

Reclassifications and new names in vascular plants 1.

Reklasifikace a nová jména u cévnatých rostlin 1.

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Hundred and fifty one new nomenclatural combinations resulting mostly from taxonomic reclassifications, are proposed for various taxa of vascular plants. Five new nothogeneric names are proposed for intergeneric hybrids. Notes are added to some proposals (29); those from the taxonomic point of view (18) refer to the genera *Adonis* (acceptance of the segregant *Chrysocyathus*), *Festuca* (acceptance of the segregant *Schedonorus*), *Oxalis* (acceptance of *Sassia* as a separate genus), *Thlaspi* (acceptance of *Noccaea*), *Knautia* (reacceptance of the genus *Trichera*), and to the species *Bombycilaena californica*, *Gentianella praecox* and *Jovibarba globifera*. Nomenclatural notes (11) refer mostly to the generic names *Achnatherum* (nomenclature of a section), *Alsine*, *Crinitina*, *Logfia*, *Orites* and *Rubus* (nothosubgeneric taxa) and to the nomenclature of subspecific taxa of *Vaccaria hispanica*.

Key words: Taxonomic reclassifications, nomenclature, vascular plants; *Adonis*, *Aster*, *Avenula*, *Bombycilaena*, *Botrychium*, *Culathiana*, *Chrysocyathus*, *Cornus*, *Crinitina*, *Drymochloa*, *Festuca*, *Filago*, *Galeobdolon*, *Gentiana*, *Gentianella*, *Helianthemum*, *Helictotrichon*, *Jovibarba*, *Klasea*, *Knautia*, *Lamium*, *Logfia*, *Malosorbus*, *Micropus*, *Noccaea*, *Orites*, *Oxalis*, *Pseudolysimachion*, *Rhodax*, *Rubus*, *Sassia*, *Sceptridium*, *Schedolium*, *Schedonorus*, *Sedum*, *Sempervivum*, *Serratula*, *Silene*, *Sparganium*, *Swida*, *Thlaspi*, *Tormimalus*, *Trichera*, *Vaccaria*, *Veronica*

Introduction

This paper follows earlier ones published – sometimes in a more extensive form – in *Folia Geobotanica et Phytotaxonomica* over the period 1970–1977 under the title “New names in Phanerogamae” (e. g. Holub 1973a) and later as short contributions (Holub 1983, 1984b) also published there. Following the new editorial policy of the editors of the above mentioned journal, it is no longer possible to publish taxonomic-nomenclatural studies of this type there and these will therefore be published elsewhere, e. g. as here in *Preslia*.

The basic reason for the taxonomic-nomenclatural changes is the acceptance of a more natural (here mostly a narrower) concept of the generic unit. Of the 151 proposed changes c. 131 fall into this category. The taxonomic changes of this type are listed alphabetically below. The following data are given in brackets after the accepted generic name:

1. Name of the genus from which the new accepted genus was segregated.
2. Number of changes in the list of new proposals referring to the accepted generic name (given in the following section).
3. Reference to the literature connected at least in some way with the separation of the genus accepted in this paper.

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The following are the taxonomic changes which have been made (altogether they refer to 43 genera and 131 taxa below generic level): *Alsine* L. (*Stellaria* L.; 1; Dostál 1984), *Aphyllon* Mitchell (*Orobanche* L.; 1; Holub 1990; here also a purely nomenclatural problem is present – priority of the name *Aphyllon* Mitchell 1769 over *Thalesia* Rafin. ex Britton 1894), *Avenula* (Dumort.) Dumort. (*Avena* L. vel *Helictotrichon* Besser; 6; Holub 1976b, 1980), *Batrachium* S. F. Gray (*Ranunculus* L.; 1; more generally accepted genus), *Bombycilaena* (DC.) Smolj. (*Micropus* L.; 1; Smoljaninova 1955, 1959, Holub 1976a, e), *Calathiana* Delarbre (*Gentiana* L.; 6; Holub 1973a), *Chaenorhinum* (DC.) Reichenb. (*Linnaria* Miller; 1; generally accepted genus), *Chamerion* (Rafin.) Rafin. (*Epilobium* L.; 1; Holub 1972), *Chrysocyathus* Falconer (*Adonis*; 18; Chrtek & Slavíková 1978), *Comastoma* Toyokuni (*Gentianella* Moench; 1; Toyokuni, Bot. Mag. Tokyo 74: 198, 1961), *Crinitina* Soják (*Aster* L.; 1; Soják 1982), *Cynoxylon* (Rafin.) Rafin. (*Cornus*; 1; Holub 1982, 1997b, Holub & Bertová 1985a), *Drymochloa* Holub (*Festuca* L.; 4; Holub 1984a), *Evax* Gaertner (*Filago* L.; 1; Chrtek & Holub 1963, Holub 1976a, d), *Fallopia* Adanson (*Polygonum* L.; 1; Holub 1971), *Galeobdolon* Adanson; Hudson (*Lamium*; 1; Holub 1970b); *Gentianella* Moench (*Gentiana* L.; 3; Holub 1967b, Holub & Bertová 1985b), *Helictotrichon* Besser (*Avena* L.; 3; Holub 1976b, 1977a, 1980), *Hylotelephium* Ohba (*Sedum* L.; 1; Ohba 1977, Holub 1978, Grulich 1984), *Jovibarba* Opiz (*Sempervivum*; 1; Holub & Pouzar 1967; Holub 1967a); *Klasea* Cass. (*Serratula*; 5; Holub 1977b), *Kohlruschia* (*Petrorhagia* (Ser.) Link; 1; Holub, Měsíček & Javůrková 1972), *Logfia* Cass. (*Filago* L.; 3; Chrtek & Holub 1963; here also a nomenclatural reason is present – priority of the name *Logfia* Cass. 1819 over *Oglifa* (Cass.) Cass. 1822), *Noccaea* Moench (*Thlaspi* L.; 13; F. K. Meyer 1973), *Omalotheca* Cass. (*Gnaphalium* L.; 2; Holub 1976f), *Otites* Adanson (*Silene* L.; 4; Holub 1970a, Holub, Měsíček & Javůrková 1971), *Pleconax* Rafin. (*Silene* L.; 1; Šourková 1972), *Preonanthus* Schur (*Pulsatilla* Miller; 1; Skalický 1985), *Pseudolysimachion* Opiz (*Veronica* L.; 5; Holub 1967a, Holub & Pouzar 1967, M. Fischer 1974), *Psyllium* Miller (*Plantago* L.; 1; Soják 1972, Holub 1973a), *Rhodax* Spach (*Helianthemum* Miller; 6; Holub 1970), *Rostraria* Trin. (*Koeleria* Pers.; 1; Holub 1974); *Sassia* Molina (*Oxalis* L.; 3; Holub & Holubičková 1980; Holub 1997a), *Scariola* F. W. Schmidt (*Lactuca*; 1; Soják 1962), *Sceptridium* Lyon (*Botrychium* L.; 3; Holub 1973b), *Schedonorus* Pal. Beauv. (*Festuca* L.; 8; the genus again accepted in this contribution – see below), *Swida* Opiz (*Cornus* L.; 5; Holub 1982, Holub & Bertová 1985a), *Trichera* Schrader ex Roemer et Schultes (*Knautia* L.; 11; Soják 1980, cf. etiam Holub 1979).

In addition to the above reclassifications of subgenera, sections, species and subspecies at the generic level, five nothogeneric names are proposed: $\times$ *Filfia* = *Filago* L. $\times$ *Logfia* Cass. (with one nothospecies), $\times$ *Reyllopia* = *Fallopia* Adanson $\times$ *Reynoutria* Houtt., $\times$ *Ribularia* = *Grossularia* Miller $\times$ *Ribes* L. (with one nothospecies), $\times$ *Schedolium* = *Lolium* L. $\times$ *Schedonorus* Pal. Beauv. (with three nothospecies) and $\times$ *Tormimalus* = *Malus* L. $\times$ *Torminalis* Medicus (with one nothospecies). Further reasons for changes of names are usually of an individual nature, referring mostly to single, particular cases, and in this contribution they are used only rarely, viz. the following cases: necessity to propose a new combination for a subspecies when the species epithet has been changed (*Aconitum altissimum*, *Avenula lodunensis* and *Dactylorhiza comosa*); transfer of a subspecies to another species (*Sparganium*); elevation of a variety to species (*Drymochloa grandis*, *Rostraria amblyantha*); elevation of a section to subgenus (*Sceptridium*, *Swida*); change of the concept of a species type followed by the change of the epithet of the subspecies, which had

formerly been considered as the type subspecies (*Vaccaria hispanica*); elevation of a nothomorph to the level of a nothosubspecies (*Dactylorhiza × braunii*); elevation of a subspecies to the species level – using either the same epithet – *Avenula aenigmatica*, *A. arundana*, *A. lusitanica* and *Pseudolysimachion klokovii*, or a different epithet in the new rank (“nomen novum pro statu novo”) – *Chaenorrhinum montiserratorum*, *Helictotrichon austro-ibericum*, *H. romeroi-zarcoi* and *Sedum pseudomontanum*; lowering of taxonomic rank from the genus to subgenus (*Swida*); lowering of subgenus to subsection (*Chrysocyathus*). Lowering of a species to a subspecies being the result of the acceptance of a species name having priority is necessary in the cases of *Avenula marginata* (*A. lodunensis*), *Gentianella bohémica* (*G. praecox*) and *Veronica pseudolongifolia* (*Pseudolysimachion longifolium*). Another example of the lowering of taxonomic rank is the case of a reclassification of an (individual) colour variation in *Preonanthus scherffellii* – from a variety to a form. A purely nomenclatural change is connected with a subspecies of *Solidago virgaurea* and with the transfer of a section to another genus (*Achnatherum*).

In 91 % of cases the changes of names are for taxonomic reasons and only 9 % relate to nomenclatural reasons.

Annotated list of proposals of reclassifications and new names

Where it is useful or necessary, some explanatory notes have been added to selected proposals of new combinations in this list (28 cases); they are introduced by the designation “Note” and printed in petit letters. In cases when a new combination also includes a change of the taxonomic status, a synonym (if it exists) which determines the use of the specific or infraspecific epithet (i. e. parabasionym – cf. Holub 1988: 386–388) is added to the basionym. The entries dealing with hybrids are complemented with information on the parentage (i. e. by a parental combination) given in square brackets. In single cases an explaining synonym is given in square brackets at the end of the entry.

***Achnatherum* sect. *Achnatheropsis* (Cvelev) Holub, comb. nova.** – Bas.: *Stipa* sect. *Achnatheropsis* Cvelev, Novosti Sist. Vysš. Rast. 9: 56, Leningrad 1972. – Syn.: *Achnatherum* sect. *Protostipa* Cvelev, Bot. Žurn. 78/10: 92, 1993 [nomen illegitimum].

Note: Cvelev in 1993 did not transfer the name of the section *Achnatheropsis* Cvelev, described by him originally in *Stipa*, to the genus *Achnatherum*, as follows from the rules of the present Code ICBN 1994 but used the earlier rule from the preceding editions of the Code, which did not permit the use of names of the type “*Dyonisia* sect. *Dyonisiopsis*”; therefore instead of acceptance of the combination *Achnatherum* sect. *Achnatheropsis* he proposed a new name for that taxon in *Achnatherum* – *Achnatherum* sect. *Protostipa* Cvelev. The above mentioned rule referring to the names of the example “*Dyonisia* sect. *Dyonisiopsis*” persisted in Codes for a long time (until the Code ICBN 1978, Leningrad – Art. 54 and Art. 21). This rule was, however, changed in the Code (ICBN 1983, Sydney) and this type of names was permitted and acknowledged as the only one possible in similar cases (see the Code ICBN 1983, Art. 54, Ex. 2; ICBN 1994 – Art. 11.6). The above new combination is proposed here in the sense of this rule.

***Aconitum altissimum* subsp. *penninum* (Ser.) Holub, comb. nova.** – Bas.: *Aconitum lycoctonum* var. *penninum* Seringe, Mus. Helvet. Hist. Natur. 1: 134, Berne et Genève 1823.

Note: *Aconitum altissimum* Miller 1768 is the earliest species name referring to the taxon usually given as *A. vulparia* Reichenb. 1819 or *A. lycoctonum* (auct. non L. sensu orig.).

***Alsine postii* (Holmboe) Holub, comb. nova.** – Bas.: *Stellaria media* subsp. *postii* Holmboe, Bergen Mus. Skrift. 1/2: 70, 1914. – Syn.: *Stellaria postii* (Holmboe) Slavík, Jarošímová et Chrtek, Candollea 48: 224, 1993.

Note: *Stellaria* L. 1753 consists of several groups of species which differ significantly in their vegetative features. In addition to the group *Stellaria nemorum* agg., which was accepted by the present author as a separate genus *Hylebia* (W. D. J. Koch) Fourreau 1868 (Holub 1984b), a further natural group of five species is represented by *Stellaria media* agg.; Dostál (1984: 4) separated this group as an independent genus under a new name *Alsinula*. With regard to the existence of the legitimate name *Alsine* L. 1753 with the same type species *Alsine media* L. as in *Alsinula*, Dostál's new generic name is superfluous and illegitimate.

***Aphyllon purpureum* (Heller) Holub, comb. nova.** – Bas.: *Thalesia purpurea* A. A. Heller, Bull. Torrey Bot. Club 24: 313, tab. 310, New York 1897.

***Avenula aenigmatica* (Lang) Holub, comb. nova et status novus.** – Bas.: *Helictotrichon blavii* subsp. *aenigmatica* Lang, Bibl. Bot. 144: 181, Stuttgart 1995.

***Avenula arundana* (Romero Zarco) Holub, status novus.** – Bas.: *Avenula gervaisii* subsp. *arundana* Romero Zarco, Lagasalia 13: 108–109, Sevilla 1984.

***Avenula cintrana* (Röser) Holub, comb. nova.** – Bas.: *Helictotrichon cintratum* Röser, Taxon 41: 60, Berlin 1992. [= *Avenula occidentalis* (Gervais) Holub 1976].

***Avenula lodunensis* subsp. *marginata* (Lowe) Holub, status novus et comb. nova.** – Bas.: *Avena marginata* Lowe, Transact. Cambridge Philos. Soc. 6: 529, 1838.

***Avenula lusitanica* (Romero Zarco) Holub, status novus.** – Bas.: *Avenula pratensis* subsp. *lusitanica* Romero Zarco, Lagasalia 13: 95, Sevilla 1984.

***Avenula pseudoviolacea* (Dalla Torre) Holub, comb. nova.** – Bas.: *Avena pseudo-violacea* Kerner ex Dalla Torre, Atlas Alpenpfl., 228, Wien 1882.

***Batrachium fucoides* (Freyn in Willk. et Lange) Holub, comb. nova.** – Bas.: *Ranunculus fucoides* Freyn in Willkomm et Lange Prodr. Fl. Hispan. 3: 912, Stuttgartiae 1888.

***Bombycilaena californica* (Fischer et C. A. Meyer) Holub, comb. nova.** – Bas.: *Micropus californicus* Fischer et C. A. Meyer, Index Sem. Horti Bot. Imper. Petropol. 2: 42, Petropoli 1836.

Note: The authorship of the combination *Bombycilaena californica* is sometimes attributed to Smoljaninova (cf. Anderberg 1991: 173), but without any quotation of the place of its publication; the combination is also missing in Index Kewensis. When *Micropus* L. is divided into two genera – *Micropus* L. s. s. and *Bombycilaena* (DC.) Smolj. – the Californian plants definitely belong to the latter genus and the above proposal follows from this. However, it will be necessary in the future to determine whether the Californian species has evolved from some of the American taxa of *Filagineae* rather than being a component of the Mediterranean genus *Bombycilaena*.

***Calathiana bavarica* subsp. *subacaulis* (Gaudin) Holub, comb. nova.** – Bas.: *Gentiana bavarica* (var.) B *subacaulis* Schleicher ex Gaudin Fl. Helvet. 2: 284, Turici 1828. – Syn.: *Gentiana bavarica* subsp. *subacaulis* (Gaudin) G. Müller, Feddes Repert. 93: 658, 1982.

***Calathiana fenetii* (Litard. et Maire) Holub, comb. nova.** – Bas.: *Gentiana verna* subsp. *fenetii* Litardi re et Maire, M m. Soc. Sci. Natur. Maroc. 4: 14, Rabat, 1924. – Syn.: *Gentiana fenetii* (Litard. et Maire) Romo, Lagasalia 15 (Extra): 288, 1988.

***Calathiana magellensis* (Ronn.) Holub, comb. nova.** – Bas.: *Gentiana verna* f. *magellensis* Vaccari ex Ronniger, Mitteil. Naturwiss. Ver. Steiermark 52/1915: 326, Graz 1916. – Syn.: *Gentiana magellensis* (Ronn.) Tamaro, Archivio Bot. Biogeogr. 62: 51 et 54, 1986.

***Calathiana sierrae* (Briquet) Holub, comb. nova.** – Bas.: *Gentiana sierrae* Briquet, Candollea 4: 323, Gen ve 1931. [= *Calathiana nevadensis* (Soltok.) Holub 1973].

***Calathiana verna* subsp. *delphinensis* (Beauverd) Holub, comb. nova.** – Bas.: *Gentiana delphinensis* Beauverd, Bull. Soc. Bot. Gen ve 27: 103, 1937. – Syn.: *Gentiana verna* L. subsp. *delphinensis* (Beauverd) H. Kunz, Le Monde des Plantes 339: 2, 1963 [n.v.; cf. G. M ller, Feddes Repert. 93: 677, Berlin 1982].

***Chaenorrhinum granatense* (Willk.) Holub, comb. nova.** – Bas.: *Linaria granatensis* Willkomm, Bot. Zeitung 5: 877, Berlin 1847.

***Chaenorrhinum montserratorum* Holub, nomen novum pro statu novo.** – Nomen substitutum: *Chaenorrhinum organifolium* subsp. *cotiellae* P. Monserrat Recoder et G. Monserrat Mart , Anales Jard n Bot. Madrid 43: 44, 1986.

***Chamerion xprantlii* (Dalla Torre et Sarnth.) Holub, comb. nova.** – Bas.: *Epilobium xprantlii* Dalla Torre et Sarnth in Fl. Gef rst. Grafschaft Tirol Vorarlberg Lichtenstein 6/2: 872, Innsbruck 1909 (nomen), decriptio vide Prantl, Deutsch. Bot. Monatschr. 1: 3-4, Sonderhausen 1883. [= *Chamerion dodonaei* (Vill.) Holub $\times$ *C. fleischeri* (Hochst.) Holub].

***Chrysocyathus* sect. *Consiligo* (DC.) Holub, comb. nova.** – Bas.: *Adonis* sect. *Consiligo* De Candolle Reg. Veget. Syst. Natur. 1: 224, Parisiis 1817.

Note: Regarding its species contents, *Adonis* L. 1753 is a rather heterogeneous genus, and therefore Chrtek & Slav kov  (1978) proposed to divide it into three genera: *Adonis* L. 1753, *Adonanthe* Spach 1839 and *Chrysocyathus* Falconer 1839. A year later these authors (Chrtek & Slav kov  1979) discussed the relation between the generic names *Chrysocyathus* Falconer 1839 and *Calathodes* J. D. Hooker et T. Thomson 1855. In my opinion, distinguishing *Adonanthe* and *Chrysocyathus* as separate genera is rather exaggerated, as there are no important diagnostic characters between the two groups. A division of *Adonis* into two genera does, however, seem to me to be a more natural solution. An analogous classification (but on a sectional level) is that accepted in the second edition of *Flora Europaea*, vol. 1 (Tutin & Akeroyd 1993), where perennial plants of *Adonis* are merged into one section, standing against the second section containing annual species. These two groups accepted here as genera, differ substantially from an ecobiological point of view (biomorph type) and also morphologically and phytogeographically. *Adonis* s. s. includes annuals of weedy character, with weakly evolved root systems, fewer number of petals (up to 8), which are usually red to violet coloured, deep violet anthers and cylindrically elongate heads (clusters) of achenes. The second species group includes perennial plants with distinct to robust rhizomes, with larger flowers, having numerous yellow petals (more than 8), yellow anthers and usually rather globose clusters of achenes. The centre of evolution and the main part of the original distribution area of *Adonis* s. s. is situated in the Mediterranean region and in neighbouring areas. In contrast to that character of *Adonis* s. s., the representatives of the second genus are distributed in natural types of vegetation in mountains from the Pyrenees to the Himalaya and East Asia, some of them being members of the flora of continental Eurasian steppes. The question relates to the generic name for the group of perennial species including c. 25 species. The two names

under consideration – *Adonanthe* and *Chrysocyathus* – were published in the same year. According to the information given in the Index Nominum Genericorum (Farr et al. 1979a), the publication data of the two names are as follows: *Adonanthe* Spach Hist. Natur. Veget. Phanerogam. 7: 227, 4. May 1839; *Chrysocyathus* Falconer, Proceed. Linn. Soc. London 1: 17, 19. February 1839. The latter name has to be adopted therefore for the combined genus *Adonanthe* + *Chrysocyathus*. Chrtek & Slavíková (1978) proposed names for 6 species with that generic name – *Chrysocyathus brevistylus*, *C. cylleneus*, *C. distortus*, *C. falconeri*, *C. nepalensis* and *C. pyrenaicus*. The two taxa *Adonanthe* and *Chrysocyathus* are accepted here as sections of the genus *Chrysocyathus*; with regard to the priority, the name sect. *Consiligo* has to be used for *Adonanthe* at this level. Taking account of this classification the subgenus *Adonanthe* subgen. *Amudonis* Chrtek et Slavíková (1978: 24) can be accepted only as a subsection of the section *Consiligo*, but in this case it is necessary to use another epithet (see below).

***Chrysocyathus* sect. *Consiligo* subsect. *Vernales* (Poškurlat) Holub, comb. nova.** – Bas.: *Adonis* sect. *Consiligo* subsect. *Vernales* Poškurlat, Novosti Sist. Vysš. Rast. 14: 82, Leningrad 1977.

***Chrysocyathus amurensis* (Regel et Radde) Holub, comb. nova.** – Bas.: *Adonis amurensis* Regel et Radde, Bull. Soc. Natur. Moscou 34/2, no 3: 35, 1861.

***Chrysocyathus bobrovianus* (Simonovič) Holub, comb. nova.** – Bas.: *Adonis bobroviana* Simonovič, Novosti Sist. Vysš. Rast. 1968: 127, Leningrad 1968.

***Chrysocyathus davidii* (Franchet) Holub, comb. nova.** – Bas.: *Adonis davidii* Franchet, Nouv. Arch. Mus. Hist. Natur., Ser. 2, 8/1885: 188, Paris 1886.

***Chrysocyathus ×hybridus* (Simkovics) Holub, comb. nova.** – Bas.: *Adonis hybrida* Wolf ex Simkovics, Magyar Növényt. Lapok 2: 146, Kolozsvárt 1878, em. Simonkai Enum. Fl. Transsilv. Vascul. Crit., 42, Budapest (“1886”) 1887. [= *Chrysocyathus vernalis* (L.) Holub × *C. volgensis* (Steven in DC.) Holub].

***Chrysocyathus leiosepalus* (Butkov) Holub, comb. nova.** – Bas.: *Adonis leiosepala* Butkov, Bot. Mater. Gerb. Bot. Inst. Uzbek. Fil. Akad. Nauk SSSR 3: 21, Taškent 1941.

***Chrysocyathus mongolicus* (Simonovič) Holub, comb. nova.** – Bas.: *Adonis mongolica* Simonovič, Novosti Sist. Vysš. Rast. 1968: 125, Leningrad 1968.

***Chrysocyathus multiflorus* (Nishikawa et K. Ito) Holub, comb. nova.** – Bas.: *Adonis multiflora* T. Nishikawa et K. Ito, Journ. Japan. Bot. 64: 51, Tokyo 1989.

***Chrysocyathus pseudoamurensis* (Wang) Holub, comb. nova.** – Bas.: *Adonis pseudoamurensis* W. T. Wang, Flora Reipubl. Popul. Sinicae 28: 352, Beijing 1980.

***Chrysocyathus ramosus* (Franchet) Holub, comb. nova.** – Bas.: *Adonis ramosa* Franchet, Bull. Soc. Philom. Paris, ser. 8, 6: 91, 1894.

***Chrysocyathus sibiricus* (Ledeb.) Holub, comb. nova.** – Bas.: *Adonis sibirica* Patrín ex Ledebour, Index Horti Dorpat., Suppl. 2: 1, 1824.

Chrysocyathus sutchuensis (Franchet) Holub, comb. nova. – Bas.: *Adonis sutchuensis* Franchet, Bull. Soc. Philom. Paris, ser. 8, 6: 89, 1899.

Chrysocyathus tianshanicus (Adolf) Holub, comb. nova. – Bas.: *Adonis turkestanica* var. *tianshanica* Adolf, Trudy Priklad. Bot. Genet. Selekcii 23: 328, Moskva et Leningrad, 1930. – Syn.: *Adonis tianshanicus* (Adolf) Lipšic, Flora SSSR 7: 531, 1937.

Chrysocyathus turkestanicus (Koržin.) Holub, comb. nova. – Bas.: *Adonis appenina* var. *turkestanica* Koržinskij, Bull. Acad. Sci. St. Peterbourgh 9: 400, 1898. – Syn.: *Adonis turkestanica* (Koržin.) Adolf, Trudy Priklad. Bot. Genet. Selekcii 23: 327, Moskva et Leningrad 1930.

Chrysocyathus vernalis (L.) Holub, comb. nova. – Bas.: *Adonis vernalis* Linnaeus Spec. Plant., 547, Holmiae 1753.

Chrysocyathus villosus (Ledeb.) Holub, comb. nova. – Bas.: *Adonis villosa* Ledebour, Index Sem. Horti Dorpat., Suppl. 2: 1, 1824.

Chrysocyathus volgensis (Steven in DC.) Holub, comb. nova. – Bas.: *Adonis volgensis* Steven in De Candolle Reg. Veget. Syst. Natur. 1: 545, Parisiis 1817.

Comastoma urnigera (Aitken et Long) Holub, comb. nova. – Bas.: *Gentianella urnigera* E. Aitken et O. G. Long, Edinburgh Journ. Bot. 53: 82, 1996.

Crinitina linosyris subsp. *armoricana* (Rouy) Holub, comb. nova. – Bas.: *Aster linosyris* proles (“forme”) *armoricanus* Rouy Fl. France 8: 151, Asnières et Paris 1903. – Syn.: *Aster linosyris* subsp. *armoricanus* (Rouy) Kerguélen, Lejeunia 120: 54, 1987.

Note: When *Aster linosyris* (L.) Bernh. is separated into a new genus of its own, the correct name of that genus is *Crinitina* Soják, Zprávy Kraj. Vlastivěd. Muz. Olomouc 215: 1, 1982. This generic name was published in a relatively inaccessible periodical and is therefore generally omitted and unknown; it is not mentioned in Index Kewensis (where, in addition, other new combinations and names published by Soják in 1982 in that publication are missing, e. g. *Lamiastrum argentatum*, several combinations with *Balinotella* [= *Libanotis*] etc.).

Cynoxylon subgen. *Discocrania* (Harms in Engler et Prantl) Holub, comb. nova. – Bas.: *Cornus* sect. *Discocrania* Harms in Engler et Prantl, Natürl. Pflanzenfam. 3/8: 267, Leipzig 1898. – Syn.: *Cornus* subgen. *Discocrania* (Harms in Engler et Prantl) Wangerin in Engler, Pflanzenreich 4/229, 41: 84, 1910.

Dactylorhiza xbraunii nothosubsp. *lilacina* (Procházka) Holub, comb. nova. – Bas.: *Dactylorhiza xbraunii* nm. *lilacina* Procházka, Preslia 54: 291, Praha 1982. [= *Dactylorhiza comosa* (Scop.) P. D. Sell subsp. *turfosa* (Procházka) Holub × *D. longibracteata* (F. W. Schmidt) Holub subsp. *longibracteata*].

Dactylorhiza comosa subsp. *turfosa* (Procházka) Holub, comb. nova. – Bas.: *Dactylorhiza majalis* subsp. *turfosa* Procházka, Preslia 54: 289, Praha 1982.

Note: The species of *Dactylorhiza* frequently occurring in Central Europe, which in earlier times was designated as *Orchis latifolia* L. [according to its type, this name should apparently refer to *D. sambucina* (L.) Soó], or more recently given as *D. majalis* (Reichenb. 1828) Hunt et Summerhayes 1965, has been subjected to further changes of its name not long ago. Recently the name *D. fistulosa* (Moench 1794) Baumann et Kunkel 1983 was proposed for it, which belongs directly to the normal (Central European) phase of the species. However, a still earlier species name does exist in this taxonomic complex – *Orchis comosa* Scop. 1772, on which the correct name *D. comosa* (Scop.) P. D. Sell in P. Sell & G. Murrell Fl. Brit. Isles 5: 364, 1996, is based. Scopoli's name certainly belongs to the discussed taxonomic group and refers to a mountain taxon (being described from the south-eastern Alps) occurring in the Alps. A new name should be proposed therefore for the subspecies described by F. Procházka from the Šumava Mts (see above). The correct name for the taxon commonly occurring in Central Europe is *D. comosa* subsp. *majalis* (Reichenb.) P. D. Sell 1996, l.c.

***Drymochloa asthenica* (Hooker f.) Holub, comb. nova.** – Bas.: *Festuca asthenica* Hooker fil. Fl. Brit. India 7: 354, London 1897.

***Drymochloa grandis* (Cosson et Durieu) Holub, status novus et comb. nova.** – Bas.: *Festuca drymeja* var. *grandis* Cosson et Durieu Expl. Scient. Algerie, 297, Paris 1848 [n.v.].

***Drymochloa lasto* (Boiss.) Holub, comb. nova.** – Bas.: *Festuca lasto* Boissier Notice L'Abies pinsapo, 12, Genève 1838.

***Drymochloa modesta* (Steudel) Holub, comb. nova.** – Bas.: *Festuca modesta* Nees ex Steudel Syn. Plant. Glumac. 1: 316, Stuttgartiae 1854.

***Evax petro-ianii* (Rita et Dittrich in Kit Tan) Holub, comb. nova.** – Bas.: *Filago petro-ianii* J. Rita et M. Dittrich in Kit Tan (ed.), The Davis & Hedge Festschrift, p. 1, Edinburgh 1989. [Typus – holotypus: G no 320217 Herb. Generale 7612/1 – vidi!].

***Fallopia denticulata* (Huang) Holub, comb. nova.** – Bas.: *Polygonum denticulatum* Huang, Acta Bot. Yunnan. 6: 288, Kunming 1984.

× ***Filfia* Holub, nomen nothogenericum novum.** – *Filago* L. × *Logfia* Cass.

× ***Filfia mixta* (Holuby) Holub, comb. nova.** – Bas.: *Filago* × *mixta* Holuby, Oesterr. Bot. Zeitschr. 21: 262, Wien 1871. [= *Filago vulgaris* Lam. × *Logfia arvensis* (L.) Holub].

***Galeobdolon endtmannii* (Loos) Holub, comb. nova.** – Bas.: *Lamium endtmannii* G. H. Loos, Flor. Rundbr. 31: 43–44, Bochum 1997.

Note: Certain difficulties in taxonomy and identification existing within *Galeobdolon luteum* agg. may be partly eliminated by the description of a new species – *Lamium endtmannii* by Loos (1997). This species is morphologically intermediate between *G. luteum* Hudson and *G. montanum* (Pers.) Reichenb., and is often confused with *G. montanum* (tetraploid) but it is diploid. The genus *Galeobdolon* (cf. Holub 1970b) is accepted by the present author here only for the group *G. luteum* agg. Priority is given to the name *Galeobdolon* Adanson; Hudson over *Lamiastrum* ["Fabricius"] Polatschek (Holub l.c.).

***Gentianella praecox* (A. Kerner et J. Kerner ap. A. Kerner) E. Mayer, Biol. Vestnik 16: 26, Ljubljana 1968.**

Note: The present author is sometimes cited as the author of this combination (cf. Hempel 1981, Mirek et al. 1995: 93). However, this combination has not been proposed earlier by me although I have addressed these problems in various lectures and also in *Flóra Slovenska* (Holub et Bertová 1985b). No valid publication of this combination, nor its indirectly valid origin (i. e. by the acceptance of the name *Gentianella praecox* and by a simultaneous quotation of Kerner's basionym in its synonymy) was known to me at that time. On the kind advice of J. Kirschner such a combination was found by him in *Flora Balgarija* 8: 415, 1982. (Kožucharov et Petrova 1982). An earlier and valid publication place of that combination was found by me in *Flora SR Srbije* 5: 428, 1973, in the text compiled by R. Jovanović-Dunjič. However, the earliest author who published that combination was E. Mayer (1968) in *Biol. Vestnik* 16: 26, Ljubljana 1968. All the above mentioned authors – Kožucharov, Jovanović-Dunjič and E. Mayer – quote to the combination *Gentianella praecox* Dostál, Klíč Květeny ČSR, ed. 2, 496, 1958, as its author. Dostál (1958) did not validly publish any new combination in his book for the determination of the Czechoslovak flora, as he did not cite basionyms, which were necessary for the valid publication of new combinations at that time (i. e. after I. L. 1953). All three above mentioned authors accepted the name *Gentianella praecox* for another species than that described by Kerner's brothers. *Gentianella praecox*, described originally from the Waldviertel region in Lower Austria, was, shortly after its description, erroneously identified with Carpathian – Balkan plants belonging to the group of *G. lutescens* (Velen.) Holub; but it really belongs to the group of Hercynian plants (most probably or almost certainly being identical with the taxonomically little known and somewhat uncertain *G. gabretae* Skalický; cf. etiam Holub in Holub & Bertová 1985b: 131–132).

***Gentianella praecox* subsp. *bohémica* (Skalický) Holub, status novus.** – Bas.: *Gentianella bohémica* Skalický, *Preslia* 41: 144, Praha 1969.

***Gentianella pseudazurea* (Grubov) Holub, comb. nova.** – Bas.: *Gentiana pseudazurea* Grubov, *Journ. Japan. Bot.* 69: 18, Tokyo 1994.

***Gentianella tischkovii* (Grubov) Holub, comb. nova.** – Bas.: *Gentiana tischkovii* Grubov, *Journ. Japan. Bot.* 69: 21, Tokyo 1994.

***Helictotrichon austro-ibericum* Holub, nomen novum pro statu novo.** – Nomen substitutum: *Helictotrichon filifolium* subsp. *arundanum* Romero Zarco, *Anales Jardín Bot. Madrid* 41: 118, 1984.

Note: The subspecific epitheton “*arundanum*” used by Romero Zarco for this taxon is not transferred here to the species level in *Helictotrichon*, as a combination *Avenula arundana* is proposed in this contribution, which, in a short time could be transferred to *Helictotrichon* by advocates of a broader concept of that genus.

***Helictotrichon romeroi-zarcoi* Holub, nomen novum pro statu novo.** – Nomen substitutum: *Helictotrichon sedenense* subsp. *gervaisii* Romero Zarco, *Anales Jardín Bot. Madrid* 41: 112, 1984.

Note: The subspecific epitheton “*gervaisii*” used by Romero Zarco for this taxon cannot be transferred to the species level in *Helictotrichon*, as a combination *Helictotrichon gervaisii* (Holub) Röser 1989 exists by now, belonging to the group (better genus) *Avenula* and based on *Avenula gervaisii* Holub 1977a.

***Helictotrichon rubrotinctum* (Pau) Holub, comb. nova.** – Bas.: *Avena rubrotincta* Pau *Carta un botanico* 1: 8, 1904 (cit. sec. Romero Zarco, *Anales Jard. Bot. Madrid* 41: 117, 1984).

***Hylotelephium pakistanicum* (Sarwar) Holub, comb. nova.** – *Sedum pakistanicum* Sarwar, *Candollea* 50: 273, Genève 1995.

***Jovibarba globifera* subsp. *glabrescens* (Sabr.) Holub, comb. nova.** – Bas.: *Sempervivum hirtum* f. *glabrescens* Sabransky, Oesterr. Bot. Zeitschr. 32: 378, Wien 1882. – Syn.: *Sempervivum hirtum* subsp. *glabrescens* (Sabr.) Soó, Acta Geobot. Hungar. 3: 54, 1940.

Note: The final solution to the nomenclature of the name *Sempervivum globiferum* L. 1753 in the sense of *Sempervivum (Jovibarba) soboliferum* Sims, as well as the transfer of taxa of this taxonomic group from species level to subspecies of *Sempervivum (Jovibarba) globiferum* – i. e. in our case especially regarding the inclusion of *S. hirtum* L. (Parnell & Favarger 1990), results in changes in the names of the pertinent taxa. Here, especially the change is discussed, relating to the taxon *Jovibarba hirta* subsp. *glabrescens* (Sabr.) Holub (the existence of which has contributed to the mentioned inclusion). When studying these problems, Letz (1997) most recently came to the (preliminary) conclusion that this (relatively rare and geographically limited) taxon “should be provisionally classified only as *J. globifera* without indication of subspecific name at the present time. No taxonomic units are recognized at subspecific level”. It is hardly possible to agree with this opinion; in the Western Carpathians and Slovakia this taxonomic group includes further taxa described from there (*Sempervivum preissianum* Domin, *S. tatrense* Domin – these two taxa seem to be taxonomically identical, at least at the rank of subspecies) and the mentioned transitional type between *S. hirtum* and *S. soboliferum* (= *S. globiferum*). The latter, as a linking morphotype, deserves to be classified at the same level as the taxa which it connects. For this reason a new combination for this taxon is proposed here under the newly adopted name *Jovibarba globifera* (L.) J. Parnell 1990 (Parnell & Favarger 1990). For the dominant morphotype of this taxonomic group occurring in the West Carpathians (composed of *Sempervivum preissianum* and *S. tatrense*) a subspecies combination is proposed below. The epithet “*preissianum*” is used here according to the fact that the taxon *S. tatrense* was included by S. Pawłowska in 1955 into *S. preissianum* as follows from her combination *Sempervivum soboliferum* Sims. subsp. *preissianum* (Domin) S. Pawl. var. *tatrense* (Domin) S. Pawl., Flora Polska 7: 48, 1955. The epithet “*preissianum*” has therefore priority over “*tatrense*”.

***Jovibarba globifera* subsp. *preissiana* (Domin) Holub, comb. nova.** – Bas.: *Sempervivum preissianum* Domin, Rozpr. České Akad. Věd, Cl. 2, Mat. Natur., 42/29: 19, Praha 1933. – Syn.: *Sempervivum hirtum* subsp. *preissianum* (Domin) Dostál, Květena ČSR, 537, 1948.

***Klasea donetzica* (Dubovik) Holub, comb. nova.** – Bas.: *Serratula donetzica* Dubovik, Fl. URSR 12: 560 et 17, tab. 1, Kijiv 1965.

Note: The separation of the genus *Klasea* Cass. from *Serratula* L. was in modern taxonomy of *Centaureinae* first accepted by Kitagawa (Journ. Japan. Bot. 21/1947: 139–140, 25/1950: 40), later by Á. Löve & D. Löve (Bot. Notiser 1961: 43), and was substantiated by Holub (1977b: 298). Recently the genus was accepted by Talavera (1987) for species of southern Spain. At present its separate position is supported by Wagenitz & Hellwig (1994), too, who also emphasized a close relationship between *Klasea* Cass. 1825 and *Schumeria* Iljin 1960; the relation between these two genera requires further study.

***Klasea insularis* (Iljin) Holub, comb. nova.** – Bas.: *Serratula insularis* Iljin, Izvest. Glav. Bot. Sada SSSR 27: 86, Leningrad 1928.

***Klasea lusitanica* (Canto) Holub, status novus et comb. nova.** – Bas.: *Serratula baetica* subsp. *lusitanica* Canto, Lazaroa 3: 385, Madrid 1981.

***Klasea pallida* (DC.) Holub, comb. nova.** – Bas.: *Serratula pallida* De Candolle Prodr. Syst. Natur. Regni Vegetab. 6: 670, Parisiis “1837”, 1838.

***Klasea tanaitica* (P. Smirnov) Holub, comb. nova.** – Bas.: *Serratula tanaitica* P. Smirnov, Bjull. Moskov. Obšč. Ispyt. Prir., ser. biol., 49/1: 92, Moskva 1940.

***Kohlrauschia dubia* (Rafin.) Holub, comb. nova.** – Bas.: *Dianthus dubius* Rafinesque Caratt. Nuov. Gen., 75, Palermo 1810. [Cf. Lopéz González et al. M. Romo, Anales Jardin Bot. Madrid 45: 363, 1988]. [= *Petrorrhagia velutina* (Guss. 1825) P. W. Ball et Heywood 1964].

***Logfia arizonica* (A. Gray) Holub, comb. nova.** – Bas.: *Filago arizonica* Asa Gray, Proceed. Amer. Acad. 8: 652, Boston et Cambridge 1873.

***Logfia californica* (Nutt.) Holub, comb. nova.** – Bas.: *Filago californica* Nuttall, Transact. Amer. Philos. Soc., ser. nova, 7: 405, Philadelphia 1841.

***Logfia depressa* (A. Gray) Holub, comb. nova.** – Bas.: *Filago depressa* Asa Gray, Proceed. Amer. Acad. 19: 3, Boston 1884.

Note: Nomenclatural combinations with the generic name *Oglifa* were proposed by Chrtek & Holub (1963) for the above three North American species of this taxonomic group. However, the name *Oglifa* was first published as the name of a subgenus – *Filago* L. subgen. *Oglifa* Cass., Bull. Soc. Philom. Paris 1819: 143, Sept. 1819. In the same publication (on the same page) and with the same publication date, Cassini published the name of a (for him taxonomically different) genus *Logfia* Cass., l.c., and used this at the same time both as a name of a genus and as a name of a subgenus (of the genus *Filago* L.). With regard to this alternative taxonomic solution used by Cassini, the correct name of the genus originated by combining the species contents of Cassini's groups *Oglifa* and *Logfia* into one genus – *Logfia* Cass. 1819. This taxonomic concept was accepted by the present author and published both in the Flora of Turkey and in Flora Europaea (Holub 1976a, c).

***Noccaea arctica* (A. E. Porsild) Holub, comb. nova.** – Bas.: *Thlaspi arcticum* A. E. Porsild, Sargentia 4: 40, Jamaica Plain 1943.

Note: F. K. Meyer (1973) undertook a generic reform (or rather a radical revolution) of the earlier standing concept of the genus *Thlaspi*. It was shown, that – especially on the basis of the anatomical structure of the seed testa – the small group *Thlaspi* s. s. with the type species *T. arvense* L., differs substantially from other groups of *Thlaspi* s. l., including many species. In Central Europe (s. l.) a few representatives of *Microthlaspi* F. K. Meyer and numerous species of *Noccaea* Moench occur. F. K. Meyer's classification has not been followed very much by other authors. The present author (Holub 1983: 205), accepted the genus *Noccaea* in circumscription proposed by F. K. Meyer. Most recently Kerguelen & Čerepanov also supported this classification by some new proposals of nomenclatural combinations with *Noccaea*. Justification of the generic exclusion of *Thlaspi* s. s. from the remainder of that genus (*Thlaspi* s. l.) and by this the acceptance of the genus *Noccaea*, are indicated by the most recent studies based on modern methods of molecular research (Mummenhoff et al. 1997; chloroplast DNA restriction-site variation – Mummenhoff & Koch 1994, Zunk et al. 1996; isoelectric focusing analysis of Rubisco – Mummenhoff & Zunk 1991). Nomenclatural combinations for taxa of the genus *Noccaea* were proposed especially for European and Oriental species of that genus. Here also some new nomenclatural combinations for taxa from the American continent are proposed. According to my knowledge, the nomenclatural combination for the taxon (subspecies) occurring in western Europe on calaminiferous bedrocks (i. e. *Thlaspi alpestre* subsp. *calaminare*) in *Noccaea* is missing and is therefore proposed here (see below).

***Noccaea caerulea* subsp. *calaminaris* (Lej.) Holub, comb. nova.** – Bas.: *Thlaspi alpestre* var. *calaminare* Lejeune Rev. Fl. Env. Spa, 129, Liège 1824. – Syn.: *Thlaspi alpestre* subsp. *calaminare* (Lej.) O. Schwarz, Mitteil. Thüring. Bot. Ges. 1: 102, 1949.

***Noccaea coloradensis* (Rydb.) Holub, comb. nova.** – Bas.: *Thlaspi coloradense* Rydberg, Bull. Torrey Bot. Club 28: 28, New York 1901.

***Noccaea cuneifolia* (Pant.) Holub, comb. nova.** – Bas.: *Thlaspi cuneifolium* Grisebach ex Pantocsek, Österr. Bot. Zeitschr. 23: 268, Wien 1873.

***Noccaea glauca* (A. Nelson) Holub, comb. nova.** – Bas.: *Thlaspi alpestre glaucum* A. Nelson, First Report Fl. Wyoming, 84, 1896 (n.v.). – Syn.: *Thlaspi glaucum* (A. Nelson) A. Nelson, Bull. Torrey Bot. Club 25: 275, New York 1898.

***Noccaea fendleri* (A. Gray) Holub, comb. nova.** – Bas.: *Thlaspi fendleri* Asa Gray, Smithsonian Contrib. Knowl. 5(6): 14, [= *Plantae Wrightianae* 2: 14], Washington 1853.

***Noccaea magellanica* (Pers.) Holub, comb. nova.** – Bas.: *Thlaspi magellanicum* Persoon Syn. Plant. 2: 189, Parisiis Lutetiorum et Tubingae 1807.

***Noccaea mexicana* (Standley) Holub, comb. nova.** – Bas.: *Thlaspi mexicanum* Standley, Publ. Field Mus. Natur. Hist., bot. ser., 22: 76, Chicago 1940.

***Noccaea oligosperma* (Merino) Holub, comb. nova.** – Bas.: *Thlaspi sylvestre* var. *oligospermum* Merino Fl. Galicia 3: 510, Santiago 1909. – Syn.: *Thlaspi oligospermum* (Merino) Greuter et Burdet, Willdenowia 13: 96, 1983.

***Noccaea parviflora* (A. Nelson) Holub, comb. nova.** – Bas.: *Thlaspi parviflorum* A. Nelson, Bull. Torrey Bot. Club 27: 265, Lancaster 1900.

***Noccaea pawlowskii* (Dvořáková) Holub, comb. nova.** – Bas.: *Thlaspi pawlowskii* Dvořáková, Preslia 45: 315, Praha 1973.

***Noccaea pindica* (Hausskn.) Holub, comb. nova.** – Bas.: *Thlaspi pindicum* Haussknecht, Mitteil. Thüring. Bot. Ver., ser. nova, 3–4: 115, Weimar 1893.

***Noccaea suffruticosa* (Loscós et Pardo) Holub, comb. nova.** – Bas.: *Thlaspi suffruticosum* Asso ex Loscós et Pardo, Ser. Inconf. Pl. Aragon., ed. 2, 38, Madrid 1867.

***Omalotheca hoppeana* subsp. *magellensis* (Fiori et Paol.) Holub, comb. nova.** – Bas.: *Gnaphalium supinum* var. *hoppeanum* f. *magellensis* Fiori et Paol. Fl. Anal. Ital. 3: 279, Padova 1904. – Syn.: *Gnaphalium hoppeanum* subsp. *magellense* (Fiori et Paol.) Strid in Strid et Kit Tan Mount. Fl. Greece 2: 411, 1991.

***Omalotheca nanchuensis* (Ling et Tseng) Holub, comb. nova.** – Bas.: *Gnaphalium nanchuense* Ling et Tseng, Acta Phytotax. Sinica 16/3: 85, [Beijing] 1978.

***Orites* sect. *Albopetalae* (Panov) Rabeler ex Holub, comb. nova.** – Bas.: *Silene* sect. *Albopetalae* Panov, Dokl. Balgar. Akad. Nauk 27: 1571, Sofija 1974. [Combinatio eadem a Rabeler proposita – Contrib. Univ. Michigan Herb. 19: 162, 1993 – est nomen invalidum.]

Note: The genus *Orites* Adanson is used mostly by Russian and Ukrainian taxonomists (e. g. Klovov, Fl. Ukraj. RSR 4, 1952; more recently Devjatov 1987). The present author accepted it in 1970 (Holub 1970a). An interesting taxon from sands of the lower stream of the Morava river (from South Moravia and West Slovakia) and the

Danube (South Slovakia and Hungary), designated by Czech authors usually (and erroneously) as "*Silene pseudotites*", was named in the genus *Otites* as *O. cuneifolia* subsp. *arenaria* (Podp.) Holub 1986. In the same year this taxon was published by Wrigley (1986) as *Silene otites* subsp. *hungarica* Wrigley. The name proposed by Wrigley was published on 25. April 1986, that by Holub on 20. October 1986. Podpěra originally (on herbarium labels) classified the taxon as a subspecies of *S. otites*. However, when validly publishing it, he accepted it as a variety (as a consequence of the transfer of the taxon from *Silene otites* to *S. pseudotites*). In the genus *Otites* it is therefore also necessary to use the name by Wrigley as the basionym of the new combination proposed here (see below).

***Otites baldaccii* (Rohl.) Holub, comb. nova.** – Bas.: *Silene otites* var. *baldaccii* Rohlena, Magyar Bot. Lapok 3: 322, Budapest 1904 [XII. 1904]; Sitzungsber. Königl. Böhm. Ges. Wiss., cl. math.–natur., 1904/38: 29, Prag 1905 [? XII. 1904]. – Syn.: *Silene baldaccii* (Rohl.) A. W. Hill, Index Kewensis, Suppl. 6: 194, 1926.

***Otites cuneifolia* subsp. *hungarica* (Wrigley) Holub, comb. nova.** – Bas.: *Silene otites* subsp. *hungarica* Wrigley, Annales Bot. Fenn. 23: 74, Helsinki 1986.

***Otites staminea* (Bertol.) Holub, comb. nova.** – Bas.: *Silene staminea* Bertoloni Fl. Ital. 4: 585, Bologne ("1839") 1841.

***Pleconax grisebachii* (Davidov) Holub, comb. nova.** – Bas.: *Silene subconica* var. *grisebachii* Davidov, Trudy Balgar. Prirod. Družstva 8: 53, Sofija 1915. – Syn.: *Silene grisebachii* (Davidov) Pirner et Greuter, Willdenowia 25: 137, 1995.

***Preonanthus scherfelii* f. *lutescens* (Šourek) Holub, status novus et comb. nova.** – Bas.: *Pulsatilla alba* var. *lutescens* Šourek, Preslia 40: 77, Praha 1968.

***Pseudolysimachion klokovii* (Cvelev) Holub, status novus et comb. nova.** – Bas.: *Veronica spicata* subsp. *klokovii* Cvelev, Bjull. Moskovsk. Obšč. Ispyt. Prir., ser. biol., 86/6: 85, Moskva 1981.

***Pseudolysimachion longifolium* subsp. *pseudolongifolium* (Printz) Holub, comb. nova et status novus.** – Bas.: *Veronica pseudolongifolia* Printz Veget. Siber.- Mongol. Frontiers, 380, Trondhejm 1921.

***Pseudolysimachion maeoticum* (Klokov) Holub, comb. nova.** – Bas.: *Veronica maeotica* Klokov, Novosti Sist. Vysš. Nizš. Rast. 1975: 102, Kijev 1976.

***Pseudolysimachion myiabei* (Nakai et Honda) Holub, comb. nova.** – Bas.: *Veronica myiabei* Nakai et Honda, Journ. Jap. Bot. 11: 355, Tokyo 1935.

***Pseudolysimachion taigischense* (Stepanov) Holub, comb. nova.** – Bas.: *Veronica taigischensis* Stepanov, Bot. Žurn. 82/1997/9: 93–94, Sankt-Peterburg 1997.

***Psyllium libycum* (Bég. et Vacc.) Holub, comb. nova.** – Bas.: *Plantago libyca* Béguinot et Vaccari, Annali Bot. 12: 119, Roma 1913.

×*Reyllophia* Holub, nomen nothogenericum novum. – *Fallopia* Adanson × *Reynoutria* Houtt. [Cf. Bailey & Stace, Plant Syst. Evol. 180: 29, Wien etc. 1992].

Rhodax distachyos (Roth) Holub, comb. nova. – Bas.: *Cistus distachyos* Roth Catal. Bot. 1: 62, Lipsiae 1797.

Rhodax distachyos subsp. *rubellus* (Fiori) Holub, status novus et comb. nova. – Bas.: *Helianthemum canum* var. *rubellum* [K. Presl] Fiori Nuova Fl. Anal. Italia 1: 530, 1924. – Syn. ["praebasionymum"]: *Helianthemum rubellum* K. Presl in J. Presl et K. Presl Delic. Prag., 25, 1822, nomen illegit., non Moench 1802.

Rhodax distachyos subsp. *stipulatus* (Willk.) Holub, status novus et comb. nova. – Bas.: *Helianthemum rubellum* Presl [var.] α *nummulariifolium* [subvar.] β. *macrophyllum* [f.] γ *stipulatum* Willkomm Icon. Descript. Plant. Hisp. 2: 141, tab. 155, fig. B, Lipsiae ["1856"] 1862.

Rhodax hieronymii (Sennen) Holub, comb. nova. – Bas.: *Helianthemum hieronymii* Sennen Pl. Espagne 1928, no 6717, Zaragoza 1929, in schedis.

Rhodax raynaudii (Ortega, Romero et Morales) Holub, comb. nova. – Bas.: *Helianthemum raynaudii* A. Ortega, A. T. Romero et C. Morales, Candollea 44: 233, Genève 1989.

Rhodax viscaria (Boiss. et Reuter) Holub, comb. nova. – Bas.: *Helianthemum viscarium* Boissier et Reuter Pugillus Plant. Nov. Afric. Bor. Hisp. Austr. 14, Genevae 1852.

×*Ribularia* Holub, nomen nothogenericum novum. – *Grossularia* Miller × *Ribes* L.

×*Ribularia paui* (Blanca) Holub, comb. nova. – Bas.: *Ribes paui* Blanca, Anales Jardin Bot. Madrid 51: 316, 1994. [= *Grossularia uva-crispa* (L.) Miller × *Ribes alpinum* L.].

Rostraria amblyantha (Boiss.) Holub, status novus et comb. nova. – Bas.: *Koeleria phleoides* var. *amblyantha* [E. Desvaux pro spec. ex] Boissier Diagn. Plant. Nov. Orient., ser. 2, 4: 134, Lipsiae et Parisiis 1859.

Rubus nothosubgen. × *Anobatus* Holub, nomen nothosubgenericum novum. – *Rubus* subgen. *Anoplobatus* (Focke) Focke × subgen. *Idaeobatus* Focke. [Nomen incorrecte compositum: *Rubus* nothosubgen. × *Anoplideus* Holub, Preslia 64: 129, 1992.]

Rubus nothosubgen. × *Chabatus* Holub, nomen nothosubgenericum novum. – *Rubus* subgen. *Idaeobatus* Focke × subgen. *Chamaerubus* O. Kuntze. [Nomen incorrecte compositum: *Rubus* nothosubgen. × *Chamaeidaeus* Holub, Preslia 64: 129, 1992.]

Note: Two above given proposals of new nothosubgeneric names substitute two incorrectly composed names of hybrid subgenera in *Rubus* (Holub 1992: 129). According to the rules of the Code ICBN (e. g. ICBN 1994), these names – just as for the names of hybrid genera – must be formed by combining the first part of the name of one parental subgenus with the second part of the name of the second parental subgenus. In the above given cases

of two incorrectly composed names this rule was not adhered to and two first parts of names of subgenera were erroneously combined, as the names resulting in this way seemed to the proposer to be more appropriate.

***Sassia* sect. *Ionoxalis* (Small) Holub, comb. nova.** – Bas.: *Ionoxalis* Small, North Amer. Fl. 25/1: 28, New York 1907. – Syn.: *Oxalis* sect. *Ionoxalis* (Small) R. Knuth, Bot. Jahrb. Syst. 50, Vol. Suppl. (Engler Fest-Band), 224, 1914.

Note: *Oxalis* L. is a very heteromorphic genus, especially with regard to the various “life forms” (growth-forms) which present very distinct and characteristic geographic patterns, many being confined to certain geographic regions. The great variety of species of this generally broadly delimited genus is divided into a whole series of groups, some of which may be classified as separate genera. A distinct group is represented by bulbous plants with leaves only in basal rosettes and occurring (as native plants) mostly in South and Central America and reaching southern areas of North America. They belong to the genus *Sassia* Molina (Holub & Holubičková 1980). It is a genus rich in species (c. 50–120 species). Only two new nomenclatural combinations are proposed here; a further two for species occurring as alien plants in the Czech Republic were recently proposed (Holub 1997a). Additional ones will be published elsewhere later.

***Sassia tetraphylla* (Cav.) Holub, comb. nova.** – Bas.: *Oxalis tetraphylla* Cavanilles Icon. Descr. Plant. 3: 19, tab. 237, Matriti [“1794”] 1795.

***Sassia violacea* (L.) Holub, comb. nova.** – Bas.: *Oxalis violacea* Linnaeus Spec. Plant., 434, Holmiae 1753.

***Scariola longidentata* (Moris) Holub, comb. nova.** – Bas.: *Lactuca longidentata* Moris [Append. Elenchi Stirp. Sard. (3), 1828, n.v.] in DC. Prodr. Syst. Natur. Regni Vegetab. 7/1: 139, Parisiis 1838.

***Sceptridium* subgen. *Hiemobotrychium* (W. H. Wagner) Holub, status novus et comb. nova.** – Bas.: *Botrychium* sect. *Hiemobotrychium* W. H. Wagner, Novon 2: 267, St. Louis 1992. [= *Holubiella* Škoda 1997].

Note: *Sceptridium* Lyons represents within the *Botrychiaceae* a very characteristic and distinctly circumscribed group, which is recognized as a genus especially by East Asian (mostly Japanese) pteridologists. Most recently Škoda (1997: 345) based a new monotypical genus on *Botrychium lunarioides* Michaux, *Holubiella*. Still in earlier stages of the manuscript of this contribution I classified this taxonomic group as a subgenus of the genus *Sceptridium* and this classification is also retained here at present.

***Sceptridium lunarioides* (Michaux) Holub, comb. nova.** – Bas.: *Botrypus lunarioides* Michaux Fl. Bor.- Amer. 2: 274, Parisiis et Argentorati 1803.

***Sceptridium oneidense* (Gilbert) Holub, comb. nova.** – Bas.: *Botrychium ternatum* var. *oneidense* Gilbert, Fern Bull. 9: 27, Binghamton 1901. – Syn.: *Botrychium oneidense* (Gilbert) House, Amer. Midl. Naturalist 7: 126, 1905.

×*Schedolium* Holub, nomen nothogenericum novum. – *Lolium* L. × *Schedonorus* Pal. Beauv. (em.).

Note: A series of hybrids between representatives of the genera *Lolium* and *Schedonorus* exists; a new nothogeneric name is proposed here for them – ×*Schedolium*. Sulinowski (1966) published a series of such hybrids from his genetic experiments; an extensive list of cultivated hybrids may be found in Zwierzykowski (1996). However, no binomial names for them are given in these publications. The most often occurring hybrid is *Lolium perenne* × *Schedonorus pratensis*; doubts were cast upon the former use of the epithet “*liolium*” for this

hybrid; now, however, this epithet is normally accepted for this parental combination. Further hybrids are very rare in the field and they are usually known only from cultivation and genetic experiments. The binomial for the combination *Festuca pratensis* × *Lolium multiflorum* [= ×*Festulolium braunii* (K. Richter) A. Camus] is not fully certain; the name for the combination *Lolium multiflorum* × *Schedonorus* “*arundinaceus*” (= ×*Festulolium kraussii* Jirásek) has not been validly published and the binomial for this parental combination is missing.

×*Schedolium brinkmannii* (A. Br.) Holub, **comb. nova.** – Bas.: *Festuca* × *brinkmannii* A. Braun, Index Sem. Horti Berolin. 1861, Appendix, p. 11, 1862. [= *Lolium perenne* L. × *Schedonorus giganteus* (L.) Holub].

×*Schedolium holmbergii* (Dörfler) Holub, **comb. nova.** – Bas.: *Festuca* × *holmbergii* Dörfler Herb. Norm. no 5379, Vindobonae 1911. [= *Lolium perenne* L. × *Schedonorus phoenix* (Scop.) Holub].

×*Schedolium loliaceum* (Hudson) Holub, **comb. nova.** – Bas.: *Festuca loliacea* Hudson Fl. Angl., ed. 1, 38, Londini 1762. [= *Lolium perenne* L. × *Schedonorus pratensis* (Hudson) Pal. Beauv.].

Schedonorus subgen. *Drymonaetes* (Kreč. et Bobrov) Holub, **comb. nova.** – Bas.: *Festuca* subgen. *Drymonaetes* Krečetović et Bobrov, Flora SSSR 2: 533, Moskva et Leningrad 1934.

Note: The genus *Festuca* L. in its generally accepted circumscription is very heterogeneous from an evolutionary point of view. Several very different groups are included which should be excluded from this assemblage. The present author (Holub 1983) segregated the genus *Drymochloa*, and now proposes further nomenclatural combinations for several species of that genus in the present contribution. *Leucopoa* Griseb. in Ledeb. should also be separated as an independent genus; some new combinations for its species are in preparation. Since 1984 I have been preparing a separation (or recognition) of an amended circumscription of the genus *Schedonorus* Pal. Beauv. (type: *Festuca elatior* L. = *F. arundinacea* Schreber). Its close relationship to *Lolium* L., especially from the genetic point of view (several hybrids between representatives of these two genera exist) and many differences from *Festuca* L. (type: *Festuca ovina* L.) demonstrate the justification of a separate classification for *Schedonorus*. The genus in a very restricted circumscription (in comparison with the original circumscription by Palisot de Beauvois) includes only a few species of the group *Festuca pratensis* agg. and the somewhat isolated species *F. gigantea* (L.) Vill., the latter in a proper monotypic subgenus (see above). The separate position of *Schedonorus* in *Festuca* is evident; Darbyshire (1993) proposed the realignment of *Schedonorus* with *Lolium* (as its subgenus). However, the direct combining of these two groups does not seem to form any sort of a homogeneous taxon. The basic differences between the two groups are in the structure of the inflorescence (paniculate vs. spikeate; spikelets with two glumes vs. spikelets with only one glume) and in karyological features. Also, the results of molecular methods (Aiken et al. 1997a, b) do not support the transfer of this taxon to *Lolium*. In the opinion of the present author, a more useful classificatory approach is to accept the two groups as closely related but separate genera – *Lolium* L. and *Schedonorus* Pal. Beauv. (em.). Hybrids between them may be classified as members of a nothogenus ×*Schedolium* Holub (see above).

It is necessary to give some further notes referring to the taxa of this genus. The name of the type species of the genus *Schedonorus* Pal. Beauv. 1812 – *Festuca elatior* L. 1753 (taxonomically corresponding to *F. arundinacea* Schreber 1771) was proposed by Reveal et al. (1991) as a “nomen specificum rejiciendum”. This proposal was accepted and that name is included in the Code ICBN 1994 in its Appendix IV – “Nomina utique rejicienda”. Therefore the epithet of this name cannot be used in *Schedonorus* as a part of any correct name. In future, the name *Festuca arundinacea* Schreber 1771 may be used in the genus *Festuca*, unless it would be established that the name *Poa phoenix* Scop. 1771, published in the same year, has priority. A more difficult situation arises with the name of this species in the genus *Schedonorus*, in which *F. arundinacea* would be included if it is excluded from *Festuca*. Here the combination *Schedonorus* (ut *Schenodorus*) *arundinaceus* – Roemer & Schultes Syst. Veget. 2: 700, 1817, exists, viz. for the species *Scolochloa festucacea* (Willd.) Link [= *Graphophorum arundinaceum* (Fries) Aschers.]. Roemer & Schultes (l. c.) place their combinations (and the whole genus) under the generic name *Schenodorus*, but they included there as the first species the name which was published under the

generic name *Schedonorus* by Palisot de Beauvois, the author of that generic name. It is possible to take the names proposed by Roemer & Schultes without change of authorship as belonging to the genus described by Palisot de Beauvois in 1812. This opinion is accepted also in the Index Nominum Genericorum, vol. 3 (Farr et al. 1979b), where the American graminologist J. R. Swallen accepts the name *Schedonorus* Pal. Beauv. (p. 1558) as a correct name and the name *Schenodorus* Roemer & Schultes 1817 (p. 1577; in another orthographic variant "*Schoenodorus*", not used by these authors !) only as an orthographic variant of the name *Schedonorus* Pal. Beauv. 1812. This corresponds to the rules of the Code ICBN 1994, Art. 61.4: "The orthographic variants of a name are to be corrected to the validly published form of that name". The variant *Schoenodorus* is used e. g. by Rouy (1913), but only in synonymy. In comparison with examples of orthographic changes given in the Code ICBN (various editions), this change is rather more substantial and it would be useful to include it in the Code as a suitable example of a more extensive orthographic change. In the above case, the name *Schenodorus arundinaceus* of Roemer & Schultes 1817, based on another type of a non-related taxon, renders the transfer of *Festuca arundinacea* Schreber to *Schedonorus* (as this was done by Dumortier in 1823); this makes Dumortier's combination illegitimate. For the name of this taxon it is necessary to use another legitimate species name for it, i. e. *Poa phoenix* Scop. (see below). This name refers with certainty to the species in question, not to *Graphephorum arundinaceum* as it is given in the Index kewensis. Among the species of *Schedonorus* hybrids exist, both among closely allied species from *S. pratensis* agg. and also between them and the relatively more distantly related species *Schedonorus giganteus* from the second (monotypic) subgenus of this genus.

***Schedonorus xaschersonianus* (Dörfler) Holub, comb. nova.** – Bas.: *Festuca xaschersoniana* Dörfler Herb. Norm. no 5380, Vindobonae 1911. [= *Schedonorus pratensis* (Hudson) P. Beauv. × *S. phoenix* (Scop.) Holub].

***Schedonorus xfleischeri* (Rohl.) Holub, comb. nova.** – Bas.: *Festuca xfleischeri* Rohlena, Allg. Bot. Zeitschr. 1902: 85, Karlsruhe 1902. [= *Schedonorus giganteus* (Vill.) Holub × *S. phoenix* (Scop.) Holub].

***Schedonorus giganteus* (L.) Holub, comb. nova.** – Bas.: *Bromus giganteus* Linnaeus Spec. Plant., 77, Holmiae 1753.

Note: The same combination is mentioned in Roemer & Schultes Syst. Veget. 2: 644, 1817, in the synonymy of *Bromus giganteus* L. The combination is ascribed there to Gaudin (Gaudin Fl. Helv. Mss.), but in the quoted publication (Fl. Helvet. 1: 295, 1828) Gaudin (1828) did not accept the genus *Schedonorus* at all and did not give the combination *Schedonorus giganteus* even in the synonymy, where several species combinations with *Schedonorus* (in this orthographic variant) were included by him.

***Schedonorus mazzettianus* (E. Alekseev) Holub, comb. nova.** – Bas.: *Festuca mazzettiana* E. Alekseev, Bjull. Moskov. Obšč. Ispyt. Prir., ser. biol., 82/3: 99, Moskva 1977.

***Schedonorus phoenix* (Scop.) Holub, comb. nova.** – Bas.: *Poa phoenix* Scopoli Fl. Carniol., ed. 2, 1: 74, Vindobonae 1771. [= *Festuca arundinacea* Schreber].

***Schedonorus xschlickumii* (Grantzow) Holub, comb. nova.** – Bas.: *Festuca xschlickumii* Grantzow Fl. Uckermark, 340, Prenzlau 1880. [= *Schedonorus giganteus* (Vill.) Holub × *S. pratensis* (Hudson) Pal. Beauv.].

***Schedonorus uechtritizianus* (Wiesb.) Holub, comb. nova.** – Bas.: *Festuca uechtritiziana* Wiesbauer, Österr. Bot. Zeitschr. 28: 218, Wien 1878.

***Sedum pseudomontanum* Holub, nomen novum pro statu novo.** – Nomen substitutum: *Sedum rupestre* L. subsp. *erectum* 't Hart Biosyst. Stud. 101, Utrecht 1978. – Syn.: *Petrosedum erectum* ('t Hart) Grulich, Preslia 56: 40, 1984.

Note: The elevation of 't Hart's subspecies to the species rank by Grulich (l. c.) seems to be justified. The original epithet "*erectum*" cannot, however, be used in *Sedum* for an earlier homonym – *Sedum erectum* Freyn. As the taxon was mistaken for *Sedum montanum* Song. et Perr. in this country (cf. Grulich 1992), the epithet "*pseudomontanum*" is used in the newly proposed name of this taxon; its circumscription also includes plants cultivated and naturalized in Central Europe, classified here by Grulich (l. c.).

***Solidago virgaurea* subsp. *pinetorum* Holub, nomen novum.** – Nomen substitutum: *Solidago virgaurea* subsp. *stenophyllum* (G. E. Schultz) Cvelev, Fl. Evrop. Časti SSSR 7: 177, Sankt-Peterburg 1994. (Bas.: *Solidago lapponica* subsp. *stenophylla* G. E. Schultz, Novosti Sist. Vysš. Rast. 10: 249, Leningrad 1973), non *Solidago virgaurea* var. *stenophylla* Sugimoto, Journ. Geobot. 24: 63, 1977.

***Sparganium neglectum* subsp. *microcarpum* (Neuman) Holub, comb. nova.** – Bas.: *Sparganium ramosum* f. *microcarpum* L. M. Neuman in Krok Hartman's Handb. Scandinau. Fl., ed. 12, 112, Stockholm, 1889 ("*microcarpa*"). – Syn.: *Sparganium erectum* subsp. *microcarpum* (Neuman) Domin Plant. Českoslov. Enum., 53, 1935.

Note: According to the features of fruits, *Sparganium erectum* agg. could be divided into two main groups – the proper *S. erectum* L. and *S. neglectum* Beeby. By their characters, the plants corresponding to "*Sparganium microcarpum*" are very closely allied to the group of *S. neglectum* and are connected by intermediate types with that species. Therefore *S. microcarpum* is classified here to *S. neglectum* as its subspecies.

***Swida* subgen. *Umbellicrania* (Murrell) Holub, status novus et comb. nova.** – Bas.: *Cornus* subgen. *Kraniopsis* sect. *Umbellicrania* Murrell, Syst. Bot. 21: 286, Notre Dame 1996.

***Swida* subgen. *Yinquania* (Zhu) Holub, status novus et comb. nova.** – Bas.: *Yinquania* Z. Y. Zhu, Bull. Bot. Reserch North East. Forest Inst. 4/4: 121, (Harbin) 1984. – Syn.: *Cornus* subgen. *Yinquania* (Zhu) Murrell, Syst. Bot. 18: 476, 1993.

Note: A very broad concept of *Cornus* L. substantially misrepresents the state of evolutionary divergence within this complex. A splitting of such a circumscribed genus into several more natural genera is necessary. Evolutionarily primary features occur in the genus *Swida* Opiz, for present representatives of which the primitive structure of the inflorescence is especially characteristic. It is also the richest group within *Cornus* s. l. regarding the number of included species, and diverges also into a series of infrageneric taxa. In addition to the usually accepted (ditypic) subgen. *Mesomera* (Rafin.) Holub (sub *Swida*) two further taxa were recently described in *Cornus*, one monotypic as a section *Umbellicrania*, the second one with two species as the genus *Yinquania*. The species of these two groups represent types belonging to the relationship of the genus *Swida* and are classified here as representatives of new subgenera of this genus.

***Swida* ×*friedlanderi* (W. H. Wagner jun.) Holub, comb. nova.** – Bas.: *Cornus* ×*friedlanderi* W. H. Wagner jun., Michigan Botanist 29: 131, Ann Arbor 1990. [= *Swida racemosa* (Lam.) Moldenke × *S. rugosa* (Lam.) Rydb.]

***Swida muchuanensis* (Zhu) Holub, comb. nova.** – Bas.: *Yinquania muchuanensis* Z. Y. Zhu, Bull. Bot. Reserch North East. Forest Inst. 4/4: 123, (Harbin) 1984.

***Swida peruviana* (J. F. Macbride) Holub, comb. nova.** – Bas.: *Cornus peruviana* J. F. Macbride, Trop. Woods 19: 5, New Haven 1929.

×***Tormimalus* Holub, nomen nothogenericum novum.** – *Malus* Miller × *Torminalis* Medicus.

×***Tormimalus florentina* (Zuccagni in Roemer) Holub, comb. nova.** – Bas.: *Crataegus florentina* Zuccagni in Roemer Collect. Bot., 142, Turici 1809. [= *Malus sylvestris* Miller × *Torminalis clusii* K. Robertson et Phipps].

Note: *Malus* (originally *Crataegus*) *florentina* is newly considered by several authors as a taxon which originated from an ancient hybrid origin, i. e. from the hybridogenesis of two species belonging to different genera – *Malus sylvestris* Miller and *Sorbus torminalis* (L.) Crantz (= *Torminalis clusii* K. Robertson et Phipps). Browicz (1970), who devoted much attention to this hybrid, used the name ×*Malosorbus* Browicz, Fragm. Flor. Geobot. 16: 70, Kraków 1970 for this nothogenus, and proposed the nothospecific combination ×*Malosorbus florentina* (Zuccagni in Roemer) Browicz 1970 (l. c.). Most recently this classification was also adopted by K. I. Christensen (in Phitos et al. 1995: 358). When the genus *Sorbus* is divided into further genera, as was carried out by the American authors Robertson and Phipps (in Robertson et al. 1991), *Sorbus torminalis* has to be accepted as a member of a ditypic genus *Torminalis* Medicus; the present author considers this classification as correct. In this case it is necessary to create a new name for that nothogenus (though being of an ancient origin) – ×*Tormimalus* Holub, and to propose also a new nothospecific combination for its species.

***Trichera caroli-rechingeri* (Micevski) Holub, comb. nova.** – Bas.: *Knautia caroli-rechingeri* Micevski, Acta Bot. Croat. 40: 239, Zagreb 1981.

Note: Separation of the group of perennial and evolutionarily more primitive species of *Knautia* L. – remarkably rich in taxa – to the genus *Trichera* Schrader ex Roemer et Schultes is considered by the present author as justified (or necessary). A great number of nomenclatural combinations with *Trichera* was proposed in the course of the past century or at the turn of the century. Most recently a series of these combinations were created by Soják (1980; see also Holub 1979). Here, few further proposals, are given.

***Trichera catalaunica* (Szabó) Holub, comb. nova.** – Bas.: *Knautia catalaunica* Sennen ex Szabó, Bot. Közlem. 31: 126, Budapest 1934.

***Trichera xhungarica* (Borbás) Holub, comb. nova.** – Bas.: *Knautia xhungarica* Borbás, Acta Scient. Inst. Bot. Syst. Univ. Kolosvár. 1 [= Revisio Knautiarum], p. 64, Kolosváriini 1904. [= *Trichera kitaibelii* (Schultes) Borbás × *T. transsilvanica* (Schur) Holub subsp. *turocensis* (Borbás)].

***Trichera lebrunii* (J. Proudhomme) Holub, comb. nova.** – Bas.: *Knautia lebrunii* J. Proudhomme, Bull. Mens. Soc. Linn. Lyon 56: 113, 1987.

***Trichera xleucantha* (Schur) Holub, comb. nova.** – Bas.: *Knautia xleucantha* Schur, Verh. Naturf. Ver. Brünn 33: 242, 1894. [= *Trichera arvensis* (L.) Schrader × *T. drymeja* (Heuffel) Nyman × *T. kitaibelii* (Schultes) Borbás].

***Trichera maxima* (Opiz in Berchtold et Opiz) Holub, comb. nova.** – Bas.: *Scabiosa maxima* Opiz in Berchtold et Opiz Oekon.-Techn. Fl. Böhmen 2/1: 203, Prag 1838. [= *Knautia dipsacifolia* Kreutzer 1840].

***Trichera xposoniensis* (Degen in Degen, Gáyér et Scheffer) Holub, comb. nova.** – Bas.: *Knautia xposoniensis* Degen in Degen, Gáyér et Scheffer, Magyar Bot. Lapok 22: 11, Budapest 1923. [= *Trichera arvensis* (L.) Schrader × *T. kitaibelii* (Schultes) Borbás].

***Trichera xsambucifolia* (Godet) Holub, comb. nova.** – Bas.: *Knautia sylvatica* var. *sambucifolia* Godet Fl. Jura, 330, Neuchatel et Bern 1853. – Syn.: *Knautia xsambucifolia* (Godet) Briquet, Annuaire Conserv. Jard. Bot. Genève 6: 131, 1902. [= *Trichera arvensis* (L.) Schrader × *T. maxima* (Opiz) Holub].

***Trichera slovacica* (Štěpánek) Holub, comb. nova.** – Bas.: *Knautia slovacica* Štěpánek, Preslia 55: 1, Praha 1983.

***Trichera xspeciosa* (Schur) Holub, comb. nova.** – Bas.: *Knautia xspeciosa* Schur, Verh. Naturforsch. Ver. Brünn 33: 239, 1894. [= *Trichera arvensis* (L.) Schrader × *T. drymeia* (Heuffel) Nyman].

***Trichera transsilvanica* (Schur) Holub, comb. nova.** – Bas.: *Knautia transsilvanica* Schur Enum. Plant. Transsilv., 296, Vindobonae 1866.

***Vaccaria hispanica* subsp. *pyramidata* (Medicus) Holub, status novus.** – Bas.: *Vaccaria pyramidata* Medicus Philos. Bot. 1: 96, Mannheim 1789.

Note: Greuter (1995) accepts the plants of *Vaccaria hispanica* with large flowers – subsp. *grandiflora* (Ser.) Holub – as the type taxon of *Vaccaria hispanica* (Miller) Rauschert and the plants with small flowers, considered until now as being typical of the species, he treats as different from the type and classifies them (only) as a variety. The late M. Šourková (earlier personal communication) also considered at that time the possibility of the existence of a third infraspecific taxon within this species which would include Spanish plants of the species and in this way they would represent the type taxon of *V. hispanica*. However, in her compilation of the genus *Vaccaria* in Květena České republiky (Šourková 1990) she retained the usually used classification of this species, i. e. its division into two subspecies.

Additional note on *Silene bazardzica*

After the death of M. Šourková in 1993, J. Chrtek (sen.) compiled a brief article (Šourková 1995) from various notes of the deceased author with the description of a new species belonging to *Silene* subgen. *Otites*. The authorship of that article was ascribed by him to M. Šourková in deference to the late author and as an appraisal of her contribution to the knowledge of the new taxon. In a footnote to that article the compiler writes about his own work, as well as about his opinion on the taxon in question, as follows: “Compiled from dispersed notes of the deceased M. Šourková by J. Chrtek who supposes, however, that subgen. *Otites* (Adanson) Reichenb. is an independent genus. For that reason, this new silene should be designed as *Otites bazardzica* (Šourková) Chrtek comb. nova. – Bas.: *Silene bazardzica* Šourková Novitates Bot. Univ. Carol., Praha, 8/1993–1994: 48, 1995”. It follows, therefore, that J. Chrtek has to be considered as the author of the article (compiled from diverse notes of the deceased author). The new species of *Silene* (which should be given with a different authorship as *Silene bazardzica* Šourková ex Chrtek) was formally described by J. Chrtek (sen.) himself and at the same time it was transferred by him to

another genus and a new nomenclatural combination with the generic name *Otites* was proposed. So two names for the same species appeared in that article. As alternative names are not allowed in nomenclatural practice from 1. January 1953 (Code ICBN 1994), neither of the proposed names – *Silene bazardzica* and *Otites bazardzica* – has been validly published; according to the Code ICBN 1994, Art. 34, Ex. 10, they both represent invalidly published names. In memory of the industrious student of the group *Otites*, RNDr. Michaela Šourková, a new name is proposed here for the species in question based on her first (Christian) name – *Otites michaëlae* – with reference to the description, differences from related taxa and the nomenclatural type (holotype) contained in the article by J. Chrtek:

***Otites michaëlae* Holub, spec. nova** = *Silene bazardzica* Šourková ex Chrtek (sen.), Novitates Bot. Univ. Carol. 8/1993–1994: 48–49, Praha 1995, nomen invalidum (ubi descriptio Latina, differentiae typusque indicati sunt).

Additions and notes to the Index Kewensis:

During the work on this contribution, some names were found to be missing in the Index Kewensis (up to its Supplement 20, 1991–1995). They are:

Knautia × *hungarica* Borbás
Knautia × *leucantha* Schur
Knautia × *sambucifolia* (Godet) Briquet
Knautia × *speciosa* Schur
Scabiosa maxima Opiz

Somewhat different quotations for places of publication were found in the Index Kewensis for the two following names:

Adonis × *hybrida* Simkovicz
Festuca lasto Boiss.

The correct or revised citations of the above seven names are given as basionyms of the new proposed combinations in the list contained in the preceding chapter. Here a further name missing from Index kewensis may be given (with the full publication place):

Potamogeton juncifolius Kerner ex Fritsch, Verh. Zool. Bot. Ges. Wien 45/1895: 366, 1896.

Summary

In the course of a long-term study since 1975 a considerable amount of information relating to the taxonomy and nomenclature of various groups of vascular plants has been accumulated. Part of this work, in which 151 new proposals are made, forms the content of this contribution. Of that number, 131 newly proposed nomenclatural combinations are based on reclassifications connected with the transfer of taxa to other (and as a rule more narrowly circumscribed) genera. Several combinations (three or more) are proposed for taxa of the following genera: *Avenula* (*Helictotrichon*), *Calathiana* (*Gentiana*), *Chrysocyathus* (*Adonis*) *Drymochloa* (*Festuca*), *Gentianella* (*Gentiana*), *Klasea* (*Serratula*), *Logfia* (*Filago*), *Noccaea* (*Thlaspi*), *Otites* (*Silene*), *Pseudolysimachion* (*Veronica*), *Rhodax* (*Helianthemum*), *Sassia* (*Oxalis*), *Sceptridium* (*Botrychium*), *Schedonorus* (*Festuca*), *Swida* (*Cornus*) and *Trichera* (*Knautia*). In addition to these combinations, five nothogeneric names are proposed: ×*Filfia* (*Filago* × *Logfia*), ×*Reyloopia* (*Fallopia* × *Reynoutria*), ×*Ribularia* (*Grossularia* × *Ribes*), ×*Schedolium* (*Lolium* × *Schedonorus*) and ×*Tormimalus* (*Malus* × *Torminalis*). Notes are added to the proposals for 28 of the new combinations. The author considers, int. al., the division of *Oxalis*, accepting the separation of the

genus *Sassia* Molina (bulbous types of South and Central America with leaves only in basal rosettes). In *Festuca* (after an earlier separation of the genus *Drymochloa* in 1983) the present author also recommends the separation of the group *Schedonorus* (in a very restricted circumscription) as an independent genus, i. e. not to combine it with *Lolium* as was most recently proposed. Perennial taxa of *Knautia* are again classified into the genus *Trichera*, as was accepted in the last century. In notes added to selected taxa the following problems are mentioned: acceptance of the genus *Alsine*; taxonomy of the Californian representative of the genus *Micropus*, resp. *Bombycilaena*; classification of native North American species of *Filago* to *Logfia*; nomenclature of *Aconitum vulparia*; nomenclature of the genus based on *Aster linosyris* (its correct name is *Crinittina* Soják); taxonomy of *Jovibarba globifera*; priority of *Logfia* over *Oglifa*; nomenclature of subspecific taxa of *Vaccaria hispanica* etc. *Gentianella praecox* belongs to the group of Hercynian representatives of *Gentianella*, and not to the group of Carpathian – Balkan types, into which it was erroneously included. The correct authorship of this combination was determined. Two nothosubgeneric names of *Rubus* are corrected. *Sparganium microcarpum* is transferred to *S. neglectum*. Some additions and corrections to Index kewensis are given.

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Souhrn

V průběhu dlouhodobého studia taxonomicko-nomenklatorické problematiky různých skupin cévnatých rostlin byl od r. 1975 nashromážděn rozsáhlý materiál, jehož část je zde zveřejněna. Článek obsahuje 151 nových návrhů nomenklatorických kombinací a nových jmen. Většina z nich (131 případů) jsou návrhy nomenklatorických kombinací, založených na taxonomických reklasifikacích, spojených s převodem taxonů do jiných (zpravidla úžeji a přirozeněji vymezených) rodů. Tři nebo více kombinací je zde navrženo pro taxony následujících rodů: *Avenula* (*Helictotrichon*), *Calathiana* (*Gentiana*), *Chrysocyathus* (*Adonis*), *Drymochloa* (*Festuca*), *Gentianella* (*Gentiana*), *Klasea* (*Serratula*), *Logfia* (*Filago*), *Noccaeae* (*Thlaspi*), *Otites* (*Silene*), *Pseudolysimachion* (*Veronica*), *Rhodax* (*Helianthemum*), *Sassia* (*Oxalis*), *Sceptridium* (*Botrychium*), *Schedonorus* (*Festuca*), *Swida* (*Cornus*) a *Trichera* (*Knautia*). Dále jsou v článku navržena jména pro 5 hybridních rodů: $\times$ *Filfia* (*Filago* $\times$ *Logfia*), $\times$ *Rexylopia* (*Fallopia* $\times$ *Reynoutria*), $\times$ *Ribularia* (*Grossularia* $\times$ *Ribes*), $\times$ *Schedolium* (*Lolium* $\times$ *Schedonorus*) a $\times$ *Torminalus* (*Malus* $\times$ *Torminalis*). K vybraným návrhům nových jmen a kombinací jsou připojeny poznámky (celkem 28). V poznámkách jsou osvětleny taxonomická a nomenklatorická řešení konkrétních případů. Autor přijímá určité rozdělení rodu *Oxalis*; zde je přijato odčlenění rodu *Sassia* (přijato již v Květeně ČR, vol. 5) pro cibulnaté typy původní v Jižní a Střední Americe s listy jen v přzemní růžici. Po dřívějším vyčlenění rodu *Drymochloa* Holub v r. 1983 z rodu *Festuca* (pro něž jsou zde navrženy další 4 druhové kombinace), autor doporučuje vyčlenění další skupiny z tohoto rodu – *Schedonorus* – jako samostatného rodu; argumentuje proti jeho spojování s rodem *Lolium*, jak bylo nejnověji provedeno. Vytvrálé druhy rodu *Knautia* jsou zde přijímány jako druhy rodu *Trichera*, jak to bylo často akceptováno v předešlém století. V poznámkách připojeným k vybraným jednotlivým taxonům jsou probírány následující důležitější problémy: nomenklatura *Aconitum vulparia*; přijetí rodu *Alsine* (tj. jeho vyčlenění z rodu *Stellaria*); taxonomie kalifornského zástupce rodu *Micropus*, resp. *Bombycilaena*; nomenklatura rodu založeného na druhu *Aster linosyris* (jeho správné jméno je *Crinittina* Soják); taxonomie druhu *Jovibarba globifera*; priorita rodového jména *Logfia* oproti jménu *Oglifa* (původně podrodové jméno); nomenklatura subspecifických taxonů druhu *Vaccaria hispanica*, atd. *Gentianella praecox* patří ke skupině hercynských zástupců tohoto rodu, a ne ke karpatsko-balkánským typům, k nimž byla omylem brzy po svém popsání přiřazena. Bylo stanoveno správné autorství kombinace *Gentianella praecox* – autorem je slovinský botanik E. Mayer. Dvě nesprávně sestavená jména hybridních podrodů rodu *Rubus* jsou zde opravena. *Sparganium microcarpum* je převedeno k druhu *S. neglectum* jako jeho subspecie. U jména *Schedonorus* je upozorněno na rozsáhlejší případ ortografické varianty než je tento jev prezentován v Kódu ICBN. V závěru jsou uvedeny doplňky jmen scházejících v díle Index kewensis, resp. opravy citací jmen v tomto díle.

Z hlediska květeny ČR je možno upozornit na změny v nomenklatuře u druhů *Aconitum vulparia* (správné jméno je *A. altissimum*), změnu jména *Dactylorhiza majalis* na *D. comosa* (se 2 subspeciemi – subsp. *majalis* a subsp. *turfosa*), nové hodnocení hořečků – *Gentianella praecox* subsp. *praecox* a subsp. *bohémica*, *Sedum pseudomontanum* (jméno pro zplaňující taxon z okruhu *S. rupestre*), zavedení jména *Trichera maxima* a řady jmen

pro hybridy v tomto rodě, novou klasifikaci *Adonis vernalis* jako *Chrysocyathus vernalis* atd. V rodu *Schedonorus* nelze užít epiteton "arundinaceus" pro druh *Festuca arundinacea* a druh proto nese v tomto rodu jméno *S. phoenix*. Druh *Galeobdolon endtmannii* – nově popsáný z Německa – může být nalezen i na našem státním území.

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