INTRODUCTION

The flora of the Mediterranean area presents an outstanding phytogeographical phenomenon and its diversity and richness have always attracted botanists with various research interests. Till now no publication, however, has been compiled which would describe this flora in its whole geographic range. By the merit of the organization OPTIMA we obtained the first volume from the six planned volumes of this critical survey of Mediterranean flora. The work should represent a synonymic catalogue of vascular plants of the studied area. In most cases the nomenclature was revised both from nomenclatural and bibliographic viewpoints and therefore the work certainly will be in this sense an important information source as this was otherwise emphasized by the present author in his review published in Czech in this journal (HOLUB 1985b).

Some comments are given in the following text resulting from studying this book; they are either of a more general or of a more special character, the latter ones referring to some selected taxa. Special comments include mostly bibliographic and nomenclatural amendments, but in some cases different taxonomic opinions by the present author are also dealt with. The bibliographic and nomenclatural revision has disclosed some imperfections in the Index Kewensis, too, which are mentioned at the close of this paper. Taxonomic and nomenclatural study resulted in some new taxonomic reclassifications and proposals of new nomenclatural combinations, the set of which is given in an Appendix to this paper. Most combinations are commented on in the chapter containing special notes; comments on new combinations...
have not been added in cases when the present author has continued only in completing cases already earlier explained by him or when no need of any further explanation has existed. Changes in names connected with the acceptance of generic names Aegonychon, Buglossoides, Cynoglottis, Ixoca, Lithodora, Oberna, Petrorhagia and Rhodax belong here.

At this revision material has also been partially used, which originally was collected by the present author for his earlier planned work "Catalogue of Czechoslovak flora", the edition of which has not been made possible (cf. Holub 1972: 112).

GENERAL COMMENTS

The circumscription of some taxa is very broad; this refers especially to genera, e.g. Asplenium, Bassia (incl. Kochia), Cheilanthes, Cynoglossum, Lappula, Stellaria and Thelypteris. Sometimes the circumscription is unnaturally broad as in Lycopodium and Silene. On the other hand a narrower circumscription of some genera is used, too, e.g. in Chenopodiaceae (Blitum, Sarcocosma), and will be used also in further volumes of the work (e.g. segregants of Scabiosa). This shows some inconsistency in the approach to the use of the generic classificatory unit. A rather broad circumscription of species is used in some cases, e.g. in Spergula arvensis and Cerastium fontanum.

It is a pity, that the synonymy does not contain all names which would represent the correct names in other possible (i.e. ± equally justified) taxonomic classifications, different from that accepted in this work. Though in many cases such names are given in the synonymy, notwithstanding in some places the corresponding names are fully or partially missing (e.g. the combinations with generic names as Botrypus, Dichodon, Duschekia, Ixoca, Kohlrauschia, Otites, Rhodax, Sceptridium, Steris etc.). Analogously, sometimes basionyms for such possible taxonomic classifications are absent. For example the synonymy of Thelypteris phegopteris does not include the name Polypodium connectile, on which the often used (and from the taxonomic viewpoint probably the most correct or the most suitable) name Phegopteris connectilis is based. A similar case is omission of the name Stellaria viscida in the synonymy of Cerastium dubium. Often the quotations of names are absent, which in fact raise the necessity of using a certain subspecific epithet, i.e. publication places of first uses of given epithets in the subspecies rank.

In cases of plant names taken over by the publishing author from another author, the authorship of such names is abbreviated here only to the name of the publishing author. Consequently, such cases as "Kit. ex" are not given in this book. It is, however, not certain that all names with the possibility of the occurrence of "ex" or "in" in their authorships are correctly given in the Med-Checklist 1. It has to be stressed, that exclusion of "ex" authors – e.g. "Kit. ex Schultes", what means an abbreviation of the authorship to the second (publishing) author only, represents in many cases a certain break in understanding the history of the knowledge of the respective taxon. Especially in cases when the "first author" was of a fundamental importance for recognition of the taxon, this method does seem to be unsuitable (and also somewhat unethical), though it is in a full correspondance with the
rules of the present Code ICBN. "WALDST. et KIT. ex WILLL." and "KIT. ex SCHULTES" may be given here as typical examples. Some concrete data on the last mentioned case are given at the beginning of the next chapter.

The present author considers as unsuitable the manner of changing the original orthography of the name of the author against the mode used in the pertinent publication. This refers here especially to TCHIHATCHEFF, who is given by an abbreviation Čháč., probably from the orthography Čháčev, (see p. 198). Here the quotation is not a transcription of a name of an author written (printed) in another alphabet than in the Latin one, but a change of the name of an author having published his whole work in the Latin alphabet; TCHIHATCHEFF’s book was written in French. The proposers, who should solve problems of transcription of author’s names from other alphabets to the Latin alphabet working on these problems in the period before the Congress in Sydney for purposes of the Code, hardly had in mind such licentious changes of author’s names. The method used in this case refers virtually to the type “ad personam”, and not to the type “ad opus”, the latter of which should always have been used (the author’s name as a component of the bibliographic quotation!). By using this method unnecessary difficulties can certainly arise in libraries and bibliographies.

SPECIAL NOTES

KITAIBEL ex SCHULTES

Two kinds of quotations of author’s names are used in the Med-Checklist 1 for the species names which SCHULTES obtained from KITAIBEL for the second edition of his Österreichs Flora, 1814. In some cases, only “SCHULTES” is given (as an abbreviated authorship instead of “KIT. ex SCHULTES”), in others “KIT. in SCHULTES”. Two volumes of SCHULTES’ book contain 70 such names; 40 of them belong to the first group (“ex”), 30 to the second (“in”). An enumeration of these names will be published elsewhere. Cases of the “in” quotation may clearly be differentiated in SCHULTES’ book from the “ex” cases according to whether KITAIBEL’s name is added (or not) by SCHULTES to the diagnoses of respective species names. The Med-Checklist 1 includes eight names obtained by SCHULTES from KITAIBEL. Their authorships are not correctly given in all cases. “SCHULTES” (or, in my opinion, more correctly “KIT. ex SCHULTES”) should be given as the author to the following species names: Arenaria frutescens (219), Campanula elliptica (128), Corispermum canescens (301), C. nitidum (301) and Cucubalus marginatus (279). The authorship “KIT. in SCHULTES” (or, in my opinion, the more suitable method “KIT. ap. SCHULTES”) belongs to the names Dianthus compactus (186), D. trifasciculatus (206) and Thesium serratum (139). Corrections of authorships have therefore to be done in the Med-Checklist 1 in two cases, i. e. in Arenaria frutescens (SCHULTES) and Thesium serratum KIT. in SCHULTES.

P. 17: Dryopteris affinis

Dryopteris affinis agg. includes several taxa differing morphologically, karyologically and partly also in their genomes, which, with respect to their
apogamous type of reproduction should be classified rather as small species than subspecies (HOLUB 1984a). Among the taxa included in the Med-Checklist 1 and occurring also in Central Europe, the following two should be considered as separate species: subsp. borreri (NEWMAN) FRASER-JENKINS and subsp. stilluppensis (SABR.) FRASER-JENKINS. On the other hand, in the classification of subsp. robusta FRASER-JENKINS, its rank seems to be overvalued (see also FRASER-JENKINS 1982 : 206, and FRASER-JENKINS et SALVO 1984— the latter authors already used the classification of this taxon in the rank of variety) and its classification as a variety corresponds better to the character of this taxon. A species binomial for subsp. stilluppensis is proposed in the Appendix at the close of this study. For subsp. borreri the name Dryopteris pseudomas (WOLLASTON) HOLUB et POUZAR 1967 was used by the present author (HOLUB 1984a); according to the oral information by FRASER-JENKINS (Průhonice, 24. 10. 1985), the lectotype of its basionym Lastrea pseudomas WOLLASTON selected by him belongs to the diploid taxon of the aggregate, i. e. to D. affinis (LOWE) FRASER-JENKINS s. s. The epithet "borreri", correct for this taxon in the subspecies rank, reached the species rank in 1937 (see Med-Checklist 1 : 17, 1984) before that a justified species binomial Dryopteris mediterranea FOMIN 1934 was proposed for this species (used by HOLUB and POUZAR in this taxonomic sense in an unpublished manuscript written in the earlier sixties — cf. HOLUB 1967 : 332). This FOMIN’s name is therefore used here in connection with classification of subsp. robusta as a variety.

P. 46: Amaranthus blitum and A. cruentus

The standard flora manual of Czechoslovakia — DOSTÁL J. [et al.], Květena ČSR — was published in 1948—1950. The text of its special part appeared in three portions: p. 1—800 in April 1948, p. 801—1488 in June 1949, p. 1489—2289 in October 1950 (see p. 4 of the introductory part of the book). The publication of the general introductory part of the book closed the work in December 1950. Therefore it is necessary to change the year 1950 at the combination Amaranthus hybridus subsp. paniculatus (L.) HEJNÝ in DOSTÁL to 1948 (IV.). Unfamiliarity of the successive edition of DOSTÁL’s book resulted in the fact that the authorship of the combination Amaranthus lividus subsp. polygonoides was attributed to PROBST 1949, though it was validly published a year earlier by HEJNÝ in DOSTÁL et al., Květena ČSR, 447. 1948 (IV.). The combination is given in DOSTÁL’s book with a probably ascribed authorship — "(ZOLL.) THELL.".

P. 64: Alnus viridis

The correct name for Alnus viridis is A. alnobetula (EHRH.) K. KOCH 1872, based on Betula alnobetula EHRH., Gartenkalender (ed. HIRSCHFELD) 2 : 192, 1783 (see POUZAR, 1982), which was published earlier than Betula viridis CHAIX 1785 (the basionym of the species name used till now). POUZAR (l. c.)
proposed also a new combination *Duschekia alnobetula* (EHRH.). Pouzar, Časopis Národ. Muz. v Praze, Ser. Natur., Praha, 151 : 20, 1982 (V.). The present author accepts the genus *Duschekia* Opiz as taxonomically justified (see Holub 1967b) and as a consequence of the above-mentioned nomenclatural change of the species name a new name for subsp. *suaveolens* is proposed in the Appendix below.

P. 141: *Campanula sibirica* subsp. *divergentiformis*

Two mistakes have to be emended in the above name, accepted in the Med-Checklist 1 as a correct name for the taxon the taxonomy of which is somewhat uncertain (cf. Holub 1977). The first correction refers to the place of publication of Domín's combination, which should be "Plant. Čechoslov. Enum., 222, 1935". Domín's "Enumeratio" was published separately under the above proper title (though with the heading of the periodical Preslia in the title page) in 1935 and later together with a part of a bibliographic series ("Bibliographia Čechoslovaca Botanica VI.") listing publications from the year 1934 as the 13.—15. volume of Preslia in 1936. All new nomenclatural combinations by Domín from this publication have to be quoted from "Enumeratio" and with the publication year 1935, and not from the corresponding volume of Preslia from 1936, as is usually practiced. The present author disclosed this circumstance earlier when he published his comments on Flora Europaea (Holub 1977). A separate edition of Domín's publication is regrettably not mentioned in the compendium "Taxonomic literature" (Stafleu et Cowan 1976). A survey of selected names from Domín's book (more important for the present nomenclature) will be given elsewhere.

The second correction refers to the quotation of the basionym of the accepted correct name. The authors of the Med-Checklist 1 accept the name *Campanula sibirica* var. *divergentiformis* Jávorka Magyar Fl., 1073, 1925 as the basionym of the used correct name. It must be emphasized that in this work Jávorka did not precisely classify infraspecific taxa between variety and small species to formal ranks; therefore the present author designated them as "paragraph" taxa (Holub 1984b). It is not possible to consider the above mentioned "basionym" as a name in the rank of variety, but only as a name without having a precise rank (a case somewhat analogous to Gaudin's infraspecific taxa accepted by many authors erroneously as subspecies). To the classification of Jávorka's taxon as a variety Domín could also probably contribute to a certain extent, as he gave Jávorka's name in "Enumeratio" in the form "*C. sibirica* (var.) *divergentiformis* Jávorka"; this method of quotation shows (justified) taxonomic uncertainty of Domín at giving the citation of the trinomial by Jávorka. The above-quoted place in Jávorka's "Magyar Flóra" is, however, not the place of the first description of the taxon under consideration by Jávorka nor the first use of the epithet "*divergentiformis*". In the previous year, Jávorka described this taxon as *Campanula sibirica* L. f. *divergentiformis* Jávorka, Bot. Közlem. 20/1922: 150, Budapest 1924, and this name overlooked by the authors of the Med-Checklist 1 represents the real basionym of the accepted Domín's subspecies combination.
No real basionym is given for the combination *Cerastium banaticum* subsp. *speciosum* (Boiss.) Jalas. The designation of *C. speciosum* (Boiss.) Hausskn. 1893 as a basionym for that subspecific combination is imperfect. The correct basionym for the combination concerned is *C. grandiflorum* Waldst. et Ktt. f. (var.) *speciosum* (Sprunner ex) Boiss. Fl. Orient. 1 : 727, 1867. — See also Jalas, Annal. Bot. Fenn. 20 : 109, 1983.

The nomenclature of this taxon has become so confused and difficult to solve that the authors of such an indisputably nomenclaturally significant work as Med-Checklist, along with the authors of Flora Europaea and Atlas Florae Europaeae, could not avoid using a false name. The problems of nomenclature of this taxon in the rank of species and subspecies will be discussed separately in a more extensive paper (Holub in prep.), and therefore problems of the subspecific name of this taxon used in the Med-Checklist 1 are only briefly examined here.

The radical taxonomic error of the above mentioned publication works is the use of the epithet "macrocarpum" from the name *Cerastium macrocarpum* Schur Verh. Mitt. Siebenbürg. Ver. Naturwiss. Hermannstadt 10 : 131, 1859 for the taxon under consideration (no matter whether it is classified as a species or as a subspecies). This mistake originated from the monographer Gartner (1939), who transferred this Schur's species name fully to (taxonomically not very clear) mountain plants of southeastern Alps to which he added the taxon under discussion as its subspecies (ut subsp. luco-rum). *C. macrocarpum* Schur according to its single locality, habitat and accompanying plants clearly refers to *C. fontanum* Baumg. 1816 s. s. (Holub in prep.). In this correct taxonomic sense the name by Schur was also used by the two first authors classifying this Schur's taxon in the subspecies rank — Nyman Conspl. Fl. Europ., 108, 1878, and Kotula Distrib. Plant. Vascul. Mont. Tatr., 268, 1890.

A mistake of the authors of Med-Checklist 1 (Greuter et al. 1984) is mentioning the name *Cerastium macrocarpum* Ledeb. Fl. Ross. 1 : 407, 1842, as an earlier validly published homonym of Schur's above mentioned name. In the quoted place of Ledebour’s book this announced species binomial is, however, missing; only the name *Cerastium vulgatum* L. γ *macrocarpum* Ledeb. is given there, in which the epithet "macrocarpum" is fully clearly published in the rank of variety. On the basis of this (not existing) species name "*C. macrocarpum* Ledeb. 1842" the valid and legitimate species name *C. macrocarpum* Schur 1859 was (mistakenly) declared as an illegitimate name (a late homonym) and therefore its author Schur was omitted as the bracket author from the (taxonomically erroneous) subspecies designation of the taxon under consideration including the epithet "macrocarpum". This change was made for example by Jalas (Atlas Fl. Europ. 6 : 105, 1983), when Kotula was used to substitute the "illegitimate" author Schur as a bracket author.
In the Med-Checklist 1 an unfortunate “precision” of the authorship was made. Instead of the correct author B. KOTULA another namesake — A. KOTULA (the author of the name Betula obscura, having, however, nothing common with the plant under consideration) was given. B. KOTULA accepted the epithet “macrocarpum” from SCHUR, whom he gave directly (according to the customs of that time) as the author of the subspecies combination; by this he also took over his type. B. KOTULA himself did not give any description or data on the taxon other than a list of localities in the Tatra Mts., from which clearly follows, that he had in mind again C. fontanum BAUMG. 1816 s. s. The lowland taxon “subsp. macrocarpum” (= subsp. lucorum) is in Poland analogically as elsewhere in Central Europe confined to lower elevations, the upper limit of its continuous occurrence being situated in heights about 600 m a. s. l. and only sporadically occurring higher. ZAJAC (1975) knows from the surroundings of the Tatra Mts. (the region of KOTULA’s book) only one locality of “C. macrocarpum”, i. e. the valley Dolina Koscieliska in comparison to a great number of localities of C. fontanum s. s. in this region. The altitude of this locality may be estimated at most at 950 m a. s. l.

The epithet “macrocarpum” cannot be taken over neither from SCHUR nor from any other author for the plants under consideration, and this nor in the species rank (where SCHUR’s name with GARTNER’s “emendation” was taken over for example by ZAJAC, 1975), nor in the subspecies rank, which in the present time is the most often used rank for this taxon. HOLUB (1985a, manuscript finished in 1975!) listed many subspecies names used in the last time for this taxon (10 subspecies names in the last 40 years). The correct name for the discussed taxon in the classification accepted in Flora Europaea, Atlas Florae Europaeaee and Med-Checklist 1 seems to be Cerastium fontanum BAUMG. subsp. lucorum (SCHUR) Soó, Acta Bot. Acad. Sci. Hungar. 15 : 340, 1969 (an 1970 ?), which follows from the use of the subspecies epithet “lucorum” by GARTNER (1939).

When our taxon is classified as a species (what the present author considers as taxonomically the most correct solution — cf. HOLUB 1985a), the name C. lucorum SCHUR 1877 is used by some authors besides the taxonomically erroneous name C. macrocarpum SCHUR 1859. The use of the name C. lucorum SCHUR 1877 (or C. lucorum SCHUR em. MöSCHL as given by SMEJKAL 1981) is nomenclaturally erroneous as SCHUR used the epithet “lucorum” distinctly and clearly only as a name of a variety — Cerastium glanduliferum SCHUR var. lucorum SCHUR, Verh. Naturf. Ver. Brünn 15 : 150, 1877 (and no real alternative species name with that epithet was in fact proposed by him in that place simultaneously). The correct species name of the taxon under discussion was probably published only recently as Cerastium lucorum (SCHUR) MöSCHL, Mitt. Naturwiss. Ver. Steiermark 103 : 157, 1973 (cf. HOLUB 1985a). The names including other epithets as “glandulosum” or “nemorale” will be discussed in the study under preparation (HOLUB in prep.).

P. 186: Dianthus barbatus subsp. compactus

The combination Dianthus barbatus subsp. compactus was validly published earlier than by STOJANOVIć in 1966 (which is accepted in the Med-Checklist 1
as the correct name), e. g. by DOSTÁL in 1948 — cf. DOSTÁL et al. Květena ČSR, 432, 1948 (IV.). An even earlier valid publication of this combination, can, however, be found in NYMAN Consp. Fl. Europ., Suppl. 2/1 : 58, 1889, which seems to be the correct name of this taxon in the rank of subspecies. On the other hand, attribution of this combination to HEUFFEL (Verh. Zool. Bot. Ges. Wien 8 : 68, 1858) in Flora Europaea (1 : 199, 1964) is not justified; HEUFFEL (1. c.) classified the taxon explicitly as a variety.

P. 202: Dianthus pontederae

When the taxonomic classification of *Dianthus pontederae* A. Kerner 1882 s.l. is taken over from Flora Europaea (1 : 202, 1964) as is realized in the Med-Checklist 1, an earlier name exists for the species in this circumscription. Admirably, this name is also given in the Med-Checklist 1 in the synonymy of the above species with its true year — *D. giganteiformis* Borb. 1876. Necessity of a cross replacement of the two names in the accepted classification (i. e. subordination of *D. pontederae* to *D. giganteiformis* as its subspecies) was apprehended by Soó who proposed the new combination in 1969 (Acta Bot. Acad. Sci. Hungar. 15 : 339, 1969, an 1970 ?) — see also Soó Synopsis Syst. Geobot. Fl. Veget. Hungar. 4 : 330, 1970.

However, an even earlier species name exists for *D. giganteiformis* Borb. 1876: *D. sabuletorum* HEUFFEL, Verh. Zool. Bot. Ges. Wien 8 : 68, 1858. This name was usually considered as illegitimate, i. e. as a homonym to a name proposed by WILLKOMM. Virtually, no such real earlier homonym in the species rank exists, though its presence repeatedly has been given in the literature during the period of more than hundred years (HOLUB 1984a). HOLUB (l.c.) proposed also the names for two further subspecies of the species accepted in the Med-Checklist 1 — subsp. *pontederae* (A. KERNER) HOLUB, Folia Geobot. Phytotax. 19 : 184, 1984, and subsp. *kladovanus* (DEGEN) HOLUB l.c.

P. 239: Petrorhagia illyrica subsp. haynaldiana

In the synonymy of this taxon only two names are given with full literature quotations and both are either invalid or confused. The name *Gypsophila haynaldiana* JANKA, Oesterr. Bot. Zeitschr. 20 : 316, 1870, given here as the basionym of the accepted subspecies name is a “nomen nudum” (nothing but a designation of plants from an exsiccate collection which JANKA intended to describe later and elsewhere), as any description is missing here and only a hint at the taxonomic position of the new species between two other species of the genus is given (i.e. being between *G. illyrica* and *G. ochroleuca*). This “nomen nudum” was incorrectly used by the monographers BALL et HEYWOOD (1964) as the basionym of a new combination *Petrorhagia illyrica* subsp. *haynaldiana*, later generally taken over by following authors.

In the literature, the name *Tunica haynaldiana* (JANKA) NYMAN Consp. Fl. Europ., Suppl. 2 : 57, 1889, is sometimes given, which, however, is also based on the above mentioned invalidly published name by JANKA and as its protologue does not include any reference to some earlier description, it is also nothing else than a “nomen nudum”.

296
The second name given in the synonymy in the Med-Checklist 1 — *Tunica haynaldiana* (JANKA) BORBÁS, Math. Természettud. Közlém. 12 : 165, 1876, is fully mistaken and confused. In the quoted place a paper by JANKA (and not by BORBÁS) can be found, the name "*Gypsophila haynaldiana* JANKA" (and not *Tunica haynaldiana*) is given there, and this only as a synonym of the accepted species name *Gypsophila illyrica* S. et Sm., to which species JANKA annexed his plants. JANKA (i.e.) mentioned some features of his plants as being different from the description of *Gypsophila illyrica* published by BOISSIER (Fl. Orient. 1 : 520), but he is not certain with the exactness of BOISSIER’s description. In this publication place JANKA did not make valid his earlier ‘nomen nudum’, as he did not clearly accept it and on the contrary he distinctly placed it into the synonymy. This JANKA’s name from 1876 is (superfluously) quoted also in the Index Kewensis (Suppl. 1, [Add. Emend. 1 :] 478, 1906), here (in comparison with the Med-Checklist 1) containing the correct name of the genus. It cannot be excluded, that the name *Tunica haynaldiana* could virtually (and validly) be published by BORBÁS in some of his papers; it seems, however, that BORBÁS came to the authorship of the combination in the Med-Checklist 1 rather by a mistake, as the Hungarian title of JANKA’s paper includes his name in connection with the whole citation of his earlier paper, on which JANKA here critically reassumes (see “References” in the close of this paper).

All three above discussed names of the taxon under consideration are invalid and it is impossible to base a correct name of the present classification on any one of them, as this was made in the monograph by BALL et HEYWOOD (1964) and after that in all literature which has taken over this mistake, the Med-Checklist 1 including. The first description of JANKA’s plant was given, according to my knowledge, as late as 1890, by F. N. WILLIAMS. The name published by him must therefore serve as the basionym of further combinations: *Tunica haynaldiana* [JANKA ex] F. N. WILLIAMS, Journ. Bot. Brit. Foreign 28 : 197, London 1890. On the basis of the above analysis, in all combinations with the epithet “haynaldiana” it is necessary to accept F. N. WILLIAMS (1890) as the correct author of the basionym and consequently to give him always as the bracket author instead of JANKA.

P. 268: *Silene otites* subsp. *pseudotites*

*Silene otites* L. and *S. pseudotites* Bess. ex REICHENB. have usually been united in classifications into one species, as a rule as subspecies. *S. pseudotites* (in its original conception) represents, however, in the species contents of *Silene otites* agg. a separate element occurring in southeastern France and northern Italy (having been described from the surroundings of Trieste), from where it probably also transgresses to northwestern Jugoslavia. The use of this name for Central European plants is therefore not justified.

The conception of the species *Silene otites* including two subspecies in the area of Czechoslovakia was accepted by the present author in 1971 (HOLUB in HOLUB, MÉŠÍČEK et JAVŮRKOVA 1971), and this at the same time with acceptance of the classification of this species group as a component of the genus *Otites* ADANS. 1763. The Central European plants, for which the name "*Silene pseudotites* Bess." in general has been used, belong to the main species.
of the aggregate and not to the mentioned species described from the vicinity of Trieste; in the taxonomic rank of subspecies (normally used for them) they have no proper name either in Silene or in Otites. If my earlier classification for the territory of Czechoslovakia (i.e. a species with two subspecies belonging to the genus Otites) will be accepted, the correct name of the species circumscribed in this way is Otites cuneifolia Rafin. 1840. In addition to the type subspecies of this species (subsp. cuneifolia) more robust plants occur (mostly in the eastern part of Czechoslovakia, but represented also in the western part) with larger and elongated basal leaves, more branched inflorescences (also in female plants) and somewhat smaller flowers and fruits ("Silene pseudotites auct."), for which a new name has to be proposed in the rank of subspecies. Podpéra (1922) described a taxon from sandy southeast Moravia as Silene pseudotites var. arenaria (but before being classified by him in herbarium determination labels as subsp. arenaria), and this name is used by the present author in proposing the correct name of the taxon in the rank of subspecies: Otites cuneifolia Rafin. subsp. arenaria (Podp.) Holub (see the Appendix below).

P. 281: Spergula arvensis

In the synonymy of this broadly circumscribed species the name Spergula arvensis L. subsp. sativa (Boenn.) Čelak. is given. As the name Spergula sativa Boenn. 1824 is in fact only an illegitimate renaming of S. arvensis L. 1753, it cannot represent a direct basionym for the combination S. arvensis L. subsp. sativa (Boenn.) Čelak. 1875 and Boenninghausen cannot be given as the bracket author as presented in the Med-Checklist 1. At the acceptance of "Spergula sativa" (sensu auct.) as a separate small species or as a subspecies of S. arvensis, a problem of its correct name originates, which could not be solved by the present author till now.

P. 294: Atriplex nitens

As was demonstrated by Kirschner (1984) most recently, the name Atriplex nitens Schkuhr 1803 is illegitimate, as its protologue included a reference to an earlier validly published name A. sagittata Borkh. 1793. After an analysis of the description belonging to it, the latter name proved to be the correct name for the taxon known for a long time as A. nitens Schkuhr 1803 and recently also as A. acuminata Waldst. et Kit. 1803. The correct name of this species is as follows: Atriplex sagittata Borvhausen, Rheinisches Mag. Erweiterung Naturk. 1: 477, 1793.

P. 309: Salsola kali

In the synonymy of this species the subspecies name subsp. tragus (L.) Nyman 1881 is given. This combination was, however, validly published by Čelakovský ten years before Nyman: Salsola kali L. subsp. tragus (L.) Čelak. Prodr. Fl. Böhmen [2:] 155, Prag 1871.
"Soó in Soó et JÁVORKA 1951" is given to the accepted subspecies combination subsp. salsa as the author of this combination. The combination was, however, validly published by JÁVORKA in 1924 (cf. HOLUB 1984b) and has therefore a priority: Suaeda maritima (L.) DUMORT. subsp. salsa (L.) JÁVORKA Magyar Fl., 294, Budapest 1924. For determination of the nomenclatural competency of the name subsp. prostrata (L.) Soó in Soó et JÁVORKA 1951 accepted in the Med-Checklist also as a correct subspecies name, a taxonomic revision of the name subsp. salinaria (SCHRUR) JÁVORKA 1924 had to be carried out, since HOLUB (1984b) had called attention to this fact.

P. 328—330: Tuberaria

The genus Tuberaria (DUNAL) SPACH is composed of two groups of species, which till now have usually been classified as sections — sect. Eutuberaria WILLK. 1859 (= sect. Tuberaria) and sect. Scirpoïdes WILLK. 1859. Between these two taxonomic groups differences exist in morphology (in various parts of the plant body) and karyology, which demonstrate their sufficient evolutionary differentiation within the family Cistaceae, and consequently also stress the usefulness of their generic separation. LÖVE et KJELLQUIST (1964) and MARKOVA (1975) attained this classification, especially with respect to karyological differences between these groups (difference in the basic chromosome numbers: \(x = 7\) in perennials and \(x = 6\) in annuals). A notable stability of the basic chromosome numbers exists for individual genera within the family Cistaceae. The two sections differ not merely from the viewpoint of the basic chromosome numbers, but also by the presence of polyploidy (4x, 6x, 8x), known only in the evolutionary derived group of annuals, what is generally a rare phenomenon within this family. Karyological differences stress the morphological differences, existing in the plant habitus and character of biomorphs (perennials, heterophylly vs. annuals, homeophylly), in the form of basal leaves, presence of stipules, character and structure of the inflorescence, size of flowers and structure of gynoecium and seeds (see e.g. WILLKOMM 1857—1862). Among the representatives of the group of annuals cleistogamy was also stated, known in the family only within this group.

Upon division of the genus Tuberaria (DUNAL) SPACH into two genera it is necessary to retain the generic name in the sense of its type for one of included genera. Index Nominum Genericorum (FARR et al. 1979) gives the type of this generic name as not having been determined till now; however, this does not correspond to my knowledge. LÖVE et KJELLQUIST (1964) and according to these authors also MARKOVA (1975) give Cistus Tuberaria L. (= Tuberaria vulgaris WILLK., the correct name of which species is T. lignosa (TWEET) SAM.) as the type species of the genus Tuberaria (DUNAL) SPACH. This typification is fully justified, with respect to the fact, that the generic name Tuberaria was directly derived from the specific (substantive) epithet of the pertinent species — Cistus Tuberaria L., firstly as a name of a section — Helianthemum sect. Tuberaria DUNAL 1824, on which later the generic name Tuberaria(DUNAL 1824) SPACH 1836 was based. DUNAL (in DC. Prodr. Syst. Natur. Regni Vegetab. 1 : 270, 1824) included in his sect. Tuberaria the species Helianthemum Tuberaria (L.) MILL. and the name Cistus
**Tuberaria** L. is given also in the synonymy of one of the two species accepted and illegitimately renamed by SPACH within the genus — *Tuberaria annua*, *T. perennis* (= *Cistus Tuberaria* L.). SPACH based his genus fully on the DUNAL's section *Helianthemum* sect. *Tuberaria* and it is therefore necessary to get the typification of that generic name from the species contents of DUNAL's section (and not to accept any of the illegitimate names by SPACH as the type of the generic name). The above mentioned typification of *Tuberaria* (DUNAL) SPACH is consistent with the division of this genus into two sections by WILLKOMM (1857—1862) in his monograph of *Cistaceae*, where *Cistus Tuberaria* L. was included in the type section "Eutuberaria", containing in addition to it only one other species — *T. globularifolia* (LAM.) WILLK. At the taxonomic division of this genus, the generic name *Tuberaria* has to be retained for the taxonomic group including *Cistus Tuberaria* L., i.e. for the group of perennial species distinct by their large flowers. The group contains only 3—4 species.

For the second section of WILLKOMM's classification LöVE et KJELLQUIST (1964 : 76—77) and MARKOVA (1975) used the generic name *Xolanthes* RAfIN. 1838. According to LöVE et KJELLQUIST (1964) the type species of the RAfINESQUE's genus is *Tuberaria guttata* (L.) Fourr., a basic species of the group of annual members of *Tuberaria*. The publication of this generic name in 1838 was, however, preceded by a publication of its earlier orthographic variant — *Xolant'ha* RAfIN. (Carrateri Alcune Nuovi Gen. Nuovi Spec. Animal. Piante Sicilia 2 : 73, 1810); for the typification of that RAfINESQUE's generic name it is necessary to get out from its first publication place. According to MERRILL (1949) the description by RAfINESQUE from 1810 corresponds to the description of *Helianthemum* MILL. 1754 and only one species of the genus *Xolanta* — *X. racemosa* RAfIN. 1810 is according to all following authors taxonomically identical with the species *Helianthemum pilosum* (L.) BENTH., a member of the *H. apenninum* agg., without any relationships to the genus *Tuberaria* s. l. Only at the later use of this generic name in his work "Sylva Tellur." from 1838 (in an orthographic change), RAfINESQUE added *Cistus guttatus* L. to his genus as its second species; the original species (and type) of this generic name remained, however, also henceforth included. Therefore it is not possible to use the name *Xolanthes* RAfIN. 1838 for the genus accepted here by the present author. As no generic name is now available, a new one — *Therocistus* — is proposed here with the following diagnostic (differential) brief description:

**Therocistus** HoluB, genus novum

**Etymol.:** theros = annual, with respect to the important characteristic feature of members of the genus; *Cistus* originally the species of the genus were classified to the genus *Cistus* L.


**Diagn.:** Plantae annuae; folii versum caulis apicum sensim decrescentibus vel caulinis quam basalia majoribus, basalibus subsessilibus, valde caducis, superioribus plerumque stipulatis, saepé alternantibus; inflorescentiis juvenilibus clare scorpioideis, vulgo ebracteatis; floribus mediochrius vel parvis; petalis tantum maxime usque 10 mm longis; ovario sessili, stylo nullo, stigmatem applanato; embryone curvato. X = 6 in serie polyploidea.

**Typus:** *Cistus guttatus* L. 1753.
The genus includes 10—12 species distributed mostly in the Mediterranean area and transgressing from there only to some neighbouring territories, e. g. to the western Europe (as Th. guttatus). The majority of species are centered by their distribution to the West Mediterranean area. With exception of only one species — Th. echioides — all other species are members of one species aggregate — Th. guttatus agg., and are very closely allied to one another.

Corrections to the Index Kewensis

On studying some bibliographical and nomenclatural problems, some imperfections were found in the basic catalogue of species names of flowering plants — Index Kewensis. The reference to the name Helianthemum pourretii is fully missing; the same holds for the correct quotation of the publication place of Helianthemum piloselloides — this name is given there only from a secondary source. The place of publication for Tuberaria glomerata should be corrected regarding the page (80 should be given instead of 71). It is necessary to add the name Tunica haynaldiana F. N. Williams Journ. Bot. (London) 28 : 197, 1890, which represents the first validly published name of this taxon; earlier names Gypsophila haynaldiana Janka and Tunica haynaldiana (Janka) Nyman, included in the Index Kewensis, are only invalidly published names (nomina nuda). The correct quotations of the above mentioned missing names are given in the following Appendix at the relevant newly proposed nomenclatural combinations (Rhodax pourretii, Rh. piloselloides).

APPENDIX

New nomenclatural combinations


Alsine cupaniana Jord. et FOURR. subsp. postii (HOLMOE) HOLUB, comb. nova. — Bas.: Stellaria media (L.) VILL. subsp. postii HOLMOE, Bergens Mus. Skrifter, Ser. 2, 1/2 : 70, Bergen 1914.


Otites cuneifolia RAPIN, subsp. arenaria (PODP.) HOLUB, status novus et comb. nova. — Bas.: Silene pseudo-otites BESSER var. arenaria PODPÉRA, Pubbl. Fac. Sci. Univ. Masaryk 1922/12 : 20, Brno 1922. [Syn.: Silene otites SM. subsp. arenaria PODP. olim in sched.]

Otites velebitica (DEGEN) HOLUB, status novus et comb. nova. — Bas.: Silene otites (L.) SM. subsp. velebitica DEGEN Fl. Velebit. 2 : 83, Budapest 1937.


Rhodax nebrodensis (HELD ap. GUS.) HOLUB, comb. nova. — Bas.: Helianthemum nebrodensis HELDREICH apud GUSSONE Fl. Sicul. Syn. 2 : 18, Napoli 1844 (an 1843?).


Therocistus acuminatus (Viv.) Holub, comb. nova. — Bas.: Cistus acuminatus Viviani Annal. Bot. 1/2 : 172, tab. 25, fig. 1, Genuae 1804; Fl. Ital. Fragm. 1 : 13, tab. 14, fig. 1, Genuae 1808.


Therocistus guttatus (L.) Holub subsp. littoralis (Rouy et Fouc.) Holub, status novus et comb. nova. — Bas.: Helianthemum guttatum Mill. forme [proles] littorale Rouy et Foucaud Fl. France 2 : 288, Asnières et Rochefort 1895.

Therocistus inconspicuus (Thibaud ap. Pers.) Holub, comb. nova. — Bas.: Helianthemum inconspicuum Thibaud apud Persoon Syn. Plant. 2 : 77, Parisiis et Tubingae 1806 (′1807′).


SUMMARY

The paper contains general and special comments on the first volume of the important work "Med-Checklist". Among the general problems the following four questions are briefly mentioned: 1. a rather broad taxonomic circumscription of some genera (an unnatural conception of Lycopeodium and Silene); 2. problems of giving synonymy (sometimes the names important at different but also possible classification approaches are missing; basionyms of names following from such possible classifications are absent; mentioning the names asserting the priority of epithets in the respective rank, especially for subspecies, would be very useful); 3. problems of giving the author-ship to the plant names taken over by the publishing author from another author (cases as "Kitaibel ex Schultz"'); 4. superfluous changes in the orthography of the name of the author publishing in the Latin alphabet (the case Čhačev vs. Tchiatcheff).

Special comments on single taxa contain a description of a new genus Therocistus Holub, a segregant of Tuberaria (DuNal) Spach from the Cistaceae, described on the basis of morphological and karyological differences (with 11 species and one subspecies). The nomenclature of "Cerastium fontanum subsp. macrocarpum" is briefly discussed. Its correct name in the rank of species is Cerastium lucorum (Schur) MösCHL, in the rank of subspecies C. fontanum Baumg. subsp. lucorum (Schur) Soó. New taxonomic reclassifications are proposed in Dryopteris affinis.
ag. (erection of subsp. stillupennis to the rank of species) and Silene otites ag. (after exclusion of S. pseudotites from the species S. otites a new name had to be proposed for the erroneously named subspecies). Three overlooked names are mentioned: Alnus alnobetula (EHRH.) K. KOCH (= A. viridis), Atriplex sagittata BORKH. (= A. nitens SCHKUHR) and Dianthus sylvestreum HEUFFEL (= D. giganteiformis BORKH.). Nomenclatural problems of Spergula sativa (an illegitimate name) are discussed. Some necessary changes in names of several taxa regarding the data on their authorship or on quotation of their publication places are given (both for correct names and synonyms in species and subspecies ranks); such comments are submitted to the Appendix, among them 12 for members of the newly circumscribed authorship or on quotation of their publication places are given (both for correct names and synonyms in species and subspecies ranks); such comments are submitted to the names referring to or given under the following species: Amaranthus blitum, A. cruentus, Cerastium batonicum, Dianthus barbatus, Petrhoragia illyrica, Salsola kali and Suaeda maritima. Particular attention had to be given especially to the problems of the name Petrhoragia illyrica subsp. haynaldiana. From the bibliographic problems two were submitted: the separate publication of DOMIN's "Enumeratio" in 1935 (mentioned at Campanula sibirica) and the successive edition of DOSTAL's Květena ČSR in the years 1948—1950 (mentioned at Amaranthus). Four cases for correction of the data in the Index Kewensis are also added.

As the result of the (mostly earlier) taxonomic study, 36 new nomenclatural combinations are proposed in the Appendix, among them 12 for members of the newly described genus Thero­cistus, 8 with Rhodax, 3 with Locca, 2 each with Cynoglossis, Dryopteris and Otites, as well as single combinations with Aegonychon, Al sine, Buglossoides, Duschekia, Lithodora, Obara and Petrhoragia. With exclusion of the name Duschekia alnobetula subsp. suavedens, all other proposals of changes in names follow from taxonomic reasons. Twenty-seven cases refer to reclassifications to another genus with retaining the rank of the taxon and seven cases refer to reclassifications to another genus combined with changing the rank of the relevant taxon.
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