Catalogue of the family *Brassicaceae* (*Cruciferae*) in the flora of Bulgaria

Minčo Ančev

Institute of Botany, Bulgarian Academy of Sciences, Acad. Georgi Bonchev St., bl. 23, 1113 Sofia, Bulgaria, e-mail: botmanch@bio.bas.bg

Received: November 09, 2006 ▷ Accepted: March 14, 2007

Abstract. The Catalogue features the taxonomic composition of family *Brassicaceae* in the Bulgarian flora. It presents all relevant species and subspecies with their basionyms and synonyms used in the national Floras and Keys. The taxa are accompanied by complete reference data. Given is the distribution of species by floristic regions in the country, as well as their general distribution. The Catalogue also gives the chromosome number (2*n*) of the species and subspecies; counts based on Bulgarian material are asterisked. All Bulgarian endemic species and subspecies are duly noted down. The synantropic species in the family account for 33.30 % and the neophytes (2.73%) are marked with a symbol. The conservationally significant taxa have been categorised and rated according to the IUCN criteria. Attached is also a list of species that were cited for Bulgaria in the different Floras, but were not confirmed in its territory. Species reported in earlier reference sources that are not encountered in Bulgaria are listed too.

Key words: *Brassicaceae*, distribution, Bulgaria, Bulgarian endemics, chromosome numbers, neophytes, taxonomic structure, threatened taxa

Introduction

After the publication of family *Brassicaceae* in the *Flora of the PR Bulgaria* (Jordanov 1970), in the subsequent years its component genera that were studied out have formed the taxonomic basis for floristic and biosystematic investigations of the family in Bulgaria. The results of these investigations, closely related to the taxonomic studies in Europe and the Mediterranean, were used for revision of the larger genera and groups of species and for a critical inventory of the family in the Bulgarian flora featured in this synonymic Catalogue.

Structure and content of the Catalogue

The Catalogue of family *Brassicaceae* in the flora of Bulgaria represents a synonymic list of the taxa: genera, species and subspecies arranged in alphabetical order. It reflects the taxonomic structure of the family which, more or less, rests on the species concept of *Flora Europaea* (Tutin & al. 1993), the taxonomic solutions applied in the *Med-Checklist* (Greuter & al. 1986) and *Atlas Florae Europaeae* (Jalas & Suominen 1994; Jalas & al. 1996), and on the contemporary concepts about the taxonomy of such genera as *Arabidopsis*, *Arabis* and *Lepidium*, based on phylogenetic studies (O'Kane & Al-Shehbaz 1997; Al-Shehbaz & O'Kane 2002; Al-Shehbaz & al. 2002). As genus *Thlaspi* with five perennial and three annual species is in the process of biosystematic research in the flora of Bulgaria, we have refrained from dividing it into smaller genera in the Catalogue, although in recent years there has been a string of investigations outlining the need of such a division (cf. Meyer 2006, and the References thereof).

The Catalogue shows up the taxonomic changes and distribution data on the studied representatives of the family in the Bulgarian flora in recent years (Stanev 1970, 1975, 1981, 1984; Vassilev 1975; Delipavlov 1980; Delipavlov & Cheshmedzhiev 1983; Delipavlov & al. 1984; Ančev 1991, 1995, 1997, 2001, 2006; Cheshmedzhiev & Stoychev 1994; Dimitrov 1994, 1997, 2001, 2002a, b; 2006; Pashaliev & Dimitrov 1995; Marhold & al. 1996; Ančev & Polatschek 1998, 2003, 2006; Dimitrov & Nikolov 1998; Gussev & al. 1998; Petrova & al. 1998; Ančev & Tomšović 1999; Marhold & Ančev 1999; Niketić 2000; Zhelev & Gogushev 2000; Kostadinova & Dimitrov 2002; Dimitrov & Sidjimova 2003; Petrova 2004).

The accepted genera, species, subspecies and varieties are given in **Bold**; the synonyms are given in *Italic,* as the basionyms and replaced names are marked with "triple equal" **(≡)**, the heterotypic synonyms are marked with **(=)**; misinterpreted names appear at the end of synonymy and are marked with a dash.

A species group is used in the Catalogue to show a very close morphology and probable phylogenetic bonds between the species within the group. The group (aggregate) species is the earliest described (segregate) species included in the group (Greuter & al. 1986).

In taxonomic combinations, basionyms are cited in the synonymy in alphabetical order. In the process of selection of cited synonyms, besides the basionyms, there have been also cited the taxa used in the Bulgarian Floras and Keys (Stojanov & Stefanov 1924, 1933, 1948; Stojanov & al. 1966; Jordanov 1970; Kozhuharov 1992; Delipavlov & Cheshmedzhiev 2003), the *Conspectus of the Higher Plants in Bulgaria* (Kozhuharov & al. 1980), *Conspectus of the Bulgarian Vascular flora. Distribution maps and floristic elements* (Dimitrov 2002; Assyov & Petrova 2006), and occasionally the synonymous taxa used in other critical and monographic taxonomic publications. In order to acquire a more comprehensive idea of the intraspecies variability, the not nominal varieties known in the Bulgarian flora are given too. The Catalogue does not include forms, a taxonomic category that reflects the modificational variability in the populations and is of limited application.

The names of authors of the various taxa are given according to the adopted standard of Brummitt & Powell (1992). Distribution of the species and subspecies in Bulgaria is presented in square brackets [ ] by floristic regions (Kuzmanov & Kozhuharov 1968; Jordanov 1970), immediately after the synonymic block. The general distribution of species and subspecies follows their distribution within the country, and the general distribution of the nominal subspecies that do not occur in Bulgaria is added. The hybrid species of genus *Rorippa*, distributed in Bulgaria is given with its hybrid formula. The chromosome number(s) (2*n*) are included immediately after the general distribution of the species or subspecies. Counts based on Bulgarian material are asterisked followed by the reference data. Dubious counts are preceded by a question mark.

Bulgarian endemics, species and subspecies, are indicated in the margin with **End**, the Balkan endemics – with ▲. Single-time reported species and subspecies that are documented by herbarium material, but later have not been confirmed in the Bulgarian flora are designated with **(?)**. Reported species and subspecies that have not been documented, nor were subsequently confirmed are marked with **(??)**, thus indicating the probability that they may be rediscovered in the country.

In family *Brassicaceae,* the synantropic species (Stefanov & Kitanov 1962; Kuzmanov & Kožuharov 1971), weeds and ruderal species in the Bulgarian flora account for 33.30% of the total number of species in the family. The archeosynantropic species in this group (archeophytes or synantropic plants that participate in the buildup of the autochtonous flora) account for 56 species (30.60%). They are not designated specially in the Catalogue. The neosynantropic species (neophytes) are marked with **Neo** in the margin (2.73%). To them belong accidentally spread, or cultivated and then run wild plants in the Bulgarian flora, probably not earlier than the 15th century (Kuzmanov & Kožuharov 1971; Greuter & al. 1986). The Catalogue includes some conspicuously cultivated outdoors Cruciferous plants. They are designated with **Cult** in the margin .

The taxonomic and nomenclature revisions of family *Brassicaceae* and the results of the studied distribution and ecology of its representatives in the country have called for revision of the list of species and subspecies with an ecologically protected status, included in the *Red Data Book of the PR of Bulgaria* (Velchev 1984). Following the IUCN criteria (2001), they are referred to four categories in the catalogue: **RE** (Regionally Extinct) – plants found once usually in a single locality and after that have not been confirmed; **CR** (Critically Endangered) – species and subspecies facing an extremely high risk of extinction in the wild in the immediate future; **En** (Endangered) – taxa fac-

ing a very high risk of extinction in the wild; and **Vu** (Vulnerable) – species and subspecies facing a high risk of extinction in the wild.

Finally, the Catalogue lists (Appendix 1) the species incorrectly reported for the Bulgarian flora for one or another reason.

Floristic regions of Bulgaria:

01 Black Sea Coast:
01a – *Northern*;
01b – *Southern*

02 Northeast Bulgaria

03 Danubian Plain

04 Forebalkan

05 Stara Planina Mts:
05a – *Western*;
05b – *Central*;
05c – *Eastern*

06 Sofia Region

07 Znepole Region

08 Vitosha Region
(includes Vitosha and Plana Mts)

09 West Frontier Mts

10 Valley of Strouma River:
10a – *Northern*;
10b – *Southern*

11 Mt Belasitsa

12 Mt Slavyanka

13 Valley of Mesta River

14 Pirin Mts:
14a – *Northern*;
14b – *Southern*

15 Rila Mts

16 Mt Sredna Gora:
16a – *Western*;
16b – *Eastern*

17 Rhodopi Mts (the Rhodopes):
17a – *Western*;
17b – *Central*;
17c – *Eastern*

18 Thracian Lowland

19 Toundzha Hilly Country

20 Mt Strandzha

[0] Distributed all over the country

Abbreviations and symbols used:

Af	Africa
Al	Albania
Am	America
As	Asia
AsM	Asia Minor
Aus	Australia
Balk	Balkan Peninsula
BH	Bosnia-Herzegovina
Bu	Bulgaria
C	Central
Cauc	Caucasus
Cosm	cosmopolitan
CR	Critically Endangered
Cr	Crete
Cult	cultivated
E	East, eastern
En	Endangered
End	Bulgarian endemic
Eu	Europe
Gr	Greece
Hrv	Croatia
InH	Indo-Himalayan
Yu	Former Yugoslavia
Kry	Crimea
Ma	R Macedonia
Med	Mediterranean
N	North, Northern
Neo	neophyte
RE	Regionally Extinct
Rm	Romania
S	South, Southern
Sib	Siberia
Sle	Slovenia
Tu	European Turkey
Vu	Vulnerable
W	West, Western
▲	Balkan endemic
(?)	species and subspecies reported and documented by herbarium material, but not confirmed later.
(??)	species and subspecies reported, but not documented by herbarium material, and not confirmed later.

Brassicaceae Burnett (*Cruciferae* Juss.)

Aethionema W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 80.

CR ***Aethionema arabicum*** (L.) Andrz. ex DC., Syst. Nat. 2 (1821) 560.
= *A. buxbaumii* Fisch. ex Hornem., Suppl. Hort. Hafn. (1819) 71
≡ *Iberis arabica* L., Cent. Pl. 1 (1755) 17.
[05c]. [Balk: Bu, Tu; SW As, Cauc]. 2*n* = 22.

Aethionema saxatile (L.) R. Br. in Aiton, Hort. Kew. ed. 2, 4 (1812) 80.
≡ *Thlaspi saxatile* L., Sp. Pl. ed. 1 (1753) 646.
[?04, 05, 07, 09, 10a, 10b, 11, 12, 14, 15, 17b, 17c, 18]. [S & SC Eu, Med, NW Af].

▲ **subsp. *graecum*** (Boiss. & Spruner) Hayek, Prodr. Fl. Penins. Balcan. 1 (1925) 472.
≡ *A. graecum* Boiss. & Spruner in Boiss., Diagn. Pl. Or. Nov. ser. 1, 1(6) (1846) 16.
= *A. gracile* var. *athoum* Griseb., Spicil. Fl. Rumel. 1 (1843) 281.
= *A. saxatile* subsp. *oreophilum* I.A. Anderson, Carlström, Franzén, Karlén & H. Nybom, Willdenowia 13 (1983) 14.
[?04, 05a, 07, 09, 10, 11, 12, 14, 15, 17b, 17c, 18]. [Balk: Al, Bu, Gr, ?Ma]. 2*n* = 24, 24* (Ančev 1976, as *A. saxatile*), c. 36, 48.
subsp. *saxatile*
[07, ?15, ?18]. [S Eu, W Med]. 2*n* = 24, 48.

Alliaria Scop., Fl. Carn. ed. 1 (1760) 515.

Alliaria petiolata (M. Bieb.) Cavara & Grande, Bull. Orto Bot. Regia Univ. Napoli 3 (1913) 418.
≡ *Arabis petiolata* M. Bieb., Fl. Taur.-Caucas. 2 (1808) 126.
– *Alliaria officinalis* Andrz. ex M. Bieb., Fl. Taur.-Caucas. 3 (1810), nom. illeg.
[0]. [Eu, Med, C & SW As, Cauc, N Af]. 2*n* = 36, 42, 42* (Ančev 2001).

Alyssoides Mill., Gard. Dict. Abr. ed. 4 (1754).

Alyssoides utriculata (L.) Medik., Philos. Bot. 1 (1789) 189.
≡ *Alyssum utriculatum* L., Mant. Pl. (1767) 92.
= *Vesicaria utriculata* (L.) DC. in Lam. & DC., Fl. Fr. ed. 3, 4 (1805) 696.
[04, 05b, 05c, 07, 10, 11, 12, 14, 15, 17b, 20]. [S & SE Eu, Med, SW As, Cauc].

▲, En **subsp. *bulgarica*** (Sagorski) Hartvig in Strid, Mount. Fl. Gr. 1 (1986) 277.
= *Alyssoides bulgarica* (Sagorski) Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 486.
≡ *Vesicaria utriculata* subsp. *bulgarica* Sagorski, Österr. Bot. Z. 48 (1898) 20.
[05b, 10, 12, 17b, c, 20]. [Balk: Bu, Gr]. 2*n* = 16* (Ančev 1974, as *A. bulgarica*).
subsp. *utriculata*
= *A. graeca* (Boiss.) Jáv., Bot. Közlem. 2 (1924) 73.
≡ *Vesicaria graeca* Boiss., Fl. Or. 1 (1867) 262.
– *A. utriculata* subsp. *graeca* (Boiss.) Zangh., Fl. Ital. 1 (1976) 209, comb. inval.
[04, 05b, 05c, 07, 11, 14, 15, 17b, 20]. [S & SE Eu, Med, SW As, Cauc]. 2*n* = 16, 16* (Cheshmedzhiev 1976; Ančev 1981, as *A. graeca*).

Alyssum L., Sp. Pl. ed. 1 (1753) 650.

Alyssum alyssoides (L.) L., Syst. Nat. ed. 10, 2 (1759) 1130.
= *A. calycinum* L., Sp. Pl. ed. 1 (1763) 908.
≡ *Clypeola alyssoides* L., Sp. Pl. ed. 1 (1753) 652.
[0]. [Eu, N Af, W & SW As]. 2*n* = 32, 32* (Ančev 1983).

Alyssum bertolonii Desv., J. Bot. Agric. 3 (1814) 172.
[10b, 12, 14b]. [S & SE Eu].
subsp. *bertolonii*
[S Eu: It]. 2*n* = 16.

▲ **subsp. *scutarinum*** Nyár., Bul. Grăd. Bot. Univ. Cluj 7 (1927) 87.
[10b, 12, 14b]. [Balk]. 2*n* = 16* (Ančev & Dudley 1981).

Alyssum borzaeanum Nyár., Bul. Grăd. Bot. Univ. Cluj 6 (1926) 90.
= *A. tortuosum* subsp. *borzaeanum* (Nyár.) Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 511.

[01, 18, 19]. [SE Eu, SW As]. $2n = 16, 32, 32^*$ (Ančev 1991).

Alyssum caliacrae Nyár., Bul. Grăd. Bot. Univ. Cluj 6 (1926) 92.
= *A. tortuosum* subsp. *caliacrae* (Nyár.) Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 508.
var. *prodanii* (Nyár.) Ančev, stat. nov.
≡ *A. caliacrae* subsp. *prodanii* Nyár., Bul. Grăd. Bot. Univ. Cluj. 4 (1926) 172.
= *A. alpestre* subsp. *caliacrae* var. *prodanii* (Nyár.) Stoj. & Stef., Fl. Bulg. ed. 3 (1948) 531.
= *A. tortuosum* subsp. *caliacrae* var. *prodanii* (Nyár.) Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 511.
[01, 02, 04, 17b]. [SE Eu]. $2n = 32 + 2B^*$(Ančev 1991).

Alyssum corymbosoides Form., Verh. Naturf. Vereins Brünn. 34 (1895) 329.
= *A. rhodopense* Form., Deutsche Bot. Monatsschr. 16 (1898) 20.
= *A. tortuosum* subsp. *rhodopense* (Form.) Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 511.
[04, 07,10, 14, 17b, 17c, 18]. [SE Eu]. $2n = 32^*$ (Ančev & Dudley 1981).

Alyssum hirsutum M. Bieb., Fl. Taur.-Caucas. 2 (1808) 106.
= *A. minus* subsp. *hirsutum* (M. Bieb.) Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 503.
[01, 02, 03, 04, 05, 06, 07, 10, 18, 19]. [E & SE Eu, E Med].
subsp. *caespitosum* (T.R. Dudley) Ančev in Kožuharov & Kuzmanov, Evol. Cvetn. Rast. Florogenesis 2 (1991) 108.
≡ *A. hirsutum* var. *caespitosum* T.R. Dudley, Österr. Bot. Z. 112 (5) (1965) 754.
[01b]. [E Med]. $2n = 46^*$ (Ančev & Dudley 1981).
subsp. *hirsutum*
[01, 02, 03, 04, 05, 06, 07, 10, 18, 19]. [E & SE Eu, E Med]. $2n = 48, 48^*$ (Ančev 2001).

Alyssum minus (L.) Rothm., Repert. Spec. Nov. Regni Veg. 50 (1941) 77.
≡ *Clypeola minor* L., Fl. Monsp. (Nathorst, Dissert. no. 70, 1756) 21, non Amoen. Acad. (1759) 4.
= *A. simplex* Rudolphi, J. Bot. (Schrad.) 1799 (2): 290.
– *A. campestre* auct. Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 526, non (L.) L., Syst. Nat. ed. 10 (1759) 1130.
[0]. [S & SE Eu, N Af, W & SW As]. $2n = 16, 16^*$ (Ančev 1975).

Alyssum minutum Schltdl. ex DC., Syst. Nat. 2 (1821) 316.
= *A. ponticum* Velen., Sitzungsber. Konigl. Böhm. Ges. Wiss., Math.-Naturwiss. Cl. 37 (1893) 10.
[0]. [S & SE Eu, N Af, SW As, Cauc]. $2n = 16, 16^*$ (Ančev 1975).

Alyssum montanum L., Sp. Pl. ed. 1 (1753) 650.
[02, 03, 04, 05, 07, 08, 09, 10, 12, 14, 15, 17]. [W, C, SE & E Eu, C As].
End **subsp. *alibotushiense*** (Degen & Dren.) Stoj. & Stef., Fl. Bulg. ed. 3 (1948) 528 "*A. alibotushicum*".
≡ *A. montanum* var. *graecum* f. *alibotushiense* Degen & Dren. in Dren., Suppl. Fl. Alibotusch. 2 (1933) 3.
= *A. montanum* var. *regis-borisii* Degen & Dren., l. c.
[12, 14b]. [Bu] $2n = 32^*$ (Ančev 1991).
subsp. *gmelinii* (Jord.) Em. Schmid in Hegi, Ill. Fl. Mitteleur. 4 (10) (1919) 451.
≡ *A. gmelinii* Jord., Brev. Pl. Nov. 2 (1866) 8.
var. *ramosissimum* Baumg., Eualyss. 1 (1907) 12.
[02, ?03, 04, 05, 07, 08, 09, 14, 17]. [W, C, SE & E Eu, C As]. $2n = 32, 32^*$ (Ančev & Dudley 1981), 48.
subsp. *montanum*
– *A. montanum* subsp. *scardicum* auct. Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 494, non (Wettst.) Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 434.
[05, 07, 08, 09, 14, 15, 17a, 17b]. [C & S Eu]. $2n = 16, 32, 32^*$ (Ančev 1991).

Alyssum murale Waldst. & Kit., Descr. Icon. Pl. Hung. 1 (1799) 5.

– *A. argenteum* auct. Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 527, non All., Auct. Syn. Stirp. Taurin (1773) 20.

[0]. [SE Eu, E Med].

subsp. *murale*

[0]. [SE Eu, E Med] $2n = 16$, 16* (Ančev & Dudley 1981), 32.

subsp. *pichleri* (Velen.) Stoj. & Stef., Fl. Bulg. ed. 2 (1933) 481.

≡ *A. pichleri* Velen., Fl. Bulg. (1891) 38.

[11, 15, 17, 18] [SE Eu: Balk, S Rm].

?? **subsp. *stojanoffii*** (Nyár.) T.R. Dudley, J. Arnold Arbor. 45 (1964) 87.

= *A. pichleri* subsp. *stojanoffii* Nyár., Syn. Gen. Alyss. (1955) 106.

[11]. [Bu].

Alyssum obtusifolium Steven ex DC., Reg. Veg. Syst. Nat. 2 (1821) 305.

= *A. alpestre* subsp. *obtusifolium* (Steven ex DC.) Stoj. & Stef., Fl. Bulg. ed. 2 (1933) 482.

= *A. tortuosum* subsp. *obtusifolium* (Steven ex DC.) Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 508.

var. *cordatocarpum* (Nyár.) Ančev, stat. nov.

≡ *A. obtusifoliun* subsp. *cordatocarpum* Nyár., Bul. Grad. Bot. Univ. Cluj. 4 (1926) 172.

[01, 04 05b, 05c, 07, 08, 10, 17c, 18, 19]. [SE Eu, Cauc]. $2n = 32$* (Ančev & Dudley 1981).

End CR ***Alyssum orbelicum*** Ančev & Uzunov, Phytol. Balcan. 8(1) (2002) 26.

[14a]. [Bu]. $2n = 64$* (Ančev & Uzunov 2002).

End, En ***Alyssum pirinicum*** (Stoj. & Acht.) Ančev, Willdenowia 36(1) (2006) 195.

≡ *A. cuneifolium* Ten. subsp. *pirinicum* Stoj. & Acht., Izv. Tsarsk. Prir. Inst. Sofiya 12 (1939) 184.

[14a]. [Bu]. $2n = 16$* (Ančev 1991, 2001).

Alyssum pulvinare Velen., Sitzungsber. Königl. Böhm. Ges. Wiss., Math.-Naturwis. Cl. 2 1889 (1890) 30.

= *A. thracicum* Velen., Fl. Bulg. (1891) 40.

= *A. mildeanum* Podp., Verh. Zool.-Bot. Ges. Wien 52 (1902) 630.

[02, 07, 17b]. [SE Eu]. $2n = 32$* (Ančev & Dudley 1981).

End ***Alyssum reiserii*** Velen., Sitzungsber. Königl. Böhm. Ges. Wiss., Math.- Naturwis. Cl. 37 (1893) 9.

= *A. montanum* subsp. *reiserii* (Velen.) Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 433; Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 494.

[04, 05b, 05c, 07, 09, 10, 17b, 17c]. [Bu]. $2n = 16$* (Ančev 1991).

Alyssum rostratum Steven, Mem. Acad. Sci. Petersb. (Sci. Phys. Mat.) 3 (1909-1910) 295.

= *A. montanum* subsp. *rostratum* (Steven) Stoj. & Stef., Fl. Bulg. ed.1, 1 (1924) 526.

[01a, 02, 04, 05c]. [SE Eu, Cauc]. $2n = 16$.

Vu ***Alyssum stribrnyi*** Velen., Fl. Bulg. (1891) 640.

[10, 12, 14b, 17b, 18]. [SE Eu, SW As]. 2n = 32* (Ančev 1991).

Alyssum strigosum Banks & Sol. in A. Russell, Nat. Hist. Aleppo ed. 2, 2 (1794) 257.

= *A. minus* subsp. *strigosum* (Banks & Sol.) Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 503.

[0]. [E & SE Eu, N Af, E Med, SW As]. $2n = 16$* (Ančev & Dudley 1981; Ančev 1991).

Alyssum tortuosum Waldst. & Kit. in Willd., Sp. Pl. ed. 3, 1 (1800) 466.

= *A. alpestre* var. *tortuosum* (Waldst. & Kit.) Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 528.

– *A. alpestre* auct. Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 528, non L., Mantissa (1767) 92.

[01a, 02, 05c, 07, 13]. [E & SE Eu, E Med, W & SW As, Cauc] $2n = 16$, 32, 32* (Ančev 1976).

Alyssum trichostachyum Rupr., Fl. Cauc. (1869) 101.

= *A. repens* subsp. *trichostachyum* (Rupr.) Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 436; Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 495.

[05a, 09, 12, 14, 15, 17a, 17b]. [C & SE Eu, SW As, Cauc]. $2n = 16$, 32, 48* (Ančev 1978, 1991).

Alyssum turkestanicum Regel & Schmalh. in Regel, Izv. Imp. Obshch. Lyubit. Estestv. Moskovsk. Univ. 32(2) (1882) 6.
= *A. desertorum* Stapf, Denkschr. Akad. Wiss. Wien Math.-Naturwiss. Kl. 51 (1886) 302.
– *A. minutum* auct. bulg. p. p. min. non Schltdl. ex DC.
[0]. [C, E & SE Eu, E Med, W & SW As]. $2n = 32$, 32* (Ančev 1975, as *A. desertorum*).

Alyssum umbellatum Desv., J. Bot. Agric. 3 (1815) 184.
[01b, 17c, 20]. [SE Eu, E Med, SW As]. $2n = 14$, 14*, 16, 16* (Ančev 1978, 1984).

Alyssum wierzbickii Heuff., Flora (Regensburg) 18 (1835) 242.
= *A. repens* subsp. *wierzbickii* (Heuff.) Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 436; Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 496.
[02, 03, 04, 05b]. [SE Eu].

Andrzeiowskia Rchb., Iconogr. Bot. Pl. Crit. 1 (1823) 15.

Andrzeiowskia cardamine Rchb., Iconogr. Bot. Pl. Crit. 1 (1823) 15.
[01b]. [SE Eu, E Med]. $2n = 16$* (Delipavlov & Cheshmedzhiev 1983).

Arabidopsis Heynh. in Holl & Heynh., Fl. Sachs. 1(2) (1842) 538, nom. cons.
= *Cardaminopsis* (C.A. Mey.) Hayek, Fl. Steiermark 1 (1908) 477.
≡ *Sisymbrium* sect. *Arabidopsis* DC., Mem. Mus. Paris 7 (1821) 238.

Arabidopsis arenosa (L.) Lawalrée, Bull. Soc. Roy. Bot. Belgique 92 (1960) 242.
=*Arabis arenosa* (L.) Scop., Fl. Carniol. ed. 2, 2 (1772) 32.
= *Cardaminopsis arenosa* (L.) Hayek, Fl. Steiermark 1 (1908) 478.
≡ *Sisymbrium arenosum* L., Sp. Pl. ed. 1 (1753) 658.
[04, 05a, 06, 07, 08, 09, 16a, 18]. [Eu]. $2n = 16$, 16* (Ančev & Goranova 1997b, as *C. arenosa*).

Arabidopsis thaliana (L.) Heynh. in Holl & Heynh., Fl. Sachs. 1 (1842) 538.
≡ *Arabis thaliana* L., Sp. Pl. ed. 1 (1753).
= *Sisymbrium thalianum* (L.) J. Gay, Ann. Sci. Nat. (Paris) ser. 1, 7 (1826) 399.
= *Stenophragma thaliana* (L.) Čelak., Arch. Naturwiss. Landesdurchf. Böhmen 3 (1875) 445.
[0]. [Eu, Med, SW As, N Af]. $2n = 10$, 10* (Ančev & Goranova 1997b).

Arabis L., Sp. Pl. ed. 1 (1753) 664.

Arabis alpina L., Sp. Pl. ed. 1 (1753) 664.
[04, 05b, 07, 09, 12, 14, 15, 17a, 17b]. [Eu, C As, Sib., C & E Af, N Am].
subsp. *alpina*
[Eu, SW As, N Af]. $2n = 16$.
subsp. *flavescens* (Griseb.) Hayek, Repert. Spec. Nov. Regni Veg. Beih. 30(1) (1925) 404.
≡ *A. alpina* var. *flavescens* Griseb., Spicil. Fl. Rumel. 1 (1843) 247.
[04, 05b, 07, 09, 12, 14, 15, 17a, 17b]. [Balk, Cauc]. $2n = 16$, 16* (Peev 1975, as *A. alpina*).

Arabis auriculata Lam., Encycl. 1 (1783) 219.
= *A. recta* Vill., Hist. Pl. Dauph. 3 (1788) 319; Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 465.
– *A. saxatilis* auct. bulg. p.p., non All., Fl. Pedem. 1 (1785) 268, nom. illeg.
[0]. [C, S & E Eu, Med, C & SW As, Cauc, Indo-Him]. $2n = 16$, 16* (Ančev 2001).

Arabis ciliata Clairv., Man. Herb. Suisse (1811) 222.
– *A. jacquinii* auct. bulg. p. p. min., non G. Beck.
[12]. [C, S & SE Eu]. $2n = 16$, 16* (Ančev 2001).

En ***Arabis collina*** Ten., Prodr. Fl. Nap. 39 (1811-15).
= *A. mrkvickiana* Velen., Reliquiae Mrkvičkanae (1922) 4.
= *A. muralis* Bertol., Rar. Lig. Pl. 2 (1806) 37, non Salisb., Prodr. (1796) 272; Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 461.
= *A. muralis* var. *macedonica* Degen & Urum., Magyar Bot. Lapok 10 (1911) 111.
[12, 14]. [S Eu]. $2n = 16$, 32, 32* (Ančev 2001).

End, En ***Arabis ferdinandi-coburgii*** Kellerer & Sünd. in Sünd., Allgem. Bot. Z. 1903 (1904) 62.
[14a]. [Bu]. $2n = 18^*$ (Ančev 1981).

***Arabis hirsuta* group** [*A. hirsuta, A. hornungiana, A. sagittata, A. sudetica*]

Arabis hirsuta (L.) Scop., Fl. Carn. ed. 2, 2 (1772) 30.
≡ *Turritis hirsuta* L., Sp. Pl. ed. 1 (1753) 666.
[08, 14a, 17a]. [Eu, Med, SW As, Cauc, Sib, N Af, N Am]. $2n = 16$, 16^* (van Loon & van Setten 1982), 32.

Arabis hornungiana Schur, Enum. Pl. Transs. (1866) 43.
= *A. sagittata* subsp. *hornungiana* (Schur) Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 458.
[5b, 14]. [SE Eu]. $2n = 24$, 32, 32^* (Burdet 1967).

Arabis sagittata (Bertol.) DC. in Lam. & DC., Fl. Fr. ed. 3, 5 (1815) 592.
≡ *Turritis sagittata* Bertol., Pl. Genuen. (1804) 89.
var. *etrusca* (Tuzson) Markgr. in Hegi, Ill. fl. Miteleur. 4, 1 (1958) 252.
≡ *A. hirsuta* f. *etrusca* Tuzson, Math. Term. Ertes. 34 (1916) 429.
var. *glastifolia* Rchb. in Sturm, Deutschl. Fl. 1, 12 (1827) 31.
[0]. [C, S & E Eu, Med, SW As, N Af]. $2n = 16$, 16^* (Ančev 1981).

Vu ***Arabis sudetica*** Tausch, Flora (Regensburg) 19 (1836) 407.
= *A. balcana* Davidov, in schedae.
= *A. constricta* Griseb., Spic. Pl. Fl. Rumel. 1 (1863) 249.
– *A. allionii* auct. Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 458, non DC. in Lam. & DC., Fl. Fr. ed. 3, 4 (1805) 676.
[14, 15, 17a]. [EC & SE Eu]. $2n = 16{,}16^*$ (Andreev 1982 as *A. allionii*).

Vu ***Arabis nova*** Vill., Prosp. Pl. Dauph. (1779) 39.
= *A. saxatilis* All., Fl. Pedem. 1 (1785) 268, nom. illeg.
– *A. auriculata* auct. non Lam., Encycl. 1 (1783) 219.
[05b, 07, 08, 15, 16, 17, 18, 20]. [S Eu]. $2n = 16$, 16^* (Ančev 2001).

Arabis procurrens Waldst. & Kit., Pl. Rar. Hung. 2 (1803) 154.
[04, 05, 07, 08, 09, 11, 14, 15]. [C & SE Eu]. $2n = 16$, 16^* (Ančev 2001), 32^* (Burdet 1967).

Arabis turrita L., Sp. Pl. ed. 1 (1753) 665.
[0]. [C & S Eu, Med, N Af, SW As, Cauc]. $2n = 16$, 16^* (Ančev 1982).

Armoracia P. Gaertn., B. Mey & Schreb., Oekon. Fl. Wetterau 2 (May-Jul 1800) 426, nom. cons.

En ***Armoracia macrocarpa*** (Waldst. & Kit. ex Willd.) Kit. ex Baumg., Enum. Stirp. Transs. 2 (1816) 240.
≡ *Cochlearia macrocarpa* Waldst. & Kit. ex Willd., Sp. Pl. ed. 4(1) (1800) 451.
[02]. [C & SE Eu]. $2n = 32$.

Cult ***Armoracia rusticana*** (Lam.) P. Gaertn., B. Mey. & Schreb., Oekon. Fl. Wetterau 2 (1800) 425.
≡ *Cochlearia rusticana* Lam., Fl. Fr. ed. 1, 2 (1778) 47.
[01, 02, 03, 06 10, 18]. [Eu, C & SW As]. $2n = 32$.

Aubrieta Adans., Fam. Plant. 2 (1763) 420.

Aubrieta columnae Guss., Pl. Rar. (1826) 266.
[10a, 12, 14]. [It; Balk: Al, Bu, Hrv, Rm].
subsp. *columnae*
[S It].
End, En **subsp. *bulgarica*** Ančev, subsp. nov.
– *A. intermedia* auct. Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 474, non Heldr. & Orph. ex Boiss., Diagn. Pl. Or. Nov. ser. 2, 3(1) (1854) 36, p.p.

Holotype: Bulgaria, the Valley of Strouma River: In fisuris rupium calcarearum ad pagum Belovo (Zemen), distr. Kiustendil. 15.IV.1907, leg. Iv. Urumov sub *Aubrieta intermedia* Heldr. & Orph. (SOM 32751).

Folia utrinque dentibus 1 (2) praedita, petala 18-25 mm longa, siliqua (12) 14-25 mm longa *Aubrieta columnae* subsp. *columnae* et subsp. *pirinica* diversam.

Differs from *Aubrieta columnae* subsp. *columnae* and subsp. *pirinica* by the leaves with 1(2) pairs of short

wide teeth (in subsp. *columnae* usually entire, in subsp. *pirinica* with 1-3 pairs of teeth); petals 18-25 mm long (in subsp. *columnae* 11-17 mm long, in subsp. *pirinica* 14-20 mm); siliqua (12)14-25 mm long (in subsp. *columnae* 5-12 mm long, in subsp. *pirinica* 5-14 mm).

[10a]. [Bu]. $2n = 16^*$ (Ančev 1978, as *A. intermedia*).

End, En **subsp. *pirinica*** Assenov in Jordanov, Fl. PR Bulg. 4 (1970) 707.

– *A. intermedia* var. *macedonica* auct. bulg. non Adam., Denkschr. Acad. Wiss. Wien Math.-Naturwiss. Kl. 74 (1904) 125.

[12, 14]. [Bu]. $2n = 16^*$ (Ančev & Hardalova 1989).

Cult ***Aubrieta deltoidea*** (L.) DC., Syst. Nat. 2 (1821) 294.

≡ *Alyssum deltoideum* L., Sp. Pl. ed. 2 (1763) 908.

[E Med].

Aubrieta gracilis Spruner ex Boiss., Diagn. Pl. Or. Nov. ser. 1, 1(1) (1843) 74.

[14, 15]. [Balk: Al, Bu, Gr].

subsp. *gracilis*

[Gr]. $2n = 16$.

▲, Vu **subsp. *scardica*** (Wettst.) Phitos, Candollea 25 (1970) 84.

≡ *A. croatica* var. *scardica* Wettst., Bibliotheca Bot. 26 (1892) 21.

= *A. intermedia* var. *pirinica* Stoj., Izv. Bulg. Bot. Druzh. 1 (1926) 72, nom. nud.

[14a, 15]. [Balk: Al, Bu, Gr]. $2n = 16^*$ (Ančev 1978, as *A. gracilis*), 32.

Aurinia Desv., J. Bot. Agric. 3 (1815) 162.

Aurinia saxatilis (L.) Desv., J. Bot. Agric. 3 (1815) 162.

≡ *Alyssum saxatile* L., Sp. Pl. ed. 1 (1753) 650.

[0]. [C & SE Eu, E Med, Cauc].

subsp. *orientalis* (Ard.) T.R. Dudley, J. Arnold Arb. 45 (1964) 394.

≡ *Alyssum orientale* Ard., Animad. Bot. Spec. Alt. 2 (1764) 32.

= *A. saxatile* subsp. *orientale* (Ard.) Rchb. f., Ann. Naturhist. Mus. Wien 43 (1929) 200; Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 512.

[0]. [SE Eu, E Med]. $2n = 16,16^*$ (Ančev 1978, as *A. saxatile* subsp. *orientale*).

subsp. *saxatilis*

= *Alyssum saxatile* L. subsp. *saxatile*, Stoj. in Jordanov, Fl. RP Bulg. 4 (1970) 512.

[01b, 10b, 17b]. [C & SE Eu, Cauc]. $2n = 16,16^*$ (van Loon & van Setten 1982 as *Alyssum saxatile*).

En ***Aurinia uechtritziana*** (Bornm.) Cullen & T.R. Dudley, J. Arnold Arb. 45 (1964) 398.

= *Lepidotrichum uechtritzianum* (Bornm.) Velen., Österr. Bot. Z. 39 (1889) 324; Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 516.

≡ *Ptilotrichum uechtritzianum* Bornm., Österr. Bot. Z. 38 (1888) 10.

[01a, 01b]. [Balk: Bu, Tu; E Med]. $2n = 16^*$ (Kožuharov & Kuzmanov 1965, as *L. uechtritzianum*).

Barbarea W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 109, nom. cons.

▲ ***Barbarea balcana*** Pančić., Srpska Kralj. Bot. Bašta Beograd (1888) 6.

– *Barbarea rivularis* Pančić, Elem. Fl. Bulg. (1883) 14, nom. illeg. non Loret, Bull. Soc. Bot. France 6 (1859) 90.

[05a, 05b, 14, 15, 17a, 17b]. [Balk: Al, Bu, Gr, Yu, Ma]. $2n = 16,16^*$ (Ančev 2001), 32.

Barbarea bracteosa Guss., Fl. Sicul. Prodr. 2 (1828) 257.

[9, 11, 12, 14, 15]. [S Eu]. $2n = 16,16^*$ (Ančev 1981).

▲ ***Barbarea longirostris*** Velen., Sitzungsber. Königl. Böhm. Ges. Wiss. Prag, Math.-Naturwiss. Cl. 29 (1898) 1.

[11, 17a, 17b, 18]. [Balk: Al, Bu, Gr, ?Yu, Ma].

Barbarea stricta Andrz. in Besser, Enum. Pl. (1822) 72.

[01a, 02, 03, 04, 20]. [C, N & E Eu, C As, E Sib, Cauc]. $2n = 16$.

Barbarea vulgaris W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 109.

= *B. rivularis* Loret, Bul. Soc. Bot. France 6 (1859) 90.

var. *arcuata* (Opiz) Fries., Nov. Fl. Suec. ed. 2 (1828) 205.

≡ *Erysimum arcuatum* Opiz in J. & C. Presl, Fl. Čech. (1819) 138.
[0]. [Eu, As, N Af]. 2*n* = 16,16* (Ančev 1981), 18.

Berteroa DC., Mém. Mus. Hist. Nat. 7 (1821) 232.

Berteroa incana (L.) DC., Syst. Nat. 2 (1821) 291.
≡ *Alyssum incanum* L., Sp. Pl. ed. 1 (1753) 650.
= *Berteroa incana* var. *bulgarica* Degen & Urum., Magyar Bot. Lapok 10 (1911) 111.
= *Farsetia incana* (L.) W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 97.
var. *stricta* (Boiss. & Heldr.) Turrill, Kew Bull. (1920) 181.
≡ *B. stricta* Boiss. & Heldr. in Boiss., Diagn. Pl. Or. Nov. ser. 2, 3(1) (1854) 35.
[0]. [C & E Eu, C As, Sib]. 2*n* = 16, 16* (Ančev 1981).

Berteroa mutabilis (Vent.) DC., Syst. Nat. 2 (1821) 292.
≡ *Alyssum mutabile* Vent., Descr. Pl.: tab. 85 (1802).
[05c, 11, 15, 17b, 20]. [SE Eu, Cauc]. 2*n* = 16* (Ančev 1981).

Berteroa obliqua (Sm.) DC., Syst. Nat. 2 (1821) 292.
≡ *Alyssum obliquum* Sm. in Sibth. & Sm., Fl. Graec. Prodr. 2 (1813) 12.
= *Berteroa moesiaca* Velen., Fl. Bulg. Suppl. 1 (1898) 23.
[01, 02, 04, 06, 08, 10b, 13, 17a, 18, 19]. [SE Eu]. 2*n* = 16.

Brassica L., Sp. Pl. ed. 1 (1753) 666.

Brassica elongata Ehrh., Beitr. Naturk. 7 (1792) 159.
= *Erucastrum elongatum* (Ehrh.) Rchb., Fl. Germ. (1832) 694.
[01, 02, 03, 04, 06, 18]. [C & SE Eu, C As, W Sib, Cauc]. 2*n* = 22, 22* (Ančev 2001).

End, Vu ***Brassica jordanoffii*** O.E. Schulz, Notizbl. Bot. Gart. Berlin-Dahlem 10 (1927) 111.
= *B. nivalis* subsp. *jordanoffii* (O.E. Schulz), Akeroyd & Leadlay, Bot. J. Linn. Soc. 106 (1991) 102.
[14a]. 2*n* = 22* (Krusheva 1975; Ančev 2001).

Brassica juncea (L.) Czern., Konsp. Rast. Harkova (1859) 8.
≡ *Sinapis juncea* L., Sp. Pl. ed. 1 (1753) 668.
[01, 03, 06, 19, 20]. [SE Eu, S & E As]. 2*n* = 36.

Neo ***Brassica napus*** L., Sp. Pl. ed. 1 (1753) 666.
[02, 04, 05b, 10, 18]. [Eu, As]. 2*n* = 16.

Brassica nigra (L.) Koch in Röhling, Deutschl. Fl. ed. 3, 4 (1833) 713.
≡ *Sinapis nigra* L., Sp. Pl. ed. 1 (1753) 668.
[0]. [S & W Eu]. 2*n* = 16,16* (Ančev 1982).

Cult ***Brassica oleracea*** L., Sp. Pl. ed. 1 (1753) 667.
[W Eu, Med]. 2*n* = 18.

Brassica rapa L., Sp. Pl. ed. 1 (1753) 666.
= *B. campestris* L., Sp. Pl. ed. 1 (1753) 666.
[0]. [Eu, Med].
Cult **subsp. *oleifera*** DC., Prodr. 1 (1824) 214. 2*n* = 20.
Cult **subsp. *rapa***
2*n* = 20.
subsp. *sylvestris* (L.) Janch. in Janch. & Wendelb., Kleine Fl. Wien (1953) 55.
≡ *B. oleracea* var. *sylvestris* L., Sp. Pl. ed. 1 (1753) 667.
[0]. [Eu, Med]. 2*n* = 20, 20* (Ančev 1978).

Bunias L., Sp. Pl. ed. 1 (1753) 669.

Bunias erucago L., Sp. Pl. ed. 1 (1753) 670.
[06, 10, 18]. [S Eu, Med, SW As, N Af]. 2*n* = 14, 14*(Ančev & Goranova 1997b).

Bunias orientalis L., Sp. Pl. ed. 1 (1753) 670.
[01, 02]. [E & SE Eu, SW As, Cauc, Sib]. 2*n* = 14.

Cakile Mill., Gard. Dict. Abr. ed. 4 (1754).

Cakile maritima Scop., Fl. Carniol. ed. 2 (1772) 35.
[01a, 01b]. [Eu, Med, N Af].
subsp. *euxina* (Pobed.) Nyár. in Săvul., Fl. RP Romanicae 3 (1955) 480.
≡ *C. euxina* Pobed., Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk. SSSR 15 (1953) 71.
[01]. [SE Eu]. 2*n* = 18, 18* (Ančev 2001).
subsp. *maritima*
[W & NW Eu]. 2*n* = 18.

Calepina Adans., Fam. Pl. 2 (1763) 423.

Calepina irregularis (Asso) Thell. in Schinz & R. Keller, Fl. Schweiz. ed. 2, 1 (1905) 218.
= *C. corvinii* (All.) Desv., J. Bot. Agric. 3 (1815) 158.
≡ *Myagrum irregulare* Asso, Syn. Stirp. Aragon (1779) 82.
[0]. [W, C & S Eu, Med, SW As, Cauc]. 2*n* = 14, 28, 28* (Ančev 1981).

Camelina Crantz, Stirp. Austr. Fasc. 1 (1762) 17.

Camelina alyssum (Mill.) Thell., Verz. Sämaereien Frühste Bot. Gart. Univ. Zürich (1906) 10.
= *C. linicola* Schimp. & Spenn., Fl. Frieburg 3 (1829) 958.
= *C. sativa* subsp. *alyssum* (Mill.) Hegi & Em. Schmid in Hegi, Ill. Fl. Mitteleur. 4 (1919) 371.
≡ *Myagrum alyssum* Mill., Gard. Dict. ed. 8, 2 (1768).
var. *integrifolia* Wahlenb., Sched. Crit. (1822) 318.
[06, 08, 15, 17a]. [Eu, SW As, Cauc, N Af]. 2*n* = 40.

Camelina microcarpa Andrz. ex DC., Syst. Nat. 2 (1821) 517.
= *C. sativa* subsp. *microcarpa* (Andrz. ex DC.) Hegi & Em. Schmid in Hegi, Ill. Fl. Mitteleur. 4, 1 (1919) 370.
[01, 03, 04, 05a, 05b, 06, 17, 18]. [Eu]. 2*n* = 16, 18, 20, 24*, 26* (Ančev 2001).

Camelina rumelica Velen., Sitzungsber. Königl. Böhm. Ges. Wiss., Math.-Naturwiss. Cl. 1887 (1888) 448.
= *C. sativa* subsp. *rumelica* (Velen.) Stoj., Stef. & Kitan., Fl. Bulg. ed. 4, 1 (1966) 473, comb. inval.
[01, 02, 03, 04, 05b, 05c, 06, 07, 08, 10, 17a, 17b, 18, 19]. [SE Eu, C & SW As, Cauc]. 2*n* = 12, 26, 26* (Ančev 2001).

Camelina sativa (L.) Crantz, Stirp. Austr. Fasc. 1 (1762) 17.
≡ *Myagrum sativum* L., Sp. Pl. ed. 1 (1753) 641.
[02, 03, 04, 10a]. [C & S Eu, E Med, C & SW As, Cauc]. 2*n* = 26*, 36* (Ančev 1981, 2001), 40.

Capsella Medik., Pfl.-Gatt. (22 Apr.1792) 85, 99, nom. cons.

Capsella bursa-pastoris (L.) Medik., Pfl.-Gatt. (1792) 85.
≡ *Thlaspi bursa-pastoris* L., Sp. Pl. ed. 1 (1753) 647.
[0]. [Cosm].
subsp. *bursa-pastoris*
[0]. [Cosm]. 2*n* = 16, 32, 32* (Ančev 2001).
End, En **subsp. *thracica*** (Velen.) Stoj. & Stef., Fl. Bulg. ed. 3 (1948) 51.
≡ *Capsella thracica* Velen., Sitzungsber. Königl. Böhm. Ges. Wiss. , Math.-Naturwiss. Cl. 37 (1893) 11.
[01a, 17a, 18]. [Bu].

Capsella rubella Reut., Compt.-Rend. Trav. Soc. Hallér (1854) 18.
[01b, 05c, 17, 18, 20]. [SW & S Eu]. 2*n* = 16, 16* (Ančev 2001).

Cardamine L., Sp. Pl. ed. 1 (1753) 654.

Cardamine acris Griseb., Spicil. Fl. Rumel. 1 (1843) 253.
subsp. *acris*
= *C. raphanifolia* subsp. *acris* (Griseb.) O.E. Schulz, Bot. Jahrb. Syst. 32 (1903) 512; Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 431.
[05a, 05b, 07, 09, 11, 14, 15, 16a, 17a, 17b]. [S Eu, Balk, SW As]. 2*n* = 16, 16* (Ančev & al. 1997).

Cardamine amara L., Sp. Pl. ed. 1 (1753) 656.
[05b, 08, 11, 14, 15, 17a, 17b]. [Eu, N Sib].
subsp. *amara*
[05b]. [Eu, W Sib]. 2*n* = 16, 16* (Marhold & al. 1996).
▲ **subsp. *balcanica*** Marhold, Ančev & Kit Tan, Ann. Bot. Fenn. 33 (1996) 201.
– *C. barbareoides* auct. Stoj. & Stef., Fl. Bulg. ed.1, 1 (1924) 507, non Halácsy.
[08, 09, 11, 14, 15, 17a, 17b]. [Bu, Gr]. 2*n* = 16* (Marhold & al. 1996; Ančev & al. 1997b).

Cardamine bulbifera (L.) Crantz, Cl. Crucif. Emend. (1769) 127.
≡ *Dentaria bulbifera* L., Sp. Pl. ed. 1 (1753) 653.

[0]. [Eu, Med, SW As, Cauc]. 2*n* = 48, 96, 96* (Ančev 1982).

Cardamine flexuosa With., Bot. Arr. Brit. Pl. ed. 3, 3 (1796) 578.
[05a, 05b, 09, 15, 16a, 17b]. [Eu]. 2*n* = 32, 32* (Ančev 2001).

Cardamine glauca Spreng. ex DC., Syst. Nat. 2 (1821) 266.
[05b, 09, 11, 14, 15]. [S Eu]. 2*n* = 16, 16* (Ančev 2001).
var. *melanocarpa* Stoj. & Acht., Izv. Tsarsk. Prir. Inst. Sofiya, 12 (1939) 184.

Cardamine graeca L., Sp. Pl. ed. 1 (1753) 655.
[01, 02, 03, 04, 05c, 10, 11, 12, 14, 17, 18, 20]. [S Eu, E Med]. 2*n* = 16, 18, 18*(Ančev 2001).

Cardamine hirsuta L., Sp. Pl. ed. 1 (1753) 655.
[0]. [Eu, As]. 2*n* = 16, 16* (Ančev 1981, 1983), 32.

Cardamine impatiens L., Sp. Pl. ed. 1 (1753) 665.
[04, 05, 06, 07, 08, 09, 11, 14, 15, 17a, 17b]. [Eu, SW & C As, Sib]. 2*n* = 16, 16* (Ančev 2001).

? ***Cardamine parviflora*** L., Syst. Nat. ed. 10, 2 (1759) 1131.
[18]. [Eu, As, N Af, N Am]. 2*n* = 16.

Cardamine pectinata Pall. ex DC., Syst. Nat. 2 (1821) 264.
= *C. impatiens* subsp. *pectinata* (Pall. ex DC.) Stoj. & Stef., Fl. Bulg. ed. 3 (1948) 509.
[05b, ?11, 14, 15, 17a, 17b]. [Balk: Bu, Gr; SW As, Cauc]. 2*n* = 16, 16* (Ančev 2001).

***Cardamine pratensis* group** [*C. matthioli, C. penzesii, C. rivularis*]

Cardamine matthioli Moretti, Giorn. Impl. Reale Ist. Lombardo Sci. 8: 623 & Giorn. Impl. Reale Ist. Lombardo Sci. & Bibliot. Ital. 16 (18 Aug. 184) 359.
= *C. hayneana* (Rchb.) Schur, Verh. Naturf. Vereins. Brünn. 1512 (1876) 80.
= *C. pratensis* var. *hayneana* Rchb., Fl. Germ. Excurs. (1832) 676.
– *C. palustris* auct. Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 434, non (Wimmer & Grab.) Peterm., Bot. Centralbl. Deautschl. 1 (11 Feb. 1846) 47, 48.
= *C. skorpilii* Velen., Sitzungsber. Königl. Böhm. Ges. Wiss., Math.-Naturwis. Cl. 51 1889 (1890) 29.
[05b, 05c, 06, 07, 08, 9, 14, 15, 17a, 17b, ?18]. [C & S Eu, Tu]. 2*n* = 16, 16* (Ančev & al. 1997).

Cardamine penzesii Ančev & Marhold in Marhold & Ančev, Ann. Bot. Fenn. 36 (1999) 172.
≡ *C. tuberosa* Pénzes & Vida in Pénzes, Ann. Hist.-Nat. Mus. Natl. Hung. 57 (1965) 174, non DC., Syst. Nat. 2 (1821) 254, nom. illeg.
– *C. pratensis* var. *dentata* auct. Stoj. & Stef. Fl. Bulg. ed. 1, 1 (1924) 508, non (Schult.) Wimm. & Grab.
[01a, 01b]. [Balk: Bu, Tu; NW AsM]. 2*n* = 16* (Marhold & Ančev 1999).

Cardamine rivularis Schur, Verh. Mitth. Siebenbürg. Vereins Naturwiss. Hermannstadt 4 (1853) 61.
= *C. pratensis* subsp. *rivularis* (Schur) Nyman, Consp. (1878) 36.
= *C. amethystea* Pančić, Nova Graca Fl. Bulg. (1886) 15.
[05b, 08, 11, 14, 15, 17a, 17b]. [SE Eu: Bu, Rm]. 2*n* = 16, 16* (Kuzmanov & Kožuharov 1969; Ančev & al. 1997).

Cardamine quinquefolia (M. Bieb.) Schmmalh., Fl. Srednei & Yuzhnoi Rossii 1 (1895) 51.
≡ *Dentaria quinquefolia* M. Bieb., Fl. Taur.-Caucas. 2 (1808) 109.
[01b, 02, 04, 05c]. [E Eu, SW As, Cauc].

Cardamine resedifolia L., Sp. Pl. ed. 1 (1753) 656.
[05, 08, 09, 11, 12, 14, 15, 17a, 17b]. [C & S Eu]. 2*n* = 16

Chorispora R. Br. ex DC., Mém. Mus. Hist. Nat. 7 (20 Apr 1821) 237.

Chorispora tenella (Pall.) DC., Syst. Nat. 2 (1821) 435.
≡ *Raphanus tenellus* Pall., Reise Russ. Reich. 3 (1776) 741, t. 50 f.
[02, 03]. [SE Eu, Sib, W, C & SW As, InH]. 2*n* = 14.

Clypeola **L., Sp. Pl. ed. 1 (1753) 652.**

Clypeola jonthlaspi L., Sp. Pl. ed. 1 (1753) 653.
subsp. *jonthlaspi*
[05c, 07, 09, 10a, 10b, 12, 13, 14, 17, 18, 19, 20]. [S Eu, Med, SW As]. $2n = 16, 32, 32^*$ (Ančev & Goranova 1997b).
subsp. *microcarpa* (Moris) Arcang., Comp. Fl. Ital. (1882) 63.
≡ *C. microcarpa* Moris, Atti Riunione Sci. Ital. 3 (1841) 539.
var. *glabriuscula* Gruner, Bull. Soc. Nat. Mosc. 40 (1867) 396.
var. *petraea* (Jord. & Fourr.) Deb, Rev. Bot. 13 (1895) 53.
≡ *C. petraea* Jordan & Fourr., Brev. Pl. Nov. 2 (1868) 14.
[09, 14]. [C & S Eu, Med, SW As] $2n = 16^*$ (Ančev & Goranova 1997b), 32

Conringia **Heist. ex Fabr., Enum. (1759) 160.**

Conringia austriaca (Jacq.) Sweet, Hort. Brit. (1826) 25.
≡ *Brassica austriaca* Jacq., Fl. Austr. 3 (1775) 45.
[01, 02, 03, ?06, 07, ?08, 10, ?14, 17c, 18, 19]. [EC & SE Eu, SW As, Cauc]. $2n = 28$.

Conringia orientalis (L.) Andrz. ex DC., Syst. Nat. 2 (1821) 508.
≡ *Brassica orientalis* L., Sp. Pl. ed. 1 (1753) 666.
[01, 02, 03, 06, 07, ?08, 10, ?14, 17c, 18, 19]. [C & E Eu, C & SW As, Med, Cauc, N Af]. $2n = 14, 28$.

Vu ***Conringia planisiliqua*** Fisch. & C.A. Mey., Index Seminum Hort. Petrop. 3 (1837) 32.
[10a]. [Balk: Bu, N Gr; SW As, Cauc]. $2n = 14^*$ (Ančev & Goranova 1997a), ?18.

Crambe **L., Sp. Pl. ed. 1 (1753) 671.**

Crambe maritima L., Sp. Pl. ed. 1 (1753) 671.
var. *pontica* (Steven ex Rupr.) O.E. Schulz, Pflanzenr. 4, 105 (1919) 229.
≡ *C. pontica* Steven ex Rupr., Fl. Cauc. (1869) 293, nom. nud.
[01a, 02]. [W & E Eu]. $2n = 30, 30^*$ (Kožuharov & Petrova 1976), 60.

En ***Crambe tataria*** Sebeók, Tataria Hung. (1779) 7.
= *C. pinnatifida* W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 72.
[01a, 02]. [C, CS & E Eu, Cauc, Sib]. $2n = 30$.

Descurainia **Webb & Berthel., Hist. Nat. Iles Canaries 3(2, 1) (1836) 72, nom. cons.**

Descurainia sophia (L.) Webb ex Prantl in Engl. & Prantl, Natürl. Pflanzenfam. 3(2) (1891) 192.
≡ *Sisymbrium sophia* L., Sp. Pl. ed. 1 (1753) 659.
[0]. [Eu, As, Med, N Af]. $2n = 14, 28, 28^*$ (Ančev 1981)

Diplotaxis **DC., Mém. Mus. Hist. Nat. 7 (20 April1821) 243.**

Diplotaxis muralis (L.) DC., Syst. Nat. 2 (1821) 634.
≡ *Sisymbrium murale* L., Sp. Pl. ed. 1 (1753) 658.
[01, 02, 03, 04, 06, 07, 08, 09, 10, 12, 18]. [WC & S Eu, Med, N Af]. $2n = 42, 42^*$ (Ančev 1981).

Diplotaxis tenuifolia (L.) DC., Syst. Nat. 2 (1821) 632.
≡ *Sisymbrium tenuifolium* L., Amoen. Acad. 4 (1759) 259.
[01, 02, 03, 06, 07, 10, 18]. [W, C & S Eu, Med, SW As, Cauc]. $2n = 22, 42^*$ (Ančev 1981), 42.

Diplotaxis viminea (L.) DC., Syst. Nat. 2 (1821) 635.
≡ *Sisymbrium vimineum* L., Sp. Pl. ed. 1 (1753) 658.
[02, 03, 05b, 06, 08, 10, 19]. [S Eu, Med, SW As, N Af]. $2n = 20$.

Draba **L., Sp. Pl. ed. 1 (1753) 642.**

Draba compacta Schott in Schott, Nyman & Kotschy, Analecta Bot. (1854) 50.
= *D. lasiocarpa* var. *compacta* (Schott) Stoj. & Stef., Fl. Bulg. ed. 2 (1933) 470.
[14a, 14b]. [Balk: Bu, Ma, ?Hrv; Rm]. $2n = 16$.

▲, En ***Draba korabensis*** Kümmerle & Degen, Bot. Közlem. 19 (1921) 22.

– *D. tomentosa* auct. Vulev in Jordanov, Fl. RP Bulg. 4 (1970) 530, non Clairv., Man. Herbar. Suisse (1811) 217.

var. *pirinica* Stoj. & Acht., Izv. Tsarsk. Prir. Inst. Sofiya 12 (1939) 184.

= *D. tomentosa* var *pirinica* (Stoj. & Acht.) Vulev in Jordanov, Fl. RP Bulg. 4 (1970) 530.

[14a]. [Balk: Al, Bu, Ma]. $2n = 32$.

En ***Draba lasiocarpa*** Rochel, Sched. Pl. Hung. Exsicc. (1810).

= *D. athoa* (Griseb.) Boiss., Diagn. Pl. Ori. Nov. ser. 2, 3(1) (1854) 33; Vulev in Jordanov, Fl. RP Bulg. 4 (1970) 525.

= *D. lasiocarpa* var. *athoa* (Griseb.) Stoj., Stef. & Kitan., Fl. Bulg. ed. 4, 1 (1966) 475, comb. illeg.

= *D. scardica* (Griseb.) Degen & Dörfl., Denkschr. Kaiserl. Akad. Wiss. Wien Math.-Naturwiss. Kl. 64 (1897) 707.

– *D. affinis* auct. Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 514, non Host, Fl. Austriaca 2 (1831) 238.

– *D. aizoides* auct. balcan. non L., Mantissa (1767) 91; Vulev in Jordanov, Fl. RP Bulg. 4 (1970) 524.

[05, 07, 08, 12, 14, 15, 16a, 17a, 17b]. [C & SE Eu]. $2n = 16$, 16* (Popova 1968).

Draba muralis L., Sp. Pl. ed. 1 (1753) 642.

[0]. [Eu, Med, SW As, Cauc]. $2n = 32$, 32* (Ančev 2001).

En ***Draba siliquosa*** M. Bieb., Fl. Taur.-Cauc. 2 (1808) 94.

= *D. carinthiaca* Hoppe, Flora (Regensburg) 6 (1823) 437.

[14a, 15]. [C & S Eu, SW As, Cauc]. $2n = 16$.

Erophila DC., Mém. Mus. Hist. Nat. 7 (1821) 234, nom. cons.

Erophila verna (L.) Chevall., Fl. Gen. Env. Paris 2 (1827) 898.

≡ *Draba verna* L., Sp. Pl. ed. 1 (1753) 642.

[0]. [Eu, Med, C & SW As, N Af].

subsp. *praecox* (Steven) Walters, Feddes Rep. Spec. Nov. Regni Veg. 69 (1964) 57.

≡ *D. praecox* Steven, Mém. Soc. Imp. Naturalistes Moscou 3 (1812) 269.

= *Erophila praecox* (Steven) DC., Syst. Nat. 2 (1821) 357.

[02, 04, 05, 08, 10, 14, 16a]. [Eu, Med]. $2n = 34$, 36.

subsp. *spathulata* (Láng) Vollm., Fl. Bayern (1914) 315.

≡ *E. spathulata* Láng, Syll. Pl. Nov. 1 (1824) 180.

[0]. [Eu, SW As]. $2n = 24$, 32.

subsp. *verna*

[0]. [Eu, N Af, W & C As.]. $2n = 14$, 30, 32, 34, 36, 52* (Ančev & Goranova 1997b).

Eruca Mill., Gard. Dict. Abr. ed. 4 (1754).

Eruca vesicaria (L.) Cav., Descr. Pl. (1802) 426.

≡ *Brassica vesicaria* L., Sp. Pl ed. 1 (1753) 668.

[01a, 03, 06, 15, 18]. [C & S Eu, Med, SW As]. $2n = 22$.

subsp. *sativa* (Mill.) Thell. in Hegi, Ill. Fl. Mittel.-Eur. 4 (1918) 201.

≡ *Eruca sativa* Mill., Gard. Dict. ed. 8, no 1 (1768).

[01a, 03, 06, 15, 18]. [C & S Eu, SW As].

subsp. *vesicaria*

[SW Eu].

Erysimum L., Sp. Pl. ed. 1 (1753) 660.

Erysimum bulgaricum (Velen.) Ančev & Polatschek, Ann. Naturhist. Mus. Wien, B, 104 (2003) 692.

≡ *E. goniocaulon* var. *bulgaricum* Velen., Fl. Bulg. Suppl. 1 (1898) 20.

– *E. crepidifolium* auct. Stoj. & Stef., Fl. Bulg. ed.1, 1 (1924) 523; Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 384; Assenov, Fl. RP Bulg. 4 (1970) 358. non Rchb.

[01a, 01b, 02, 05c, 17b, 18, 19]. [Balk: Bu, Gr, Tu; SE Rm]. $2n = 14$* (Ančev & Polatschek 2003).

En ***Erysimum cheiranthoides*** L., Sp. Pl. ed. 1 (1753) 661.

[02, 04]. [Eu, Med, N Af, C As, Sib]. $2n = 16$.

Cult ***Erysimum cheiri*** (L.) Crantz, Class. Crucif. Emend. (1769) 116.

≡ *Cheiranthus cheiri* L., Sp. Pl. ed. 1 (1753) 661.

[0]. [C, W & S Eu]. 2*n* = 12.

Vu ***Erysimum comatum*** Pančić, Fl. Serb. (1874) 130.
= *E. helveticum* var. *comatum* (Pančić) Acht. in Stoj. & Stef., Fl. Bulg. ed. 3 (1948) 523.
[04, 05b, 07, 12]. [SE Eu]. 2*n* = 14, 14* (Ančev & al. 1987; Anchev 1995), ?28.

Erysimum cuspidatum (M. Bieb.) DC., Syst. Nat. 2 (1821) 493.
≡ *Cheiranthus cuspidatus* M. Bieb., Tabl. Prov. Mer. Casp. (1798) 116.
– *Erysimum baumgartenianum* auct. bulg., non Schur, Enum. Pl. Transs.(1866) 56.
– *E. witmannii* auct. bulg., non Zaw., Enum. Pl. Galic. Bukow. 81 (1835) 194.
[0]. [SE Eu, C & SW As, Cauc]. 2*n* = 16, 16* (Ančev 1978), 16+2B* (Ančev & Polatschek 2006).

***Erysimum diffusum* group** [*E. crassistylum, E. diffusum, E. welcevii*]

Erysimum crassistylum C. Presl, Fl. Sicula 1 (1826) 77.
= *E. moesiacum* Velen., Fl. Bulg. Suppl. 1 (1898) 21.
= *E. canescens* var. *moesiacum* (Velen.) Stoj. & Stef., Fl. Bulg. ed.1, 1 (1924) 523.
– *E. diffusum* var. *australe* auct. Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 380, non *E. australe* Gay, Erysim. Nov. (1842) 6, nom. illeg.
[02, 03, 04, 05, 07, 08, 09, 10, 17, 18]. [Balk: Bu, Ju, NW Gr, ?Rm] 2*n* = 14, 14* (Ančev 1978, as *E. moesiacum*; Ančev & Polatschek 2006)

Erysimum diffusum Ehrh., Beitr. Naturk. 7 (1792) 157.
= *E. canescens* Roth, Catal. Bot. 1 (1797) 76.
– *E. australe* auct. balcan., non Gay, Erysim. Nov. (1842) 6, nom. illeg.
[01b, 02, 03, 04, 05, 06, 07, 08, 09, 10, 12, 14, 15, 16, 17, 18]. [C, E & SE Eu, SW & ?C As]. 2*n* = 28, 28* (Ančev & al. 1987; Ančev & Polatschek 2006).

▲ ***Erysimum welcevii*** Urum., Spis. Bulg. Acad. Nauk. 17 (1919) 216.
= *E. canescens* var. *welcevii* (Urum.) Stoj. & Stef., Fl. Bulg. ed.1, 1 (1924) 523.
= *E. diffusum* var. *welcevii* (Urum.) Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 380; Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 358.
[01, 02, 04, 05, 07, 08, 12, 15, 17, 18]. [Balk: Bu, Ju, N Gr]. 2*n* = 42*, 56* (Ančev & al. 1987; Ančev 1995; Ančev & Polatschek 2006).

***Erysimum drenowskii* group** [*E. drenowskii, E. pseudoatticum, E. slavjankae*]

▲ ***Erysimum drenowskii*** Degen, Magyar Bot. Lapok 33 (1934) 73.
= *E. comatum* var. *drenowskii* (Degen) Stoj., Stef. & Kitan., Fl. Bulg. Ed. 4, 1 (1966) 481, comb. inval.
= *E. diffusum* var. *humile* Cheshm. & Stojcev, Naucni Trudove Selskost. Inst. "Vasil Kolarov" 39 (1994) 335.
= *E. helveticum* var. *drenowskii* (Degen) Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 354.
[05b, 12, 14, 17b]. [Balk: Bu, NE Gr]. 2*n* = 14, 14*, 14 + 2B*, 28* (Ančev 1995; Ančev & Polatschek 2006).

End ***Erysimum pseudoatticum*** Ančev & Polatschek, Ann. Naturhist. Mus. Wien, B, 100 (1998): 726.
– *E. boryanum* var. *atticum* auct. Velen., Fl. Bulg. Suppl. 1 (1898) 21, non Heldr. & Sart. ex Boiss., Fl. Or. 1 (1867) 205.
– *E. parnassi* var. *atticum* auct. Stoj. & Stef., Fl. Bulg. ed. 2 (1933) 476, non Heldr. & Sart. ex Boiss., l.c.
– *E. pusillum* subsp. *parnassi* var. *atticum* p.p., auct. Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 380, non Heldr. & Sart. ex Boiss., l.c.
– *E. pusillum* subsp. *parnassi* p.p., auct. Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 357, non (Boiss. & Heldr.) Hayek, l.c.
– *E. helveticum* p.p., auct bulg. non (Jacq.) DC. in Lam. & DC., Fl. Fr. 3, 4 (1805) 658.
[05a, b; 07, 15, 17b]. [Bu]. 2n = 42* (Ančev 1995; Ančev & Polatschek 2006).

End, En ***Erysimum slavjankae*** Ančev & Polatschek, Ann. Naturhist. Mus. Wien, B, 100 (1998): 729.

– *E. helveticum* p. p., auct. bulg., non (Jacq.) DC. in Lam. & DC., Fl. Fr. 3, 4 (1805) 658.

[12, 14a]. [Bu]. $2n = 84^*$, $84 + 2B^*$ (Ančev 1995; Ančev & Polatschek 2006).

Erysimum odoratum Ehrh., Beitr. Naturk. 7 (1792) 157.

= *E. hieracifolium* L., Cent. Pl. 1 (1755) 18, nom. ambig.

[02, 03, 04, 07, 18, 19]. [C & S Eu]. $2n = 32, 32^*$ (Ančev & Polatschek 2006).

End ***Erysimum pirinicum*** Ančev & Polatschek, Ann. Naturhist. Mus. Wien, B, 100 (1998) 773.

– *E. comatum* auct. p. p. min., non Pančic, l.c.

[14a]. [Balk: Bu, NE Gr]. $2n = 28^*$ (Ančev 1995; Ančev & Polatschek 2006).

En ***Erysimum quadrangulum*** (L'Her.) Desf., Tabl. Bot. (1804) 129.

≡ *Cheiranthus quadrangulus* L'Her., Strip. Nov. (1785) 91.

= *E. sessiliflorum* W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 116, nom. illeg.

– *Syrenia cana* auct. bulg. non (Piller & Mitterp.) Neilr., Aufz. Nachtr. (1870) 73.

– *S. sesiliflora* auct. Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 368, non Ledeb., Fl. Ross. 1 (1842) 193.

[01a]. [E Eu, Cauc., W Sib]. $2n = 28, 28^*$ (Ančev & Polatschek 2006; Ančev & Hardalova 1989, as *S. cana*).

Erysimum repandum L., Demonstr. Pl. (1753) 17.

[0]. [C, E & S Eu, Med, C & SW As, Cauc]. $2n = 14, 16, 16^*$ (Ančev 1978).

Euclidium W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 74.

Euclidium syriacum (L.) W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 74.

≡ *Anastatica syriaca* L., Sp. Pl. ed. 2 (1763) 895.

[01, 02, 03, 04, 05b, 05c]. [EC & E Eu, Sib, C & SW As, Cauc, InH]. $2n = 14$.

Fibigia Medik., Pflanzengatt. 1 (1792) 90.

= *Farsetia* Turra sect. *Fibigia* DC., Reg. Veg. Syst. Nat. 2 (1821) 288.

Vu ***Fibigia clypeata*** (L.) Medik., Pflanzengatt. 1 (1792) 90.

≡ *Alyssum clypeatum* L., Sp. Pl. ed. 1 (1753) 651.

= *Farsetia clypeata* (L.) R. Br. in W.T. Aiton., Hort. Kew. ed. 2, 4 (1812) 96; Velen., Fl. Bulg. (1891) 35.

[02, 05c, 07, ?18]. [C, S & E Eu, Med, SW As]. $2n = 16, 16^*$ (Ančev 1981).

Hesperis L., Sp. Pl. ed. 1 (1753) 663.

Hesperis laciniata All., Fl. Pedem. 1 (1785) 271.

= *H. glutinosa* Vis., Flora (Regensburg) 12, Ergänzungbl. 1 (1829) 16.

= *H. visianii* E. Fourn., Bul. Soc. Bot. France 13 (1866) 338.

[01, 07, 10, 12, 15, 16a, 17, 18]. [S Eu, Med].

subsp. *laciniata*

[10, 12, 15, 16a, 17a, 17b]. [S Eu, Med]. $2n = 12^*$ (Ančev & Peneva-Nikolova 1984; Ančev & Goranova 1997b), 14.

▲ **subsp. *secundiflora*** (Boiss. & Spruner) Breistr., Mém. Soc. Bot. France 33 (1952) 84.

= *H. glutinosa* subsp. *secundiflora* (Boiss. & Spruner) Stoj. & Stef., Fl. Bulg. Ed. 2 (1933) 487.

≡ *H. secundiflora* Boiss. & Spruner in Boiss., Diagn. Pl. Or. Nov. ser. 1, 1(1) (1843) 70.

[01, 07, 10a, 10b, 17a, 17b, 18]. [Balk: Bu, Gr, ?Ma].

***Hesperis matronalis* group** [*H. dinarica, H. matronalis, H. sylvestris, H. theophrasti*]

Vu ***Hesperis dinarica*** G. Beck, Jahreskat. Wiener Bot. Tauschvereins (1894) 6.

= *H. degeniana* Borbás, Magyar Bot. Lapok 2 (1903) 21.

= *H. matronalis* var. *thracica* Velen., Sitzungsber. Königl. Böhm. Ges. Wiss., Math.-Naturwiss. Cl. 27 (1902) 2.

– *H. matronalis* var. *nivea* auct. Stoj. & Stef., Fl. Bulg. ed.1, 1 (1924) 534, non Baumg.

[05b, 08, 15]. [E, C & SE Eu]. $2n = 24, 24^*$ (Ančev & Goranova 1997b).

Neo ***Hesperis matronalis*** L., Sp. Pl. ed. 1 (1753) 663.

[0]. [C & S Eu; As].

Vu ***Hesperis sylvestris*** Crantz, Stirp. Austr. Fasc. 1 (1762) 34.
var. *velenovskyi* Fritsch, Verh. Zool. Bot. Ges. Wien 45 (1899) 375.
[0]. [C & SE Eu]. $2n = 12, 12^*, 14, 14^*$ (Ančev & Goranova 1997b), 16, 28.

▲,Vu ***Hesperis theophrasti*** Borbás, Magyar Bot. Lapok 1 (1902) 267.
= *H. macedonica* Adamović, Denkschr. Kaiserl. Acad. Wiss., Wien Math.-Naturwiss. Kl. 74 (1903) 124.
[08, 15 18, 20]. [Balk: Al, Ma, Bu, Gr].

Hesperis tristis L., Sp. Pl. ed. 1 (1753) 663.
= *H. desertorum* Velen., Sitzungsber. Konigl. Böhm. Ges. Wiss., Math.-Naturwiss. Cl. 37 (1893) 7.
= *H. tristis* subsp. *desertorum* (Velen.) Velen., Fl. Bulg. Suppl. 1 (1898) 18.
[01, 02, 03, 04, 07, 18, 19]. [C & E Eu, Cauc]. $2n = 14^*$ (Ančev 1981; Ančev & Goranova 1997b).

Hornungia Rchb., Deutschl. Fl. 1 (1837) 33.

Hornungia petraea (L.) Rchb., Deutschl. Fl. 1 (1837) 33.
= *Hutschinsia petraea* (L.) W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 82.
≡ *Lepidium petraeum* L., Sp. Pl. ed. 1 (1753) 644.
[01a, 02, 07, 08, 10, 14b, 17b, 18, 20]. [S, W & C Eu, Med, SW As]. $2n = 12, 12^*$ (Ančev & Goranova 1997b).

Hymenolobus Nutt. in Torr. & A. Gray, Fl. N Amer. 1 (1838) 117.

CR ***Hymenolobus procumbens*** (L.) Nutt. in Torr. & A. Gray, Fl. N Amer. 1 (1838)117.
= *Hornungia procumbens* (L.) Hayek, Prodr. Fl. Penins. Balcan. 1 (1925) 480; Vulev in Jordanov, Fl. RP Bulg. 4 (1970) 546.
= *Hutchinsia procumbens* (L.) Desv., J. Bot. Agric. 3 (1815) 168.
≡ *Lepidium procumbens* L., Sp. Pl. ed. 1 (1753) 643.
[01b]. [S Eu, Med, SW As, Cauc, N Af]. $2n = 12, 24$.

Iberis L., Sp. Pl. ed. 1 (1753) 648.

Cult ***Iberis amara*** L., Sp. Pl. ed. 1 (1753) 649.
[01, 06, 07, 18]. [W & C Eu]. $2n = 14$.

Vu ***Iberis saxatilis*** L., Cent. Pl. 2 (1756) 23.
[05c, 12, 14a]. [S Eu, Med].

End **subsp. *longistyla*** Ančev, Phytol. Balcan. 12(3): 363.
[12, 14a]. [Bu]. $2n = 33^*$ (Ančev 2006; Ančev & Goranova 1997b, as *I. saxatilis* subsp. *saxatilis*).

subsp. *saxatilis*
[05c]. [S Eu]. $2n = 22, 22^*$ (Ančev 2001).

Iberis sempervirens L., Sp. Pl. ed. 1 (1753) 648.
[05a, 05b, 14, 15, 17a]. [S Eu, Med, SW As]. $2n = 22, 22^*$ (Ančev 1978), 66.

Cult ***Iberis umbellata*** L., Sp. Pl. ed. 1 (1753) 649.
[06, 07, 18]. [S Eu].

Isatis L., Sp. Pl. ed. 1 (1753) 670.

Isatis praecox Kit. ex Tratt., Arch. Gewächsk. 1 (1812) 40.
[01, 02, 03, 04, 05a, 07, 12, 18]. [C, E & SE Eu, SW As]. $2n = 14, 28^*$ (Ančev & Goranova 1997b).

Neo ***Isatis tinctoria*** L., Sp. Pl. ed. 1 (1753) 670.
= *Isatis canescens* DC. in Lam. & DC., Fl. Fr. ed. 3, 5 (1815) 598.
[02, 03, 10]. [C & S Eu, Med, SW As, Cauc]. $2n = 14, 28$.

Kernera Medik., Pfl.-Gatt. (22 Apr. 1792) 77, 95, nom. cons.

Vu ***Kernera saxatilis*** (L.) Rchb. in Mössler, Handb. Gewächsk. ed. 2, (1828) 1142.
≡ *Cochlearia saxatilis* L., Sp. Pl. ed. 1 (1753) 648.
[14a, 17b]. [C & S Eu]. $2n = 14, 16, 16^*$ (Andreev 1982), 32.

Lepidium L., Sp. Pl. ed. 1 (1753) 643; Al-Shehbaz, Mummenhoff & Appel, Novon 12(1) (2002) 7.

= *Cardaria* Desv., J. Bot. Agric. 3 (1815) 163.
= *Coronopus* Zinn, Cat. Pl. Hort. Gott. (1757) 325.

Lepidium campestre (L.) R. Br. in W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 88.
≡ *Thlaspi campestre* L., Sp. Pl. ed. 1 (1753) 646.
[0]. [Eu, Med, SW As, Cauc]. $2n = 16$, 16* (Ančev 1983).

Lepidium draba L., Sp. Pl. ed. 1 (1753) 645.
= *Cardaria draba* (L.) Desv., J. Bot. Agric. 3 (1815) 163.
[0]. [S & SE Eu, Med, SW As, Cauc]. $2n = 62$* (Ančev 1983, as *C. draba*), 64.

Lepidium graminifolium L., Syst. Nat. ed. 10 (1759) 1127.
[0]. [C & S Eu, Med, SW As]. $2n = 48$, 48* (Ančev 1983).

Lepidium latifolium L., Sp. Pl. ed. 1 (1753) 644.
[01, 02, 03, 17, 18, 19]. [Eu, Med, SW As, N Af]. $2n = 24$, 24* (Ančev 2001), 48.

Lepidium perfoliatum L., Sp. Pl. ed. 1 (1753) 643.
[0]. [C, E & SE Eu, Med, C & SW As, Cauc]. $2n = 16$, 16* (Ančev 2001).

Lepidium ruderale L., Sp. Pl. ed. 1 (1753) 645.
[0]. [Eu, C & SW As, Cauc]. $2n = 16$, 32, 32* (Ančev 1983).

Neo ***Lepidium sativum*** L., Sp. Pl. ed. 1 (1753) 644.
[17a]. [SW As, N Af]. $2n = 24$.

?? ***Lepidium spinosum*** Ard., Animadv. Bot. Spec. Alt. (1764) 34.
[01]. [E Med, SW As].

Lepidium squamatum Forssk., Fl. Aeg.-Arab. (1775) 117.
= *Coronopus squamatus* (Forssk.) Asch., Fl. Brandeb. 1 (1860) 62.
= *C. procumbens* Ces., Pass. & Gibelli, Comp. Fl. Ital. (1885) 824, nom. illeg., non Gilib., Fl. Lituanica 2 (1782) 52.
[0]. [Eu, Med, SW As, Cauc]. $2n = 32$.

Lunaria L., Sp. Pl. ed. 1 (1753) 653.

Lunaria annua L., Sp. Pl. ed. 1 (1753) 653.
[02, 04, 05a, 05b, 07, 08, 09, 10, 11, 15, 16, 17a, 17b, 17c, 18]. [SE Eu].
Cult **subsp. *annua***
[0]. [SE Eu]. $2n = 28$.

subsp. *pachyrhiza* (Borbás) Hayek, Prodr. Fl. Penins. Balc. 1 (1925) 424.
≡ *L. pachyrhiza* Borbás, Österr. Bot. Z. 41 (1891) 422.
[02, 04, 05a, 05b, 08, 09, 10, 15, 16, 17a, 17b, ?17c, 18]. [SE Eu]. $2n = 30$
var. *oppositifolia* Cheshm., Fitologiya 7 (1977) 79.

Lunaria rediviva L., Sp. Pl. ed. 1 (1753) 653.
var. *davidovi* Assenov in Jordanov, Fl. RP Bulg. 4 (1970) 707.
var. *macropoda* Borbás, Term. Füz. 18 (1895) 95.
[05a, 05b, 08, 09, 11, 14, 15, 16a, 17a, 17b]. [Eu]. $2n = 28$, 30, 30* (Ančev & Goranova 1997b).

Malcolmia W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 121.

Neo ***Malcolmia africana*** W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 121.
[01b]. [S Eu, N Af, SW As, InH].

Malcolmia orsiniana (Ten.) Ten., Fl. Nap. 5 (1835) 67.
≡ *Hesperis orsiniana* Ten., Succ. Rel. Viagg. Abruzzo (1830) 78.
[07, 12, 17b]. [Balk: Al, Bu, Gr, Ju, Ma; It].

▲, En **subsp. *angulifolia*** (Boiss. & Orph.) Stork, Svensk Bot. Tidskr. 66 (1972) 245.
≡ *M. angulifolia* Boiss. & Orph. in Boiss., Diagn. Pl. Or. Nov. ser. 2, 3(5) (1856) 19.
[12, 17b]. [Balk: Al, Bu, Gr]. $2n = 16$, 16* (Ančev 2001).
subsp. *orsiniana*
[S Eu: C Appennini].

▲ **subsp. *serbica*** (Pančić) Greuter & Burdet, Willdenowia 13 (1983) 94.
≡ *M. serbica* Pančić, Fl. Princ. Serb. (1874) 129.
[07]. [Balk: Bu, Yu, Ma]. $2n = 16$.

Maresia Pomel, Nouv. Mat. Fl. Atl. (1874) 228.

Vu ***Maresia nana*** (DC.) Batt. in Batt. & Trabut, Fl. Algérie 1 (1888) 68.
= *Malcolmia confusa* Boiss., Fl. Or. 1 (1867) 221.
= *M. nana* (DC.) Boiss., Fl. Or. 1 (1867) 222.

≡ *Sisymbrium nanum* DC., Syst. Nat. 2 (1821) 486.
[01b]. [Med]. 2*n* = 26, 28* (Ančev & Peneva-Nikolova 1984).

Matthiola W.T. Aiton, Hort. Kew. ed. 2, 4 (Dec. 1812) 119, nom. cons.

Matthiola fruticulosa (L.) Maire in Jahand. & Maire, Cat. Pl. Maroc. 2 (1932) 311.
≡ *Cheiranthus fruticulosus* L., Sp. Pl. ed. 1 (1753) 662.
= *Ch. tristis* L., Syst. Nat. ed. 10 (1759) 1134.
= *Matthiola tristis* (L.) W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 120.
[01, 02, 03, 12, 14b]. [S Eu].
subsp. *fruticulosa*
[S Eu]. 2*n* = 12, 16, 24.
subsp. *valesiaca* (Gay ex Gaudin) P.W. Ball, Feddes Repert. Spec. Nov. Regni Veg. 66 (1962) 157.
[01a, 02, 03, 12, 14b]. [SW, CS & SE Eu]. 2*n* = 12, 12* (Ančev & Hardalova 1989), 24.

Cult ***Matthiola incana*** (L.) W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 119.
[01, 06, 18]. [Med]. 2*n* = 14.

CR ***Matthiola odoratissima*** (M. Bieb.) W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 120.
≡ *Cheiranthus odoratissimus* Pall. ex M. Bieb., Tabl. Prov. Mer. Casp. (1798) 116.
[01a]. [SE Eu: Bu, Kry; SW As, Cauc] 2*n* = 12, 12* (Ančev & Hardalova 1989).

Myagrum L., Sp. Pl. ed. 1 (1753) 640.

Myagrum perfoliatum L., Sp. Pl. ed. 1 (1753) 640.
[0]. [S C & S Eu, Med, SW As, Cauc] 2*n* = 14, 14* (Ančev & Goranova 1997b).

Nasturtium W.T. Aiton, Hort. Kew., ed. 2, 4 (Dec. 1812) 109, nom. cons.

Nasturtium officinale W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 110.
= *Rorippa nasturtium-aquaticum* (L.) Hayek, Sched. Fl. Stir. no. 170 (1905), in sched.
≡ *Sisymbrium nasturtium-aquaticum* L., Sp. Pl. ed. 1 (1753) 657.
[0]. [Eu, As, Cauc]. 2*n* = 32, 32*(Ančev 1981).

Neslia Desv., J. Bot. Agric. 3 (1815) 162, nom. cons.

Neslia paniculata (L.) Desv., J. Bot. Appl. 3 (1814) 162.
≡ *Myagrum paniculatum* L., Sp. Pl. ed. 1 (1753) 894.
= *Vogelia paniculata* (L.) Hornem., Int. Hort. Bot. Hofniens. 2 (1819) 594.
[0]. [Eu, Med, SW As, N Af, Cauc].
subsp. *paniculata*
[0]. [Eu, Med, SW As, N Af, Cauc]. 2*n* = 14, 14* (Ančev 1983).
subsp. *thracica* (Velen.) Bornm., Österr. Bot. Z. 44 (1894) 125.
= *N. apiculata* Fisch., C.A. Mey. & Avé-Lall., Index Seminum Hort. Petrop. 8 (1842) 68.
= *N. paniculata* var. *apiculata* (Fisch., C.A. Mey. & Avé-Lall) Stoj., Stef. & Kitan., Fl. Bulg. ed. 4, 1 (1966) 473, comb. inval.
= *N. paniculata* var. *thracica* (Velen.) Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 512.
≡ *N. thracica* Velen., Fl. Bulg. (1891) 47.
[06, 10, 17c, 18]. [S Eu]. 2*n* = 42.

Pritzelago Kuntze, Revis. Gen. Pl. 1 (1891) 35.

Pritzelago alpina (L.) Kuntze, Revis. Gen. Pl. 1 (1891) 35.
= *Hutchinsia alpina* (L.) W. T. Aiton, Hort. Kew. ed. 2, 4 (1812) 82.
≡ *Lepidium alpinum* L., Cent. Pl. 2 (1756) 23.
[15]. [C & S Eu].
subsp. *alpina*
[C & CS Eu]. 2*n* = 12.
En **subsp. *brevicaulis*** (Spreng.) Greuter & Burdet, Willdenowia 15 (1985) 69.
≡ *Hutchinsia brevicaulis* Spreng., Syst. Veg. 2 (1825) 863.
[15]. [C Eu, Balk]. 2*n* = 12.

Raphanus L., Sp. Pl. ed. 1 (1753) 669.

Raphanus raphanistrum L., Sp. Pl. ed. 1 (1753) 669.
[0]. [Eu, Med, SW As, Sib, Cauc].
subsp. *landra* (Moretti ex DC.) Bonnier & Layens, Tabl. Syn. Pl. Vasc. (1894) 21.

≡ *Raphanus landra* Moretti ex DC., Syst. Nat. 2 (1821) 668.

[0]. [W. & S Eu]. 2*n* = 18.

subsp. *maritimus* (Sm.) Thell. in Hegi, Ill. Fl. Mitteleur. 4(1) (1918) 278.

≡ *Raphanus maritimus* Sm. in Sowerby, Engl. Bot. (1806) 1643.

[01]. [W & S Eu].

subsp. *raphanistrum*

[0]. [Eu, Med, SW As, Sib, Cauc]. 2*n* = 18, 18* (Kožuharov & Kuzmanov 1969).

Cult ***Raphanus sativus*** L., Sp. Pl. ed. 1 (1753) 669.

[0]. [C & SW As]. 2*n* = 18.

Rapistrum Crantz, Class. Crucif. Emend. (1769) 62, nom. cons.

Rapistrum perenne (L.) All., Fl. Pedem. 1 (1785) 258.

≡ *Myagrum perenne* L., Sp. Pl. ed. 1 (1753) 640.

[01a, 02, 03]. [C & E Eu]. 2*n* = 18.

Rapistrum rugosum (L.) All., Fl. Pedem. 1 (1785) 257, f. 778.

≡ *Myagrum rugosum* L., Sp. Pl. ed. 1 (1753) 640.

[01, 17c, 19]. [S Eu, Med, C & SW As, Cauc]. 2*n* = 16.

subsp. *orientale* (L.) Arcang., Comp. Fl. Ital. (1882) 49.

≡ *Myagrum orientale* L., Sp. Pl. ed. 1 (1753) 640.

[Med].

subsp. *rugosum*

[01, 17c, 19]. [S Eu].

Rorippa Scop., Fl. Carn. (1760) 520.

Rorippa amphibia (L.) Besser, Enum Pl. (1822) 27.

= *Nasturtium amphibium* (L.) R. Br. in W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 110; Velen., Fl. Bulg. (1891) 28.

≡ *Sisymbrium amphibium* L. var. *aquaticum* L., Sp. Pl. ed. 1 (1753) 657.

var. *auriculata* (DC.) Rchb., Icon. Fl. Germ. 2 (1837-1838) 15, t. 52.

≡ *Nasturtium amphibium* var. *auriculatum* DC., Prodr. 1 (1834) 139.

var. *indivisa* (DC.) Rchb., Icon. Fl. Germ. 2 (1837-1838) 15, t. 4364.

≡ *Nasturtium amphibium* var. *indivisum* DC., Prodr. 1 (1834) 139.

var. *variifolia* (DC.) Rchb., Icon. Fl. Germ. 2 (1837-1838) 15, t. 4364.

≡ *Nasturtium amphibium* var. *variifolium* DC., Prodr. 1 (1834) 139.

[0]. [Eu, Med, SW As, Cauc, Sib] 2*n* = 16, 16* (Ančev & Goranova 1997b), 32.

R.* x *armoracioides (Tausch) Fuss, Fl. Transsilv. Exsc. 47 (1866).

= *Rorippa austriaca* x *R. sylvestris.*

= *Nasturtium armoracioides* Tausch, Flora 23 (1840) 707.

– "*N. barbareoides* (Tausch) Čelak."

– *N. terrestre* auct. bulg., non Curtis in sched.

[02, 03, 04, 06, 18]. [C, E & N Eu]. 2*n* = 32.

Rorippa austriaca (Crantz) Besser, Enum Pl. Volhyn. (1822) 103.

≡ *Nasturtium austriacum* Crantz, Stirp. Austr. Fasc. 1 (1762) 15.

var. *angustifolia* (Schur) Nyár. in Săvul., Fl. RP Romanicae, 3 (1955) 230.

≡ *Brachylobus austriacus* var. *angustifolius* Schur, Enum. Pl. Transs. (1866) 41.

[0]. [C, SE & E Eu; SW & C As, Cauc]. 2*n* = 16, 16* (Ančev 1981).

?? ***Rorippa palustris*** (L.) Besser, Enum Pl. ed. 1 (1822) 27.

= *Nasturtium palustre* (L.) DC., Syst. Nat. 2 (1812) 191;Velen., Fl. Bulg. (1891) 26.

≡ *Sisymbrium amphibium* L. var. *palustre* L., Sp. Pl. ed. 1 (1753) 657.

= *Rorippa islandica* auct. Kuzmanov in Jordanov, Fl. RP Bulg. 4 (1970) 409, non (L.) Besser.

[0]. [Eu, Cauc, C As, Sib, N Am]. 2*n* = 32.

Rorippa prolifera (Heuff.) Neilr., Aufz. Ung. Slav. Gefass. (1866) 263.

≡ *Nasturtium proliferum* Heuff., Flora 36 (1853) 624.

= *Rorippa palustris* var. *prolifera* (Heuff.) Stoj., Stef. & Kitan., Fl. Bulg. ed. 4, 1 (1966) 465, nom. illeg.

[0]. [SE Eu]. 2*n* = 16* (Ančev 2001).

***Rorippa pyrenaica* group** [*R. pyrenaica, R. thracica*]

Rorippa pyrenaica (All.) Rchb., Deutschl. Fl. 1 (1837) 571.
≡ *Brachiolobus pyrenaicus* All., Fl. Pedemont. 1 (1785) 278.
= *Myagrum pyrenaicum* (All.) Lam., Encycl. 1 (1785) 571.
= *Nasturtium pyrenaicum* (All.) W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 110.
= *Sisymbrium pyrenaicum* L., Syst. Nat. ed. 10 (1759) 1132, nom. illeg.
[0]. [C & S Eu]. 2*n* = 16, 16* (Ančev 1981).

▲ ***Rorippa thracica*** (Griseb.) Fritsch, Verh. Zool.-Bot. Ges. Wien 44 (1895) 317.
≡ *Nasturtium lippizense* var. *thracicum* Griseb., Spicil. Fl. Rumel. 1 (1843) 258.
= *N. pyrenaicum* subsp. *longistylum* Podp., Verh. Zool.-Bot. Ges. Wien 52 (1902) 630.
= *N. thracicum* (Griseb.) Boiss., Fl. Or. 1 (1867) 181; Velen., Fl. Bulg. (1891) 27 et Suppl. (1898) 17.
– *Rorippa lippizensis* auct. Kuzmanov in Jordanov, Fl. RP Bulg. 4 (1970) 413, non (Wulfen) Rchb., Icon. Fl. Germ. 2 (1838) 15.
[0]. [Balk: Al, Bu, Gr, Ma, Tu; ?SE Rm]. 2*n* = 16, 16*, 32, 32* (Ančev & Tomšović 1999).

Rorippa sylvestris (L.) Besser., Enum Pl. (1822) 27.
= *Nasturtium sylvestre* (L.) W.T. Aiton, Hort. Kew, ed. 2, 4 (1812) 110.
= *R. sylvestris* var. *euxina* Velen., Allg. Bot. Z. Syst. 3/4 (1904) 34.
≡ *Sisymbrium sylvestre* L., Sp. Pl. ed. 1 (1753) 657.
– *R. brachycarpa* auct. Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 504, non C.A. Mey.
[0]. [Eu, As, N Af]. 2*n* = 16, 32, 32* (Ančev & Goranova 1997b).

Schivereckia Andrz. ex DC., Syst. Nat. 2 (1821) 300.

▲, CR ***Schivereckia doerfleri*** (Wettst.) Bornm., Feddes Repert. Spec. Nov. Regni Veg. 17 (1921) 36.
≡ *Draba doerfleri* Wettst., Beitr. Fl. Alb. (1892) 22.
[05b]. [Balk: Al, Bu, Ju].

Sinapis L., Sp. Pl. ed. 1 (1753) 668.

Cult ***Sinapis alba*** L., Sp. Pl. ed. 1 (1753) 668.
[02, 03]. [Med]. 2*n* = 24.

Sinapis arvensis L., Sp. Pl. ed. 1 (1753) 668.
var. *schkuhriana* (Rchb.) Thell. in Hegi, Ill. Fl. Mitteleur. 4, 1 (1918) 201.
≡ *S. schkuhriana* Rchb., Icon. Fl. Germ. 1 (1837) 103.
[0]. [Eu, Med, SW As]. 2*n* = 18, 18* (Ančev 1978).

Sisymbrium L., Sp. Pl. ed. 1 (1753) 657.

Sisymbrium altissimum L., Sp. Pl. ed. 1 (1753) 659.
= *S. pannonicum* Jacq., Icon. Pl. Rar. 1 (1784) 12.
[0]. [C, E & SE Eu, C & S W As, Cauc}. 2*n* = 14, 14* (Ančev 1978).

Sisymbrium irio L., Sp. Pl. ed. 1 (1753) 659.
[01a, 02]. [S Eu, Med, C & SW As, Cauc, N Af]. 2*n* = 14, 28, 42.

Sisymbrium loeselii L., Cent. Pl. 1 (1755) 18.
[0]. [C & E Eu, C & SW As, Cauc]. 2*n* = 14, 14* (Ančev 1981).

Sisymbrium officinale (L.) Scop., Fl. Carn. ed. 2, 2 (1772) 26.
≡ *Erysimum officinale* L., Sp. Pl. ed. 1 (1753) 660.
[0]. [Eu, Med, Sib, SW As, Cauc, N Af]. 2*n* = 14, 14* (Ančev 1978).

Sisymbrium orientale L., Cent. Pl. 2 (1756) 24.
var. *subhastatum* (Willd.) O.E. Schulz., Pflanzenreich 4 (1924) 124.
≡ *Brassica subhastata* Willd., Sp. Pl. 3(1) (1800) 550.
[0]. [S Eu, Med, S & SW As, Cauc, N Af]. 2*n* = 14, 14* (Ančev 1978).

Sisymbrium polyceratium L., Sp. Pl. ed. 1 (1753) 658.
[01, 07, 10, 11, 14, 15, 17b, 18, 20]. [S Eu, Med, SW As, N Af]. 2*n* = 28, 28* (Ančev 1981).

En ***Sisymbrium polymorphum*** (Murray) Roth, Man. Bot. 2 (1830) 946.
≡ *Brassica polymorpha* Murray, Nov. Comm. Goeting. 7 (1776) 35.
[02]. [E C & E Eu, E Sib, C As, Cauc].

Sisymbrium strictissimum L., Sp. Pl. ed. 1 (1753) 660.
[02, 04, 05b, 05c, 06, 07, 10]. [C & S Eu]. $2n = 28$.

Subularia L., Sp. Pl. ed. 1 (1753) 642.

Vu ***Subularia aquatica*** L., Sp. Pl. ed. 1 (1753) 642.
[14a, 15]. [CS, C & N Eu, Sib, N Am]. $2n = 28$, c. 36.

Teesdalia W.T. Aiton, Hort. Kew. ed. 2, 4 (1812) 83.

Teesdalia coronopifolia (J.P. Bergeret) Thell., Rep. Spec. Nov. Regni Veg. 10 (1912) 289.
≡ *Thlaspi coronopifolium* J.P. Bergeret, Phytonom. Univ. 3 (1786) 29.
= *Teesdalia lepidium* DC., Syst. Nat. 2 (1821), nom. illeg.
[01b, 08, 09, 11, 12, 14, 17b, 17c, 18, 20]. [C & SE Eu, Med, C & SW As, Cauc]. $2n = 36$, 36* (Ančev 1982).

Thlaspi L., Sp. Pl. ed. 1 (1753) 645.

Thlaspi alliaceum L., Sp. Pl. ed. 1 (1753) 646.
[0]. [C & S Eu, SW As]. $2n = 14$, 14* (Ančev 1983).

? ***Thlaspi alpestre*** Jacq., Enum. Strip. Vindob. 116 (1762) 260.
[14, 15, 17]. [C & SE Eu].

Thlaspi arvense L., Sp. Pl. ed. 1 (1753) 646.
[0]. [Eu, As, Cauc, N Af]. $2n = 14$, 14*(Ančev 1983).

▲ ***Thlaspi bellidifolium*** Griseb., Spicil. Fl. Rumel. 2 (1845) 505.
= *Noccaea bellidifolium* (Griseb.) F.K. Mey., Feddes Repert. 84 (1973) 460
[12, 14]. [Balk: Al, Bu, ?Gr, Ma]. $2n = 14$, 14* (Ančev 2001).

?? ***Thlaspi goesingense*** Halácsy, Österr. Bot. Z. 30 (1880) 173
[05, 07, 12]. [Balk, EC Eu, Med]. $2n = 56$.

Thlaspi kovatsii Heuff., Flora (Regensburg) 36 (1853) 624.
= *Noccaea kovatsii* (Heuff.) F.K. Mey., Feddes Repert. 84 (1973) 461.
= *T. affine* Boiss., Fl. Or. 1 (1867) 327.
= *T. apterum* Velen., Allg. Bot. Z. Syst. 10, 3/4 (1904) 33.
= *T. avalanum* Pančić, Fl. Agri Belgr. (1865) 92.
– *T. alpinum* Jacq. auct. Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 491, non *T. alpinum* (Crantz) Crantz, Stirp. Austr. Fasc. ed. 2 (1769) 23, nec *T. alpestre* Jacq., Enum. Stirp. Vindob. 116 (1762) 260.
– *T. jankae* auct. Velen., Fl. Bulg. Suppl. 1 (1898) 28, non A. Kern., Österr. Bot. Z. 17 (1867) 35.
[05, 08, 09, 11, 12, 14, 15, 16a, 16b, 17]. [SE Eu]. $2n = 14$, 14* (Ančev 2001).

▲ ***Thlaspi ochroleucum*** Boiss & Heldr. in Boiss., Diagn. Pl. Or. ser. 1, 2(8) (1849) 39.
= *Noccaea lutescens* (Velen.) F.K. Mey., Feddes Repert. 84 (1973) 462.
= *N. lutescens* subsp. *drenovskii* F.K. Mey., Feddes Repert. 84 (1973) 462.
= *N. ochroleuca* (Boiss. & Heldr.) F.K. Mey., Feddes Repert. 84 (1973) 461.
= *N. rhodopensis* F.K. Mey., Feddes Repert. 84 (1973) 462.
= *N. versicolor* (Stoj. & Kitan.) F.K. Mey., Feddes Repert. 84 (1973) 462.
≡ *Thlaspi lutescens* Velen., Sitzungsber. Königl. Böhm. Ges. Wiss., Math.-Naturwiss. Cl. 28 1903 (1904) 2.
≡ *T. lutescens* f. *versicolor* Stoj. & Kitan., Izv. Bulg. Bot. Druzh. 9 (1943) 97.
[05, 14, 17a, 17b, ?17c]. [Balk: Al, Bu, Gr, Ju, Ma]. $2n = 14$.

Thlaspi perfoliatum L., Sp. Pl. ed. 1 (1753) 646.
= *Microthlaspi perfoliatum* (L.) F.K. Mey., Feddes Repert. 84 (1973) 453.
[0]. [Eu, Med, SW As, Cauc]. $2n = 14$, 28, 42, 42*(Ančev 1978), 56, 70.

Thlaspi praecox Wulfen in Jacq., Collectanea 2 (1789) 124.
= *Noccaea praecox* (Wulfen) F.K. Mey., Feddes Repert. 84 (1973) 462.

[05, 08, 09, 11, 12, 14, 15, 17a, 17b]. [S Eu].

▲ **subsp. *cuneifolium*** (Griseb. ex Pant.) Clapham, Feddes Repert. 70 (1965) 6.
≡ *T. cuneifolium* Griseb. ex Pant., Österr. Bot. Z. 23 (1873) 268.
= *T. praecox* var. *micranthum* Velen., Allg. Bot. Z. Syst. 10, 3/4 (1904) 34.
– *T. epirotum* auct. Stoj. & Stef., Fl. Bulg. ed. 1, 1 (1924) 490, as *T. praecox* var. *epirotum*, non Halácsy, Consp. Fl. Graec. 1 (1900) 109.
[15]. [Al, Bu, Ma].

subsp. *praecox*
[05, 08, 09, 11, 12, 14, 15, 17a, 17b]. [S Eu].
$2n = 14, 14^*$ (Ančev 1983).

End ***Thlaspi viridisepalum*** (Podp.) Greuter & Burdet., Willdenowia 13 (1983) 96.
= *Noccaea viridisepala* (Podp.) F.K. Mey., Feddes Repert. 84 (1973) 461.
≡ *T. praecox* var. *viridisepalum* Podp., Verh. K. K. Zool.-Bot. Ges. Wien 52 (1902) 632.
[08]. [Bu].

Turritis L., Sp. Pl. ed. 1 (1753) 666.

Turritis glabra L., Sp. Pl. ed. 1 (1753) 666.
= *Arabis glabra* (L.) Bernh., Syst. Verz. Erfurt 1 (1800) 195.
[0]. [Eu, Med, Cauc, SW & C As, Sib, N Am].
$2n = 12, 12^*$ (Ančev 1981, as *A. glabra*).

var. *pseudoturritis* (Boiss. & Heldr.) Fiori, Nuov. Fl. Anal. Ital. 1 (1924) 567.
≡ *Arabis pseudoturritis* Boiss. & Heldr. in Boiss., Diagn. Pl. Or. Nov. ser. 2, 3(1) (1854) 20.

Appendix 1

Species and subspecies of family *Brassicaceae* incorrectly reported for Bulgaria in Jordanov (1970) [1], Tutin & al. (1993) [2] and Jalas & Suominen (1994) [3]. The list also includes the species incorrectly reported for the country by other authors (cf. Kuzmanov 1979) [4]. The literary sources are given with digits in the square brackets.

Arabis soyeri Reut. & Huet (= *Arabis bellidifolia* Jacq., non Crantz; = *Arabis jacquinii* G. Beck) [1, 3].

Arabis verna (L.) R. Br. [4]

Biscutella laevigata L. [4]

Cardamine barbareoides Halácsy [1].

Cardamine palustris L. [1].

Cardamine pratensis L. [1].

Enarthocarpus arcuatus Labill. [4]

Erysimum crepidifolium Rchb. [1].

Erysimum helveticum (Jacq.) DC. [1].

Erysimum exaltatum Andrz. ex Besser [2].

Erysimum pulchellum (Willd.) Gay [2].

Erysimum pusillum subsp. *microstylum* (Hausskn.) Hayek [2].

Erysimum smyrnaeum Boiss. & Balansa [4].

Erysimum strictum P. Gaertn., B. Mey. & Schreb. [3]

Erysimum witmanii Zaw. [2].

Iberis prutii Tineo [4].

Rorippa islandica (Oeder) Borbás [1].

Rorippa lippizensis (Wulfen) Rchb. [1].

Rorippa sylvestris subsp. *kerneri* (Menyh.) Soó [1].

Thlaspi jankae A. Kern. [1].

Acknowledgements: I am grateful to Dr. A. Polatschek and Dr. K. Marhold, and to the late Dr. T.R. Dudley and Dr. P. Tomšović, for the long productive collaboration, synthetic results of which are included in this work. My thanks to Mrs V. Goranova for her assistance and discussions in the course of the karyological studies. Thanks are due to Dr. A.V. Petrova for her generous supply of additional reference data on the distribution of some taxa of *Brassicaceae* in Bulgaria and to Prof. M.A. Fischer (University of Vienna) for kindly providing the Latin diagnosis. I am grateful to anonymous reviewers for the critical notes and useful advice on the manuscript. The study was partly supported by the National Council of Science Research, Ministry of Education and Science (Sofia), Grant B-1503, which is gratefully acknowledged.

References

Al-Shehbaz, I.A. & O'Kane, S.L. 2002. Taxonomy and phylogeny of *Arabidopsis* (*Brassicaceae*). – In: Somerville, C.R. & Meyerowitz, E.M. (eds), The *Arabidopsis* book. Pp. 2-22. Amer. Soc. Pl. Biol., Rockville.

Al-Shehbaz, I.A., Mummenhoff, K. & Appel, O. 2002. *Cardaria*, *Coronopus* and *Stroganowia* are united with *Lepidium* (*Brassicaceae*). – Novon, **12**(1): 5-11.

Ančev, M. 1974. Reports. – In: **Löve, Á.** (ed.), IOPB Chromosome number reports 46. – Taxon, **23**(6): 806.

Ančev, M. 1975. Reports. – In: **Löve, Á.** (ed), IOPB chromosome number reports 49. – Taxon, **24** (4): 514.

Ančev, M. 1976. Reports. – In: **Löve, Á.** (ed.), IOPB Chromosome number reports 53. – Taxon, **25**(4): 495-496.

Ančev, M. 1978. Reports. – In: **Löve, Á.** (ed.), IOPB Chromosome number reports 62. – Taxon, **27**(5-6): 532-533.

Ančev, M. 1981. Reports. – In: **Löve, Á.** (ed.), IOPB Chromosome number reports 73. – Taxon, **30**(4): 855.

Ančev, M. 1982. Reports. – In: **Löve, Á.** (ed.), IOPB Chromosome number reports 76. – Taxon, **31**(3): 596.

Ančev, M. 1983. Karyology and reproductive characteristics of some weedy and ruderal *Cruciferae* species in Bulgaria. – In: **Velchev, V.** (ed.), Third Natl. Conf. Bot., Sofia, 26-30.10.1981. Pp. 232-239. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).

Ančev, M. 1984. Karyological characteristics of *Alyssum umbellatum* Desv. and *Alyssum hirsutum* M. Bieb. (*Brassicaceae*). – In: **Dryanovska, O.A.** (ed.), Proc. Third Natl. Conf. Cytogen., October, 8-12, 1984, Plovdiv. Pp. 428-431. Bulg. Acad. Sci., Sofia (in Bulgarian).

Ančev, M. 1991. Genus *Alyssum* L. in Bulgarian flora. – In: **Kožuharov, S.I.** & **Kuzmanov, B.A.** (eds), Evolution of Flowering Plants and Fflorogenesis. *Asteraceae, Brassicaceae, Poaceae*, *Cyperaceae*. Vol. 2, pp. 85-118. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).

Ančev, M. 1995. Karyological variation and taxonomical notes on *Erysimum* L. (*Brassicaceae*) in Bulgarian flora. – Giorn. Bot. Ital., **129**(1): 94-103.

Ančev, M. 1997. Formdifferentiation patterns and evolutionary trends in *Brassicaceae* in Bulgarian flora. – Phytol. Balcan., **3**(2-3): 65-74.

Ančev, M. 2001. *Brassicaceae* Burnett (*Cruciferae* Jussieu) in Bulgarian flora. Taxonomic structure, distribution, phytogeographical relations, speciation patterns and evolutionary trends. *DSc Thesis*. Inst. Bot., Bulg. Acad. Sci., Sofia (in Bulgarian, unpubl.).

Ančev, M. 2006. Polyploidy and hybridization in Bulgarian *Brassicaceae*: Distribution and evolutionary role. – Phytol. Balcan., **12**(3): 357-366.

Ančev, M. & Dudley, T.R. 1981. Reports. – In: **Löve, Á.** (ed.), IOPB Chromosome number reports 73. – Taxon, **30**(4): 856.

Ančev, M. & Goranova, V. 1997a. *Conringia planisiliqua* Fischer & C.A. Meyer (*Brassicaceae*) – a new species in the Bulgarian flora. – Phytol. Balcan., **3**(1): 15-18.

Ančev, M. & Goranova, V. 1997b. Reports (855-872). – In: **Kamari, G., Felber, F. & Garbari, F.** (eds), Mediterranean chromosome number reports 7. – Fl. Medit., **7**: 246-258.

Ančev, M. & Hardalova, R. 1989. Karyological study of Bulgarian *Brassicaceae* species. – In: **Dryanovska, O.A.** (ed.), Fourth Natl. Conf. Cytogen., 2-6 October, 1989, Vratsa. Pp. 186-188. Union of Bulg. Scientists Publishing House, Sofia.

Ančev, M., Hardalova, R. & Trifonova, D. 1987. Cytotaxonomic study of the perennial species of *Erysimum* L. in Bulgaria. – In: **Kuzmanov, B.** (ed.), Fourth Natl. Conf. Bot., Sofia, 1987. Pp. 24-21. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).

Ančev, M., Marhold, K. & Goranova, V. 1997. Reports (873-877). – In: **Kamari, G., Felber, F. & Garbari, F.** (eds), Mediterranean chromosome numbers reports 7. – Fl. Medit., **7:** 258-261.

Ančev, M. & Peneva-Nikolova, V. 1984. Reports. – In: **Löve, Á.** (ed.), IOPB Chromosome number reports 82. – Taxon, **33**(1): 131-132.

Ančev, M. & Polatschek, A. 1998. Three new species of *Erysimum* L. (*Brassicaceae*) from Bulgarain flora. – Ann. Naturhist. Mus. Wien, B, **100**: 725-737.

Ančev, M. & Polatschek, A. 2003. *Erysimum bulgaricum* (*Brassicaceae*), a newly distingushed species for the Balkan Peninsula. – Ann. Naturhist. Mus. Wien, B, **104**: 691-698.

Ančev, M. & Polatschek, A. 2006. The genus *Erysimum* (*Brassicaceae*) in Bulgaria. – Ann. Naturhist. Mus. Wien, B, **107:** 227-273.

Ančev, M. & Tomšović, P. 1999. The *Rorippa pyrenaica* group (*Brassicaceae*) in Balkan Peninsula. – Folia Geobot., **34**: 261-276.

Ančev, M. & Uzunov, D. 2002. *Alyssum orbelicum*: a new highmountain species of sect. *Odontarrhena* (*Brassicaceae*) from Southwest Bulgaria. – Phytol. Balcan., **8**(1): 25-30.

Andreev, N. 1982. Reports. – In: **Löve, Á.** (ed.), IOPB chromosome number reports 27. – Taxon, **31**(3): 575-576.

Assyov, B. & Petrova, A. (eds). 2006. Conspectus of the Bulgarian Vascular flora. Distribution Maps and Floristic Elements. BBF, Sofia (in Bulgarian).

Brummitt, R.K. & Pawell, C.E. (eds). 1992. Authors of Plant Names. Royal Bot. Gard., Kew.

Burdet, H.M. 1967. Contribution à l'étude caryologique des genres *Cardaminopsis*, *Turritis* et *Arabis* en Europe. – Candollea, **22**(1): 107-156.

Cheshmedzhiev, I. 1976. Reports. – In: **Löve, Á.** (ed.), IOPB chromosome number reports 54. – Taxon, **25**(5-6): 642-643.

Cheshmedzhiev, I. 1977. Floristic materials and critical noteson the Bulgarian flora. – Fitologiya, 7: 75-83 (in Bulgarian).

Cheshmedzhiev, I. & Stoychev, G. 1994. New materials and chorological data on the Bulgarian flora. – Nauchni Trudove Selskost. Inst. "Vasil Kolarov", **39**: 333-340 (in Bulgarian).

Delipavlov, D. 1980. Neue Materialen zur Flora Bulgariens. – Feddes Repert., **91**(1-2): 63-67.

Delipavlov, D. & Cheshmedzhiev, I. 1983. New taxa for the flora of Bulgaria. – In: **Velchev, V.** (ed.), Third Natl. Conf. Bot., Sofia, 26-30.10.1981. Pp. 158-163. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).

Delipavlov, D. & Cheshmedzhiev, I. 2003. Key to the Plants of Bulgaria. Agrarian Univ. Acad. Press, Plovdiv (in Bulgarian).

Delipavlov, D., Cheshmedzhiev, I. & Popova, M. 1984**.** New materials and chorological data about the flora of Bulgaria. – Nauchni Trudove Selskost. Inst. "Vasil Kolarov", **29**(4): 95-99 (in Bulgarian).

Dimitrov, D. 1994. New chorological data for the flora of Bulgaria. – God. Sofiisk. Univ. "St. Kliment Ohridski", Biol. Fak., 2. Bot., **85**: 211-213.

Dimitrov, D. 1997. *Rochlena* (*Borraginaceae*), *Rume*x *maritimus* (*Polygonaceae*) and *Schivereckia doerfleri* (*Cruciferae*), new taxa for the flora of Bulgaria. – Bocconea, **5**(2): 457-460.

Dimitrov, D. 2001. *Armoracia macrocarpa* (Waldst. & Kit.) Baumg. – In: **Greuter, W. & Raus, T.** (eds), Med-Checklist Notulae, 20. – Willdenowia, **31**: 322-323.

Dimitrov, D. 2002a. New data for the vascular flora in the Western Frontier Mountains. – God. Sofiisk. Univ. "St. Kliment Ohridski", Biol. Fak., 2. Bot., **92**: 129-133.

Dimitrov, D. (ed.). 2002b. Conspectus of the Bulgarian Vascular flora. Distribution Maps and Floristic Elements. Ed. 2. BSBCP, Sofia.

Dimitrov, D. 2006. Reports 30-34. – In: **Vladimirov, V., Feruzan, D., Nikolić, T., Stevanović, V. & Tan, Kit** (comp.), New floristic records in the Balkans: 2. – Phytol. Balcan., **12**(2): 279-301

Dimitrov, D. & Nikolov, I. 1998. A new taxon and chorological data on the vascular flora of Bulgaria. – Phytol. Balcan., **4**(3): 121-125.

Dimitrov, D. & Sidjimova, B. 2003. New chorological data about the flora of Osogovo Mountain. – God. Sofiisk. Univ. "St. Kliment Ohridski" Biol. Fak., **95**(4): 261-268.

Greuter, W., Burdet, H.M. & Long, G. (eds). 1986. Med-Checklist. A Critical Inventory of Vascular Plants of the Circum-mediterranean Countries. Vol. 3. Dicotyledones (*Convolvulaceae - Labiatae*). C.B. de Geneve, Geneve.

Gussev, Ch., Uzunov, D., Denchev, C. & Apostolov, K. 1998. New chorological data on vascular plants in the Eastern Rhodopes. – Phytol. Balcan., **4**(1-2): 187-195.

IUCN. 2001. IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. Gland & Cambridge.

Jalas, J. & Suominen, J. (eds). 1994. Atlas florae Europaeae. Distribution of Vascular Plants in Europe. Vol. **10**. *Cruciferae* (*Sisymbrium* to *Aubrieta*). The Commitee for Mapping the Flora of Europe & Societas Biologica Fennica Vanamo, Helsinki.

Jalas, J., Suominen, J. & Lampinen, R. (eds). 1996. Atlas Florae Europaeae. Distribution of Vascular Plants in Europe. Vol. **11**. *Cruciferae* (*Ricotia* to *Raphanus*). The Commitee for Mapping the Flora of Europe & Societas Biologica Fennica Vanamo, Helsinki.

Jordanov, D. (ed.). 1970. Flora Reipublicae Popularis Bulgaricae. Vol. **4**. In Aedibus Acad. Sci. Bulgaricae, Serdicae (in Bulgarian).

Kostadinova, S. & Dimitrov, D. 2002. New data on the vascular flora of Mt Belasitsa. – Phytol. Balcan., **8**(3): 293-306.

Kozhuharov, S. (ed.). 1992. Field Guide to the Vascular Plants in Bulgaria. Naouka & Izkoustvo, Sofia (in Bulgarian).

Kozhuharov, S., Andreev, N. & Peev, D. 1980. Conspectus of the vascular plants of Bulgaria. Inst. Bot., Bulg. Acad. Sci., Sofia (in Bulgarian).

Kožuharov, S. & Kuzmanov, B. 1965. A contribution to the karyological knowledge of the Bulgarian plants. – Caryologia, **18**: 349-351.

Kožuharov, S. & Petrova, A. 1976. Chromosome studies of the higher plants with euroasiatic distribution in Bulgaria. – Fragm. Flor. Geobot., **22**(3): 301-322.

Krusheva, R. 1975. Reports. – In: **Löve, Á.** (ed.), IOPB chromosome number reports L. – Taxon, **24**(4): 676-677.

Kuzmanov, B. 1979. "Flora Europaea" and the taxonomic studies on vascular plants in Bulgaria. – Candollea, **34**: 11-19.

Kuzmanov, B. & Kožuharov, S. 1968. Flora Reipublicae Popularis Bulgaricae. – Taxon, **17**(2): 205-210.

Kuzmanov, B. & Kožuharov, S. 1969: Chromosome numbers of flowering plants in Bulgaria. 2. – Izv. Bot. Inst. (Sofia), **19**: 109-115

Kuzmanov, B. & Kožuharov, S. 1971. Aliens in the Bulgarian flora. – Boissiera, **19**: 319-327.

Loon, J.C. van & Setten, A.K. van. 1982. Reports. – In: **Löve, Á.** (ed.), IOPB chromosome number reports 76. – Taxon, **31**(3): 589-592.

Marhold, K. & Ančev, M. 1999. *Cardamine penzesii,* a rediscovered taxon of the *C. pratensis* group (*Cruciferae*). – Ann. Bot. Fenn., **36:** 171-180.

Marhold, K., Ančev, M. & Kit Tan. 1996. A new subspecies of *Cardamine amara* (*Brassicaceae*) from Bulgaria and Greece. – Ann. Bot. Fenn., **33**: 171-180.

Meyer, F.K. 2006. Kritische Revision der "*Thlaspi*"– Arten Europas, Afrikas und Vorderasien. Specieler Teil. IX. *Noccaea* Moench. – Haussknechtia, **12**: 1-341.

Niketić, M. 2000. New taxa for the flowering flora of Serbia and adjacent territories. Abstracts. Sixth Simp. on flora of SE Serbia and Adjacent Territories, July 4-8, 2000. Pp. 32-33. Edit. Vuk Karadžić, Niš (in Serbian).

O'Kane, S.L. & Al-Shehbaz, I.A. 1997. A synopsis of *Arabidopsis* (*Brassicaceae*). – Novon, **7**: 323-327.

Pashaliev, I. & Dimitrov, D. 1995. New plants for the flora of Slavjanka Mts. – In: **Tsankov, G.** (ed.), Proc. Jubl. Siymp. on the Centenary of Acad. Boris Stefanov, 2-3 June, 1994, Sofia. Vol. 2, pp. 46-49. PSSA, Sofia (in Bulgarian).

Peev, D. 1975. Chromosome numbers and karyotypes. – Dokl. Bulg. Akad. Nauk., **28**(4): 521-523.

Petrova, A.S. 2004. A contribution to the flora of East Bulgaria. – Phytol. Balcan., **10**(2-3): 201-205.

Petrova, A.S., Gerassimova, I. & Vassilev, R. 1998. Contribution to the flora of Eastern Rhodope Mountains, Bulgaria. – Hist. Nat. Bulg., **9**: 115-127 (in Bulgarian).

Popova, M. 1968. Chromosomenzahl Einiger Pflanzen von der Bulgarichen Flora. – Nauchni Trudove Selskost. Inst. "Vasil Kolarov", **17**: 189-194 (in Bulgarian).

Stanev, S. 1970. Materials and notes on the flora of Bulgaria. – Izv. Bot. Inst. (Sofia), **19**: 219-222 (in Bulgarian).

Stanev, S. 1975. Materials on Bulgarian flora with critical notes. – In: **Velchev, V. & al.** (eds), In Hon. Acad. Daki Jordanov. Pp. 253-263. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).

Stanev, S. 1981. Contribution for the flora of the Eastern Balkan range with kritical notes. – Izv. Mus. Yuzhna Bulgaria, **7**: 51-59 (in Bulgarian).

Stanev, S. 1984. A small contribution to the Flora of the Middle Rhodopes and the Middle Stara Planina. – Izv. Mus. Yuzhna Bulgaria, **10**: 13-16 (in Bulgarian).

Stefanov, B. & Kitanov, B. 1962. Die kultigenen Pflanzen und kultigene Vegetation in Bulgarien. Bulg. Akad. Wiss., Sofia (in Bulgarian).

Stojanov, N. & Stefanov, B. 1924. Flora of Bulgaria. Ed. 1, vol. **1**. State Printing House, Sofia (in Bulgarian).

Stojanov, N. & Stefanov, B. 1933. Flora of Bulgaria. Ed. 2. Guttenberg Press, Sofia (in Bulgarian).

Stojanov, N. & Stefanov, B. 1948. Flora of Bulgaria. Ed. 3. Univ. Press, Sofia (in Bulgarian).

Stojanov, N., Stefanov, B. & Kitanov, B. 1966. Flora of Bulgaria. Ed. 4, vol. **1**. Naouka & Izkoustvo, Sofia (in Bulgarian).

Tutin, T.G., Burges, N.A., Chater, O.A., Edmondson, J.R., Heywood, V.H., Moore, D.M., Valentine, D.H., **Walters, S.M. & Webb, D.A.** (eds). 1993. Flora Europaea. Ed. 2, vol. **1**. *Psilotaceae* to *Platanaceae*. Cambridge Univ. Press, Cambridge.

Vassilev, P. 1975. New taxa and chorological data on Bulgarian Flora. – Fitologiya, **2**: 80-81 (in Bulgarian).

Velchev, V. (ed.). 1984. Red data book of the People's Republic of Bulgaria. Vol. **1**. Plants. Publishing House Bulg. Acad. Sci., Sofia (in Bulgarian).

Zhelev, P. & Gogushev, G. 2000. Floristic findings in the region of Petrich. – In: **Pipkov, P., Draganova, I.N. & Zhelev, P.** (eds), Collection of scientific papers "75 Godini Visshe Lesotehnichesko Obrazovanie". Pp. 53-55. Sofia (in Bulgarian).