum

For the circumscription of this genus see Hidalgo *et al.* (2006). Regarding the use of the name *Rhaponticum* Vaill., which has priority with respect to *Stemmacantha* Cass., refer to Greuter (2003) and Greuter *et al.* (2005). Recently this name was the subject of proposals for retention and/or rejection (Brummitt, 2008; Greuter, 2008a, 2008b); it seems most likely that the valid name to be utilised for this genus remains *Rhaponticum* (possibly with different authors) and that, in any case, the current valid name is still *Rhaponticum* Vaill. until a decision is taken by the Committee for Nomenclature.

Apart from the Mediterranean species *R. coniferum* and the exotic *R. repens*, the other 4 taxa recorded in Italy are alpine, considered at subspecies rank and placed within two species. However, they are quite distinct both at a morphological and chorological level, hence it seems more suitable to attribute them to species rank. Two of these taxa have been considered in a phylogenetic analysis of *Rhaponticum* based on plastidial and nuclear DNA sequences (Hidalgo *et al.*, 2006), even if not identifiable with certainty due to nomenclatural confusion they presumably correspond to *R. hemeralpion* and *R. scariosum*; these do not constitute a monophyletic group, thus demonstrating that they have different evolutionary and geographic histories and therefore merit species rank.

The following species are present in Italy.

Rhaponticum bicknellii (Briq.) Banfi, Galasso & Soldano, **comb. nov.** (bas.: *Centaurea rhapontica* L. var. *bicknellii* Briq., *Monogr. Centaurées Alpes Marit.*: 56. 1902) (≡ *Rhaponticum heleniifolium* Godr. & Gren. subsp. *bicknellii* (Briq.) Greuter)

Centaurea rhapontica L. var. *lyrata* Bellardi [*App. Fl. Pedem.*: 40. 1792] is most probably also a synonym of this taxon, as may be deduced from two leaves with decidedly pinnate margins from the Biroli Herbarium (TO!), whose specimens are labelled in the handwriting of Bellardi; there is a transcription of the locality indicated in the protologue (Limone Piemonte), and the species has recently been recollected in this area (Bellone, 2006; MSNM!).

It should be noted that the specific combination *Rhaponticum lyratum* (Bellardi) Nyman [*Consp. Fl. Eur.*, 2: 416. 1879], recorded in IPNI (http://www.ipni.org, last access 3rd february 2011) does not exist, as Nyman in the reference indicated provides a combination at varietal rank. Indeed, as specified by Nyman himself (1878-1882) in the Preface and confirmed by Greuter (1968), names preceded by a long dash (as in this case) refer to varieties.

Rhaponticum coniferum (L.) Greuter (≡ *Leuzea conifera* (L.) DC. ≡ *Centaurea conifera* L.)

Rhaponticum heleniifolium Godr. & Gren. (species to be excluded from the Italian flora)

Typically French species, previously widely confused with *R. hemeralpion* (Dittrich, 1984). It was recently recorded in Italy by Aeschimann *et al.*, (2004) in the province of Cuneo in Piedmont; in the Italian Checklist Bouvet *et al.* (2005) record it with doubt. However, in the same province we have only been able to observe specimens collected (by Marziano Pascale, MSNM) or photographed (Giorgio Ceffali) of the congeners *R. bicknellii* and *R. scariosum* s.s.; consequently in our opinion *R. heleniifolium* should be excluded from the Italian flora.

Rhaponticum hemeralpion Banfi, Galasso & Soldano, **nom. nov.** (bas.: *Centaurea rhapontica* L., *Sp. Pl.*, 2: 915. 1753) (≡ *Rhaponticum scariosum* Lam. subsp. *rhaponticum* (L.) Greuter = *Rhaponticum scariosum* auct., non Lam. = *Rhaponticum heleniifolium* auct., non Godr. & Gren.)

The specific epithet refers to the Eastern Alps (from Greek *heméra* = morning, east and *álpeion* = alpine).

Rhaponticum repens (L.) Hidalgo (≡ *Acroptilon repens* (L.) DC. ≡ *Centaurea repens* L.)

Alien species, recently observed as a casual in the province of Bolzano (Wilhalm *et al.*, 2005).

Rhaponticum scariosum Lam. (≡ *Rhaponticum scariosum* Lam. subsp. *lamarckii* (Dittr.) Greuter)

Senecio oberprieleri G.H.Loos (≡ *Senecio germanicus* Wallr. subsp. *glabratus* Herborg, non *Senecio glabratus* Hook. & Arn. ≡ *Senecio herborgii* Soldano, Galasso & Banfi, non *Senecio* ×*herborgii* C.Jeffrey, nom. illeg. ≡ *Senecio germanicoglabratus* Landolt, nom. illeg. ≡ *Senecio nemorensis* L. subsp. *glabratus* (Herborg) Oberpr.)

In the previous contribution of this series of notes (Banfi *et al.*, 2005) an homonymy was incurred, that is unintentionally and rightly corrected by Loos (2010, February), who preceded Landolt (Landolt *et al.*, 2010, 14 May).

Torilis* gr. *arvensis

Torilis arvensis is traditionally subdivided into 4 subspecies, sometimes considered as species, plus subsp. *recta* Jury (Jury, 1996). However, these are all quite distinct both on a morphological and genetic level (Lee & Downie, 2000; Lee *et al.*, 2001); it seems that a treatment at species rank is more appropriate. The keys provided by Jury (1996) are useful for their identification.

The following species are present in Italy.

Torilis elongata (Hoffmanns. & Link) Samp. (≡ *Torilis arvensis* (Huds.) Link subsp. *elongata* (Hoffmanns. & Link) Cannon)

Torilis helvetica (Jacq.) C.C.Gmel. (≡ *Caucalis helvetica* Jacq. = *Torilis arvensis* (Huds.) Link subsp. *recta* Jury = *Torilis arvensis* auct., non (Huds.) Link)

In central and southern Europe (including Italy), northern Africa and southwestern Asia it substitutes the true *Torilis arvensis* (≡ *Torilis infesta* Wallr.

[1822], non (L.) Clairv. [1811], nom. illeg. = *Torilis infesta* Hoffm. [1814], non (L.) Clairv. [1811], nom. illeg. = *Torilis divaricata* Moench), from England, France and Switzerland (Jury, 1996).
Contrary to what is stated by Kerguélen (1999), *T. helvetica* by Gmelin (1805) is not an illegitimate homotypic name for *T. arvensis* s.s., as the combination is based on a legitimate basionym (Jacquin, 1776) (ICBN, art. 52.3: McNeill *et al.*, 2006). Therefore it should be applied to this species and should be cited as (Jacq.) C.C.Gmel., similar to the treatment by Jury (2003) in Flora Iberica.

Torilis infesta (L.) Clairv. [1811], non *Torilis infesta* Hoffm. [1814], nec *Torilis infesta* Wallr. [1822] (≡ *Scandix infesta* L. = *Torilis chlorocarpa* Spreng. = *Torilis radiata* Moench = *Torilis neglecta* Spreng., nom. illeg. = *Torilis arvensis* (Huds.) Link subsp. *neglecta* (Rouy & E.G.Camus) Thell. ≡ *Torilis helvetica* (Jacq.) C.C.Gmel. proles *neglecta* Rouy & E.G.Camus)

Torilis purpurea (Ten.) Guss. (≡ *Torilis arvensis* (Huds.) Link subsp. *purpurea* (Ten.) Hayek)

Triticum* ×*requienii Ces., Pass. & Gibelli (≡ *Aegilops* ×*triticoides* Req. ex Bertol., non Link, nom. illeg. ≡ *Aegilotriticum* ×*requienii* (Ces., Pass. & Gibelli) P.Fourn. ≡ *Aegilotriticum* ×*requienii* (Ces., Pass. & Gibelli) Veldkamp, comb. superfl.)
The adoption of this combination is rendered necessary due to the submersion of *Aegilops* within *Triticum*, which here we adopt definitely similarly to the Checklist of the Italian Flora (Banfi, 2005), to the treatment in the new Flora d'Italia (Pignatti, in litt.), and subsequent to phylogenetic-molecular contributions in recent years, in particular those by Yamane & Kawahara (2005) and Golovnina *et al.* (2007). In the cited works it is clear that the genus *Aegilops* is not a true unit and that its species remain inextricably nested within *Triticum* in all topologies. On the other hand it is sufficient to consider how often taxa attributed to *Aegilops* are used in the same genesis of cultivated wheat, for demonstrating the artificiality of a separation from *Triticum*. The epithet *triticoides* by Bertoloni, adopted by the majority of authors, is illegitimate, therefore to be replaced as indicated (Veldkamp, 2009).

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References

Aeschimann D., Lauber K., Moser D. M. & Theurillat J.-P., 2004 – Flora alpina. *Haupt Verlag*, Bern.

Albach D. C., Martínez-Ortega M. M., Fischer M. A. & Chase M. W., 2004 – A new classification of the tribe Veroniceae - problems and a possible solution. *Taxon*, Utrecht, 53 (2): 429-452.

Allioni C., 1785 – Flora pedemontana sive enumeratio methodica stirpium indigenarum Pedemontii. *Excudebat Ioannes Michael Briolus R. Scientiarum Academiæ impressor et bibliopola,* Augustae Taurinorum, 2.

Atzei A. D., 1995 – *Lavatera plazzae* sp. nov. (Malvaceae) di Sardegna. *Boll. Soc. Sarda Sci. Nat.*, Sassari, 30 (1994/95): 151-157.

Banfi E., 2005 – Poaceae. In: An Annotated Checklist of the Italian Vascular Flora. Conti F., Abbate G., Alessandrini A. & Blasi C. (eds.). *Palombi Editori*, Roma: 179.

Banfi E. & Galasso G., 2008 – New combinations in *Vachellia* Wight & Arn., formerly *Acacia* Mill. s.s. (Fabaceae). *Atti Soc. it. Sci. nat. Museo civ. Stor. nat. Milano*, Milano, 149 (1): 149-150.

Banfi E., Galasso G. & Soldano A., 2005 – Notes on systematics and taxonomy for the Italian vascular flora. 1. *Atti Soc. it. Sci. nat. Museo civ. Stor. nat. Milano*, Milano, 146 (2): 219-244.

Bartish I. V., Jeppsson N., Bartish G. I., Lu R. & Nybom H., 2000 – Inter- and intraspecific genetic variation in *Hippophae* (Elaeagnaceae) investigated by RAPD markers. *Pl. Syst. Evol.*, Wien, 225 (1-4): 85-101.

Bartish I. V., Jeppsson N., Bartish G. I., Nybom H. & Swenson U., 2002 – Phylogeny of *Hippophae* (Elaeagnaceae) Inferred from Parsimony Analysis of Chloroplast DNA and Morphology. *Syst. Bot.*, Chicago, 27 (1): 41-54.

Beck-Mannnagetta G., 1930 – IV. 261. Orobanchaceae. In: Das Pflanzenreich. Regni vegetabilis conspectus. Engler A. (ed.). *W. Engelmann*, Leipzig.

Bellone G., 2006 – Nota floristica piemontese n. 23. *Rhaponticum heleniifolium* Gren. & Godr. subsp. *bicknellii* (Briq.) Greuter (Compositae). In: Note floristiche piemontesi n. 13-47. Selvaggi A., Soldano A. & Pascale M. (eds.). *Riv. Piem. St. Nat.*, Carmagnola, 27: 433.

Benson L., 1954 – Supplement to the treatise on the North American Ranunculi. *Am. Midl. Nat.*, Notre Dame, 52: 328-369.

Bisby F. A., 1981 – Tribe 32. Genisteae (Adans.) Benth. In: Advances in Legume Systematics. Polhil R. M. & Raven P. H. (eds.). *Royal Botanic Gardens*, Kew, 1: 409-425.

Bouvet D., Montacchini F. & Siniscalco C., 2005 – Piemonte. In: An Annotated Checklist of the Italian Vascular Flora. Conti F., Abbate G., Alessandrini A. & Blasi C. (eds.). *Palombi Editori*, Roma: 152.

Brisse H. & Kerguélen M., 1994 – Code informatise de la Flore de France. *Bulletin de l'Association d'informatique appliquee a la botanique*, Strasbourg, 1: i-vi + 1-128.

Brummitt R. K., 2008 – Proposal to add the 1754–1756 German translation of S. Vaillant, *Établíssement de noveaux caractères de trios familles*, 1719–1725, to "Opera utique oppressa". *Taxon*, Utrecht, 57 (2): 663.

Carlón L., Gómez Casares G., Laínz M., Moreno Moral G., Sánchez Pedraja Ó. & Schneeweiss G. M., 2005 – Más, a propósito de algunas *Orobanche* L. y *Phelipanche* Pomel (*Orobanchaceae*) del oeste del Paleártico. *Doc. Jard. Bot. Atl.*, Gijón, 3.

Carlón L., Gómez Casares G., Laínz M., Moreno Moral G., Sánchez Pedraja Ó. & Schneeweiss G. M., 2008 – Más, a propósito de algunas *Phelipanche* Pomel, *Boulardia* F.W.Schultz y *Orobanche* L. (*Orobanchaceae*) del oeste del Paleártico. *Doc. Jard. Bot. Atl.*, Gijón, 6.

Cavanilles A. I., 1788 – Quinta dissertatio botanica. De Sterculia, Kleinhovia, Ayenia, Buttneria, Bombace, Adansonia, Crinodendro, Aytonia, Malachodendro, Stewartia et Napaea. Accedit praecedentium dissertationum Mantissa. 36 Tabulis aere incisis ornata. *F. Amb. Didot*, Parisiis.

Conti F., Abbate G., Alessandrini A. & Blasi C. (eds.), 2005 – An Annotated Checklist of the Italian Vascular Flora. *Palombi Editori*, Roma.

Crantz H. I. N., 1766 – Institutiones rei herbariae iuxta nutum naturae digestae ex habitu. *Impensis I. P. Kraus bibliopolae viennensis*, Vienna, 2.

Crantz H. J. N., 1767 – Stirpium Austriarum. *Impensis J. P. Kraus*, Lipsiæ, 3.

Cristofolini G. & Troìa A., 2006 – A reassessment of the sections of the genus *Cytisus* Desf. (Cytiseae, Leguminosae). *Taxon*, Utrecht, 55 (3): 733-746.

Czerepanov S. K., 1995 – Vascular Plants of Russia and Adjacent States (the former USSR). *Cambridge University Press*, Cambridge, New York, Melbourne.

Danin A., 1990 – 1. Portulaca L. In: Flora Iberica. Plantas vasculares de la Penisula Ibérica y Islas Baleares. Castroviejo S., Laínz M., López Gonzáles G., Montserrat P., Muños Garmendia F., Paiva J. & Villar L. (eds.). *Real Jardín Botánico*, Madrid, 2 (Platanaceae-Plumbaginaceae (partim)): 465-469.

Danin A. & Reyes-Betancort J. A., 2006 – The status of Portulaca oleracea L. in Tenerife, the Canary Islands. *Lagascalia*, Sevilla, 26: 71-81.

Danin A., Baker I. & Baker H.G., 1979 – Cytogeography and taxonomy of the *Portulaca oleracea* L. polyploid complex. *Isr. J. Bot.*, Jerusalem, 27 (1978, 3-4): 177-211.

Danin A., Domina G. & Raimondo F. M., 2008 - Microspecies of the *Portulaca oleracea* aggregate found on major Mediterranean islands (Sicily, Cyprus, Crete, Rhodes). *Fl. Medit.*, Palermo, 18: 88-107.

Davis C. J. S., 2010 – *Malva aethiopica*, a new name for *Lavatera abyssinica* (Malvaceae): an endemic species of the Ethiopian Highlands. *Phytotaxa*, 13: 56-58.

Desfontaines R., 1798 – Flora Atlantica, sive historia plantarum quae in Atlante, agro tunetano et algeriensi crescunt. *C. Panckoucke*, Parisiis, 2 (6).

Dittrich M., 1984 – Neukombinationen in der Gattung Stemmacantha Cass. (Compositae) mit Bemerkungen zur Typisierung einiger ihrer Arten. *Candollea*, Genève, 39 (1): 45-49.

Domina G., 2009 – *Orobanchaceae*. In: Euro+Med Notulae, 4. Greuter W. & Raab-Straube E. von (eds.). *Willdenowia*, Berlin, 39 (2): 331.

Domina G., 2010 – Notula: 1674. In: Notulae alla checklist della flora vascolare italiana: 9 (1623-1681). Nepi C., Peccenini S. & Peruzzi L. (eds.). *Inform. Bot. Ital.*, Firenze, 42 (1): 382-383.

Domina G. & Raimondo F. M., 2009 - A new species in the *Portulaca oleracea* aggregate (*Portulacaceae*) from the Island of Soqotra (Yemen). *Webbia*, Firenze, 64 (1): 9-12.

Domina G., Schäfer P. A. & Danin A., 2010 - Typification and taxonomic status of *Portulaca macrantha* (*Portulacaceae*). *Fl. Medit.*, Palermo, 20: 187-191.

Emadzade K., Gehrke B., Linder H. P. & Hörandl E., 2011 - The biogeographical history of the cosmopolitan genus *Ranunculus* L. (Ranunculaceae) in the temperate to meridional zones. *Mol. Phylogenet. Evol.*, San Diego, 58 (1): 4-21.

Escobar García P., Mascia F. & Bacchetta G., 2010 – Typification of tha name *Lavatera triloba* subsp. *pallescens* (Moris) Nyman and reassessment of *L. minoricensis* Cambess. (*L. triloba* subsp. *minoricensis* comb. nov.). *Anales Jard. Bot. Madrid*, Madrid, 67 (2): 79-86.

Escobar García P., Nieto Feliner G. & Fuertes Aguilar J., 2004 – Molecular, morphological and chromosome data reveal that Althaea L. (Malvaceae) is polyphyletic. In: Plant Evolution in Mediterranean Climate Zones. AaVv. (eds.). *Proceedings of the IXth IOPB meeting, 16-19 May 2004*, Valencia.

Escobar García P., Schönswetter P., Fuertes Aguilar J., Nieto Feliner G. & Schneeweiss G. M., 2009 – Five molecular markers reveal extensive morphological homoplasy and reticulate evolution in the *Malva* alliance (Malvaceae). *Mol. Phylogenet. Evol.*, San Diego, 50 (2): 226-239.

Foley M. J. Y., 2001a – *Orobanchaceae* in the "Flora Iberica" area: new taxa, excluded taxa, and typification. *Anales Jard. Bot. Madrid*, Madrid, 58 (2000, 2): 223-233.

Foley M. J. Y., 2001b – 2. Orobanche L. In: Flora Iberica. Plantas vasculares de la Penisula Ibérica y Islas Baleares. Paiva J., Sales F., Hedge I. C., Aedo C., Aldasoro J. J., Castroviejo S., Herrero A. & Velayos M. (eds.). *Real Jardín Botánico*, Madrid, 14 (Myoporaceae-Campanulaceae): 32-72.

Foley M. J. Y., 2007 – New combinations in *Phelipanche* (*Orobanchaceae*). *Edinb. J. Bot.*, Edinburgh, 64 (2): 209-211.

Förster P., 1997 – Die Keimpflanzen der Tribus Ranunculeae DC. und der tribus Adonideae Kunth (Ranunculaceae). *Flora*, Jena, 192 (2): 133-142.

Friesen N., Fritsch R. M. & Blattner F. R., 2006 – Phylogeny and new intrageneric classification of *Allium* (Alliaceae) based on nuclear ribosomal DNA ITS sequences. *Aliso*, Anaheim, 22: 372-395.

Galasso G., Colatore A. & Kleih M., 2006 – Notula: 1246. In: Notulae alla checklist della flora vascolare italiana: 2 (1192-1266). Scoppola A. (ed.). *Inform. Bot. Ital.*, Firenze, 38 (1): 206-207.

Giardina G., Raimondo F. M. & Spadaro V., 2007 – A catalogue of plants growing in Sicily. *Bocconea*, Palermo, 20: 1-582.

Gmelin C. C., 1805 – Flora Badensis Alsatica et confinium regionum cis et transrhenana plantas a lacu bodamico usque ad confluentem mosellæ et rheni sponte nascentes exhibens secundum systema sexuale cum iconibus ad naturam delineatis. *Aul. Mülleriana*, Carlsruhæ, 1.

Golovnina K. A., Glushkov S. A., Blinov A. G., Mayorov V. I., Adkison L. R. & Goncharov N. P., 2007 – Molecular phylogeny of the genus *Triticum* L. *Pl. Syst. Evol.*, Wien, 264 (3-4): 195-216.

Greuter W., 1968 – Notulae nomenclaturales et bibliographicae 1-4. *Candollea*, Genève, 23 (1): 81-99.

Greuter W., 2003 – The Euro+Med treatment of *Cardueae* (*Compositae*) - generic concepts and required new names. Notulae ad floram euro-mediterraneam pertinentes. No. 3. *Willdenowia*, Berlin, 33 (1): 49-61.

Greuter W., 2008a – (1839–1842) Proposal to conserve the names *Leysera* against *Asteropterus*, *Volutaria* against *Amberboi*, *Rhaponticum* with a conserved type, and *Rhaponticoides* against *Bielzia* (*Compositae*). *Taxon*, Utrecht, 57 (3): 1001.

Greuter W., 2008b – Damn Vaillant? A reply to Brummitt in Taxon 57: 663. 2008, and some alternative proposals, including adding all Steinwehr's translations in Königl. Akad. Wiss. Paris Phys. Abh. 5–9. 1754–1760 to the "Opera utique oppressa". *Taxon*, Utrecht, 57 (3): 1015-1016.

Greuter W., 2009 – Notices of Publications. *Optima Newslett.*, Palermo, 38 (1-2): (1)-(78).

Greuter W., Aghababian M. & Wagenitz G., 2005 – Vaillant on *Compositae*-systematic concepts and nomenclatural impact. *Taxon*, Utrecht, 54 (1): 149-174.

Greuter W., Burdet H. & Long G., 1989 – Med-Checklist. *Conserv. et Jard. bot. de la Ville de Genève*, Genève, 4 (Dicotyledones (*Lauraceae-Rhamnaceae*)).

Hansen A. & Sunding P., 1993 – Flora of Macaronesia. Checklist of vascular plants. 4. revised edition. *Sommerfeltia*, Oslo, 17: 1-295.

Hidalgo O., Garcia-Jacas N., Garnatje T. & Susanna A., 2006 – Phylogeny of *Rhaponticum* (Asteraceae, Cardueae-Centaureinae) and Related Genera Inferred from Nuclear and Chloroplast DNA Sequence Data: Taxonomic and Biogeographic Implications. *Ann. Botany*, London, 97 (5): 705-714.

Hill S. R., 2009 – Notes on California Malvaceae including nomenclatural changes and additions to the flora. *Madroño*, San Francisco, 56 (2): 104-111.

Holub J. & Pouzar Z., 1967 – A Nomenclayural Analysis of the Generic Names of Phanerogams Proposed by F. M. Opiz in his Śeznam Rostlin Květeny České. *Folia Geobot. Phytotax.*, Praha, 2 (4): 397-428.

Hörandl E., Paun O., Johansson J. T., Lehnebach C., Armstrong T., Chen L. & Lockhart P., 2005 – Phylogenetic relationships and evolutionary traits in *Ranunculus* s.l. (Ranunculaceae) inferred from ITS sequence analysis. *Mol. Phylogenet. Evol.*, San Diego, 36 (2): 305-327.

Jacquin N. J., 1773 – Florae Austriacæ, sive plantarum selectarum in Austriæ archiducatu sponte crescentium, icones, ad vivum coloratæ, et descriptionibus, ac synononymis illustratæ. *Typis Leopoldi Joannis Kaliwoda, Aulæ imperialis typographi***,** Viennæ, 1.

Jacquin N. J., 1776 – Hortus botanicus Vindobonensis, seu Plantarum rariorum, quæ in Horto Botanico Vindobonensi, augustissimæ Mariæ Theresiæ munificentia regia in universitatis patriæ excellens ornamentum publicamque utilitatem exstructo, coluntur, icones coloratæ et succinctæ descriptiones. *J. M. Gerold***,** Vindobonæ, 3 (1).

Johansson J. T., 1998 – Chloroplast DNA restriction site mapping and the phylogeny of *Ranunculus* (*Ranunculaceae*). *Pl. Syst. Evol.*, Wien, 213 (1-2): 1-19.

Juan A. & Crespo M. B., 2011 - A new nomenclatural combination in *Malva* L. (*Malvaceae*). *Flora Montib*., Valencia, 48: 3-6.

Jury S. L., 1996 – 20. A new subspecies of Torilis arvensis (Hudson) Link. *Lagascalia*, Sevilla, 18 (2): 282-285.

Jury S. L., 2003 – 12. Torilis Adans. In: Flora Iberica. Plantas vasculares de la Penisula Ibérica y Islas Baleares. Nieto Feliner G., Jury S. L. & Herrero A. (eds.). *Real Jardín Botánico*, Madrid, 10 (Araliaceae-Umbelliferae): 84-92.

Kerguélen M., 1999 – Index synonymique de la Flore de France. Consultazione all'indirizzo <http://www2.dijon.inra.fr/flore-france/> (last access 3rd february 2011)

Krebs G., 1994 – Taxonomische Untersuchungen in der Subtribus Malvinae. II. *Dinacrusa*. *Feddes Repert.*, Berlin, 105 (5-6): 299-315.

Lægaard S., 2001 – Validation of Ranunculus ficaria ssp. fertilis Clapham ex Lægaard (Ranunculaceae). *Nordic J. Bot.*, Copenhagen, 20 (2000, 5): 525-526.

Lamarck J. B. A. P. de Monnet de & Candolle A.P. de, 1805 – Flore Française, ou descriptions succinctes de tuoute les plantes qui croissent naturellement en France, disposées selon une nouvelle Méthode d'Analyse, Et précédées par un Exposé des Principes élémentaires de la Botanique. *Fonds de H. Agasse*, Paris. 3 ed., 4 (2).

Landolt E., Bäumler B., Ehrhardt A., Hegg O., Klötzli F., Lämmler W., Nobis M., Rudmann-Maurer K., Schweingruber F. H., Theurillat J.-P., Urmi E., Vust M. & Wohlgemuth T., 2010 – Flora Indicativa: Okologische Zeigerwerte und biologische Kennzeichen zur Flora der Schweiz und der Alpen. *Verlag Paul Haupt*, Bern.

Lee B.-Y. & Downie S. R., 2000 – Phylogenetic analysis of cpDNA restriction sites and *rps*16 intron sequences reveals relationships among Apiaceae tribes Caucalideae, Scandiceae and related taxa. *Pl. Syst. Evol.*, Wien, 221 (1-2): 35-60.

Lee B.-Y., Levin G. A. & Downie S. R., 2001 – Relationships Within the Spiny-Fruited Umbellifers (Scandiceae subtribes Daucinae and Torilidinae) as Assessed by Phylogenetic Analysis of Morphological Characters. *Syst. Bot.*, Chicago, 26 (3): 622-642.

Lehnebach C. A., Cano A., Monsalve C., McLenachan P., Hörandl E. & Lockhart P., 2007 – Phylogenetic relationships of the monotypic Peruvian genus *Laccopetalum* (Ranunculaceae). *Pl. Syst. Evol.*, Wien, 264 (1-2): 109-116.

Lian Y., Chen X., Sun K. & Ma R., 2003 – A New Subspecies of *Hippophae* (Elaeagnaceae) from China. *Novon*, St. Louis, 13 (2): 200-202.

Loos G. H., 2010 – Taxonomische Neukombinationen zur Flora Mittel- und Osteuropas, insbesondere Nordrhein-Westfalens. *Jahrb. Bochum. Bot. Vereins*, Bochum, 1: 114-133.

Lojacono Pojero M., 1904 – Flora sicula, o descrizione delle piante vascolari spontanee o indigenate in Sicilia. *Tipo-litografia S. Bizzarrilli*, Palermo, 2 (2).

McNeill J., Barrie F. R., Burdet H. M., Demoulin V., Hawksworth D. L., Marhold K., Nicolson D. H., Prado J., Silva P. C., Skog J. E., Wiersema J. H. & Turland N. J. (eds.), 2006 – International Code of Botanical Nomenclature (Vienna Code). Adopted by the Seventeenth International Botanical Congress Vienna, Austria, July 2005. *Regnum Veg.*, Königstein, 146: i-xviii + 1-568.

Molero Briones J. & Montserrat Martí J. M., 2005 – Nomenclatura de algunas especies del género *Malva* Linnaeus (*Malvaceæ*). *Fontqueria*, Madrid, 55 (38): 285-292.

Molero J. & Montserrat J. M., 2006 – Notas taxonómicas y corológicas para la flora de la Península Ibérica y el Magreb. 111. Adiciones y enmiendas nomenclaturales en el género Malva L. (Malvaceae). *Lagascalia*, Sevilla, 26: 153-155.

Molero Briones J. & Montserrat Martí J. M., 2007 – A new species of *Lavatera* Sect. Olbia (Medik.) DC. (Malvaceae) from north-east Morocco. *Bot. Journ. Linn. Soc.*, London, 153 (4): 445-454.

Nyman C. F., 1878-1882 – Conspectus floræ europææ, seu enumeratio methodica plantarum phanerogamarum Europæ indigenarum, indicatio distributionis geographicæ singularum etc. *Typis officinæ Bohlinianæ*, Örebro Sueciæ, 1-2.

Park J.-M., Manen J.-F. & Schneeweiss G. M., 2007 – Horizontal gene transfer of a plastid gene in the non-photosynthetic flowering plants *Orobanche* and *Phelipanche* (Orobanchaceae). *Mol. Phylogenet. Evol.*, San Diego, 43 (3): 974-985.

Paun O., Johansson J. T., Lehnebach C., Armstrong T., Chen L., Lockhart P. & Hörandl E., 2005a – Phylogeny and evolution of Ranunculus s.l. (Ranunculaceae). In: XVII International Botanical Congress - Abstracts. Aa.Vv. (eds.). *XVII International Botanical Congress*, Vienna: 474.

Paun O., Lehnebach C., Johansson J. T., Lockhart P. & Hörandl E., 2005b – Phylogenetic relationships and biogeography of *Ranunculus* and allied genera (Ranunculaceae) in the Mediterranean region and in the European Alpine System. *Taxon*, Utrecht, 54 (4): 911-930.

Pignatti S., 1982 – Flora d'Italia. *Edagricole*, Bologna.

Pimenov M. G., Kljuykov E. V. & Ostroumova T. A., 2007 – Critical taxonomic analysis of *Dichoropetalum*, *Johrenia*, *Zeravschania* and related genera of *Umbelliferae-Apioideae-Peucedaneae*. *Willdenowia*, Berlin, 37 (2): 465-502.

Pogan E. & Wcislo H., 1973 – Studies in *Ranunculus ficaria* L. I. Karyological analysis of *R. ficaria* L. ssp. *bulbifer* (Marsden-Jones) Lawalrée and *R. ficaria* L. ssp. *calthifolius* (Rchb.) Arc. *Acta Biol. Cracov., Bot.*, Krakow, 16 (1): 135-143.

Polhill R. M., 1976 – Genisteae (Adans.) Benth. and Related Tribes (Leguminosae). *Bot. Syst.*, 1: 143-368.

Potter D. & Freudenstein J. V., 2005 – Character-based phylogenetic Linnean classification: taxa should both ranked and monophyletic. *Taxon*, Utrecht, 54 (4): 1033-1035.

Pujadas Salvà A. J., 2006 – Notas taxonómicas y corológicas para la flora de la Península Ibérica y el Magreb. 122. Nuevas combinaciones nomenclaturales y aportaciones florísticas en el género Orobanche L. (Orobanchaceae). *Lagascalia*, Sevilla, 26: 246-248.

Pujadas Salvà A. J., 2007 – 131. *Orobanche mariana* A. Pujadas (Orobanchaceae) sp. nova para el sur de la Península Ibérica. *Acta Bot. Malac.*, Málaga, 32: 269-274.

Pujadas Salvà A. J. & Crespo Villalba M. B., 2001 – *Orobanche olbiensis* (Coss.) Nyman, taxon minusvalorado del Mediterráneo occidental. *Collect. Bot.*, Barcelona, 25 (2000, 2): 217-224.

Pujadas-Salvà A. J. & Crespo M. B., 2004 – A new species of *Orobanche* (Orobanchaceae) from south-eastern Spain. *Bot. Journ. Linn. Soc.*, London, 146 (1): 97-102.

Pujadas Salvà A. J., Plaza Arregui L., Sánchez Gullón E., Triano Muñoz E., López Martínez M., Burgarella C., Rubiales Olmedo D., Román Del Castillo B., Reyes Sepúlveda E. & Ivorra Jiménez A., 2007 – El género *Orobanche* L. (Orobanchaceae) en Andalucía. *Acta Bot. Malac.*, Málaga, 32: 91-126.

Pujadas Salvà A. J., Rubiales Olmedo D. & López Martínez M., 2005 – *Orobanche* L. (*Orobanchaceae*) sect. *Trionychon* Wallr., en Andalucía II: *Orobanche rosmarina* Beck. *Acta Bot. Malac.*, Málaga, 30: 49-54.

Ricceri C. & Arrigoni P. V., 2000 – L'aggregato di *Portulaca oleracea* L. (*Portulacaceae*) in Italia. *Parlatorea*, Firenze, 4: 91-97.

Rivas-Martínez S., Díaz González T. E., Fernández González F., Izco J., Loidi Arregui J., Mario Lousã & Penas Merino A., 2002 – Vascular plant communities of Spain and Portugal. *Itinera Geobotanica*, León, 15 (1-2).

Rouy G., 1910 – Flore de France ou descriptuion des plantes qui croissent spontanément en France, en Corse et en Alsace-Lorraine. *Les Fils d'É. Deyrolle*, Paris, 12.

Sell P. D., 1994 – *Ranunculus ficaria* L. sensu lato. *Watsonia*, London, 20 (1): 41-50.

Soldano A., Conti F., Banfi E. & Galasso G., 2005 – Nomenclatural novelties (Novità nomenclaturali). In: An Annotated Checklist of the Italian Vascular Flora. Conti F., Abbate G., Alessandrini A. & Blasi C. (eds.). *Palombi Editori*, Roma: 17-22; 27-32.

Soó R. & Borhidi A., 1964 – Über einige Formenkreise der Ungarischen und Karpatischen Flora. IV. Ficaria. *Ann. Univ. Sc. Budapest., Sec. Biol.*, Budapest, 8: 297-300.

Spalik K., Reduron J.-P. & Downie S. R., 2004 – The phylogenetic position of *Peucedanum* sensu lato and allied genera and their placement in tribe Selineae (Apiaceae, subfamily Apioideae). *Pl. Syst. Evol.*, Wien, 243 (3-4): 189-210.

Stace C. A., 2009 - Eleven new combinations in the British flora. *Watsonia*, London, 27 (3): 246-248.

Stace C. A., 2010 – New flora of the British Isles. 3 ed. *Cambridge University Press*, Cambridge.

Stearn W. T., 1986 – *Nothoscordum gracile*, the correct name of *N. fragrans* and *N. inodorum* of authors (Alliaceae). *Taxon*, Utrecht, 35 (2): 335-338.

Steudel E. G., 1856 – Einige Beiträge zu der Chilesischen und Peruanischen Flora, haupisächlich nach den Sammlnngen von Bertero und Lechler. *Flora oder allg. bot. Zeit*., Regensburg, 39 (26): 401-444.

Sun K., Chen X., Ma R., Li C., Wang Q. & Ge S., 2002 – Molecular phylogenetics of *Hippophae* L. (Elaeagnaceae) based on the internal transcribed spacer (ITS) sequences of nrDNA. *Pl. Syst. Evol.*, Wien, 235 (1-4): 121-134.

Talavera S. & Salgueiro F. S., 1989 – Sobre el tratamento de la tribu Cytiseae Bercht. and J. Presl (Papilionoideae, Leguminosae) en "Flora Iberica". *Anales Jard. Bot. Madrid*, Madrid, 57 (1): 200-218.

Tutin T. G. & Akeroyd J. R., 1993 – 19. Ranunculus L. In: Flora Europaea. Tutin T. G., Burges N. A., Chater A. O., Edmondson J. R., Heywood V. H., Moore D. M., Valentine D. H., Walters S. M. & Webb D. A. (eds.). *Cambridge University Press*, Cambridge, 2 ed., 1 (Psilotaceae-Platanaceae): 269-286.

Tzvelev N. N., 2002 – (On the genera *Elaeagnus* and *Hippophae* (Elaeagnaceae) in Russia and adjacent states.). *Бот. Журн.* (Bot. Zhurn.), Leningrad, 87 (11): 74-86.

Valdés B., 1996 – 7. Notas sobre Lavatera (Malvaceae) de Marruecos. In: Floristic biodiversity of N Morocco. Taxonomic, Corologic and Nomenclatural notes. AaVv. (eds.). *Lagascalia*, Sevilla, 18 (2): 237-240.

Valiejo-Roman C. M., Terentieva E. I., Samigullin T. H., Pimenov M. G., Ghahremani-Nejad F. & Mozaffarian V., 2006 – Molecular data (nrITS-sequencing) reveal relationships among Iranian endemic taxa of the Umbelliferae. *Feddes Repert.*, Berlin, 117 (5-6): 367-388.

Walters S. M., 1993 – 1. Portulaca L. In: Flora Europaea. Tutin T. G., Burges N. A., Chater A. O., Edmondson J. R., Heywood V. H., Moore D. M., Valentine D. H., Walters S. M. & Webb D. A. (eds.). *Cambridge University Press*, Cambridge, 2 ed., 1 (Psilotaceae-Platanaceae): 137-138.

Webb P. B. & Berthelot S., 1836 – Histoire naturelle des Îles Canaries. *Béthune*, Paris, 3 (2, 1, fasc. 11): 25-40.

Webb P. B. & Berthelot S., 1848 – Histoire naturelle des Îles Canaries. *Béthune*, Paris, 3 (2, 3, fasc. 95): 337-360.

Veldkamp J. F., 2009 – *Aegilotriticum* x *requienii*, the correct name for *Aegilops* x *triticoides* (Gramineae). *Webbia*, Firenze, 64 (1): 13-15.

Wilhalm T., Zemmer F., Beck R., Stockner W. & Tratter W., 2005 – Für die Flora Südtirols neue Gefäßpflanzen (3): Ergebuisse der floristichen Kartierung, vornehmlich aus den Jahren 2002-2004. *Gredleriana*, Bolzano, 4 (2004): 381-412.

Yamane K. & Kawahara T., 2005 – Intra- and interspecific phylogenetic relationships among diploid *Triticum-Aegilops* species (Poaceae) based on base-pair substitutions, indels, and microsatellites in chloroplast noncoding sequences. *Amer. Journ. Botany*, Ithaca, 92 (11): 1887-1898.

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