Euro Med Notulae, 1

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Notulae ad floram euro-mediterraneam pertinentes No. 16

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Euro+Med Notulae, 1

Abstract

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This is the first of a series of miscellaneous contributions, by various authors, where hitherto unpublished data relevant to the Euro+Med (or Sisyphus) Project are presented. Apart from the introductory notice that outlines the Euro+Med Project and explains the abbreviations used for the geographical territories as defined for the Project's purposes, it is almost entirely devoted to the *Compositae* family. It includes new country and area records for *Artemisia, Bellis, Calendula, Delairea, Erigeron, Gazania, Hieracium, Onopordum, Senecio, Tanacetum* and *Volutaria* taxa, and the validation of names in the genera *Carduus, Caucasalia, Centaurea, Cyanus, Erigeron, Galatella, Hieracium, Klasea, Pojarkovia, Psephellus, Rhaponticoides, Rhaponticum, Senecio, Solidago, Symphyotrichum* and *Tephroseris*. A single entry (a new name in *Omphalodes*) concerns *Boraginaceae*.

Notice

The Euro+Med Project, initially and perhaps more aptly named Sisyphus Project at the suggestion of its co-founder Vernon Heywood, is best known for Euro+Med PlantBase, its main – forthcoming – offspin: essentially a Web-based inventory of the wild vascular flora of the Euro-Mediterranean region, with names that are correct under a recommended taxonomy, extensive synonymy, and source-referenced distribution data.

After an initial EU-funded three-years phase, during which the basic data for the project were assembled and the required software was written, the Project is now run by a small but active editorial group comprising Santiago Castroviejo (Madrid), Werner Greuter (Berlin), Vernon Heywood, Stephen Jury (both Reading), Karol Marhold (Bratislava), Pertti Uotila (Helsinki) and Benito Valdés (Sevilla). The pro tempore Secretariat has moved to Berlin where it is taken care of by Eckhard von Raab-Straube. The Biodiversity Informatics Department at Berlin-Dahlem, assisted by the Dipartimento di Scienze Botaniche of Palermo University, provides computational backing and the design of the Web interface. A network of expert advisers covering the whole Euro-Mediterranean area has been set up, and advice by taxonomic specialists is being sought.

Full details of the complex and multi-layered Euro+Med Project, giving credit to the countless persons and institutions involved, will be given elsewhere. Here, some basic notions are provided, to enable the reader to understand the scope and format of the data.

In its basic approach and data content, Euro+Med shares many features with the Med-Checklist Project. Indeed, the format of the present new Notulae series closely reflects that of the Med-Checklist Notulae, of which 23 instalments have been published in this same journal during the last quarter century. However, whereas Med-Checklist's primary output were printed books, Euro+Med will for the most part consist of electronic data accessible online (not precluding the selective production of hard copy). Therefore a prominent feature of Med-Checklist, to record a published source for all included data, can be achieved to an even fuller and more immediate extent through Euro+Med.

There is a major difference between Euro+Med and Med-Checklist in geographical coverage, which is much wider, and the breakdown into individual territories, that goes to greater detail. The total area covered encompasses the whole of Europe, all Mediterranean border countries, the Atlantic Islands of Macaronesia (excluding the Cape Verde Islands) and Caucasia. With a few (perhaps temporary) exceptions such as the Principality of Monaco, the Republic of San Marino and Vatican City, all politically independent units are treated separately (allowing for the continued recognition of an integrated classificatory level in some cases). This makes it necessary to provide a list of recognised territories and their abbreviations, which is as follows.

Ab Azerbaijan:
- Ab(A) core Azerbaijan
- Ab(N) Nakhichevan

AE East Aegean Islands:
- AE(G) Greek East Aegean islands, incl. Kastellorizo
- AE(T) Bozcaada Island

Ag Algeria

Al Albania

Ar Armenia

Au Austria, with Liechtenstein:
- Au(A) Austria
- Au(L) Liechtenstein

Az Azores:
- Az(C) Corvo
- Az(F) Faial
- Az(G) Graciosa
- Az(J) São Jorge
- Az(L) Flores
- Az(M) São Miguel
- Az(P) Pico
- Az(S) Santa Maria
- Az(T) Terceira

Be Belgium, with Luxemburg:
- Be(B) Belgium
- Be(L) Luxemburg

BH Bosnia-Herzegovina

BL Baleares:
- BL(I) Ibiza, incl. Formentera
- BL(M) Mallorca
- BL(N) Menorca

Br United Kingdom (excl. Channel Islands and Hb(N))

Bu Bulgaria

By Belarus

Ca Canary Islands:
- Ca(C) Gran Canaria
- Ca(F) Fuerteventura, incl. Lobos
- Ca(G) Gomera
- Ca(H) Hierro
- Ca(L) Lanzarote and adjacent islands
- Ca(P) La Palma
- Ca(T) Tenerife

Co Corsica

Cr Crete and Karpathos island groups

Cs Czech Republic

Ct Croatia

Cy Cyprus

Da Denmark (without Fa)

Eg Egypt (without Sn)

Es Estonia

Fa Faeroe Islands

Fe Finland

Ga France, with Channel Islands and Monaco (without Co)

Ge Germany

Gg Georgia

Gr Greece (without Cr and AE(G))

Hb Ireland with N Ireland:
- Hb(E) Ireland
- Hb(N) northern Ireland

He Switzerland

Hs Spain, with Gibraltar and Andorra (without Bl and Ca):
- Hs(A) Andorra
- Hs(G) Gibraltar
- Hs(S) mainland Spain

Ho Netherlands

Hu Hungary
Ir Israel, with the Palestinian Authority territories
Is Iceland
It Italy, with San Marino and Vatican City (without Sa and Si(S))
Jo Jordan
La Latvia
Le Lebanon
Li Libya
Lt Lithuania
Lu Portugal (without Az, Md, and Sg)
Ma Morocco, with Spanish territories
Mk The Former Yugoslav Republic of Makedonija
Md Madeira:
Md(D) Desertas
Md(M) Madeira
Md(P) Porto Santo
Mo Moldova
No Norway (without Sb)
Po Poland
Rf European part of the Russian Federation:
Rf(A) Novaya Zemla and Franz Joseph Land
Rf(C) C European Russia, comprising Kostroma, Tver, Yaroslavl, Vladimir, Nizhniy Novgorod, Smolensk, Moscow, Ryazan, Mordovia, Chuvashia, Ulyanovsk, Kaluga, Tula, Lipetsk, Tambov, Penza, Bryansk, Orlov, Kursk Voronezh, Belgorod
Rf(CS) Russian Caucasia
Rf(E) E European Russia, comprising Vyatka, Perm, Udmurtia, Bashkortostan, Tatarstan, Samara, Orenburg
Rf(K) Kaliningrad Region
Rf(N) N European Russia, comprising Arkhangelskaya, Karelia, Komi, Murmansk, Vologda
Rf(NW) NW European Russia, comprising Novgorod, Pskov, St Petersburg
Rf(S) S European Russia, comprising Saratov, Volgograd, Astrakhan, Rostov, Kalmykiya
Rm Romania
Sa Sardinia
Sb Svalbard: Spitsbergen, Björnöya and Jan Mayen
Sg Salvage Islands
Si Sicily, with Malta:
Si(M) Malta
Si(S) Sicily and surrounding islands
Sk Slovakia
Sl Slovenia
SM Serbia & Montenegro:
SM(M) Montenegro
SM(S) Serbia
Sn Sinai
Su Sweden
Sy Syria
Tn Tunisia
Tu Turkey (without AE(T)):
Tu(A) Asiatic Turkey (Anatolia)
Tu(E) Turkey-in-Europe, incl. Gökçeada
Uk Ukraine:
Uk(K) Crimea
Uk(U) Non-Crimean Ukraine

Note: Same as for Flora Europaea and Med-Checklist, the following areas are not considered as forming part of the Euro+Med area of coverage: Greenland (Denmark), Kazakhstan, the British, French and Portuguese overseas territories, Gebel Elba (partly in Egypt), Gebel Uweinat (partly in Egypt and Libya), Tibesti (partly in Libya) and the former Spanish Sahara (Morocco). None of the above, however, implies any judgement with respect to the juridic status of the countries, territories or zones concerned, their authorities, or their frontiers or limits.

Apart from the above divisions and notations, the following have been used in Flora Europaea (FE) and/or Med-Checklist (MC) and are still needed to accommodate unprecise records; or have been newly created for the same purpose:

Bt Baltic countries (Es + La + Lt + Rf(K)) – New
Cc Caucasia (Ab + Ar + Gg + Rf(CS)) – New
Cz Former Czechoslovakia (Cs + Sk) – FE
IJ Palestine (Ir + Jo) – MC
JU Former Yugoslavia (BH + Ct + Sl + Mk + SM) – FE, MC
LS Lebanon and Syria (Le + Sy) – MC
Me Malta, with Gozo (Si(M)) – MC
Rk Crimea (same as Uk(K)) – MC
Rs European part of former Soviet Union (By + Es + La + Lt + Mo + Rf + Uk) – FE; the Fe subdivisions of Rs, being incongruent with the new divisions, are no longer of use (except for Rs(B) = Bt and Rs(K) = Uk(K))

The conventions (other than the geographical notations) here used are those of Med-Checklist and are fully explained in the preface to that work (Greuter & al., Med-Checklist 4: xii-xiii. 1989). This concerns, in particular, the indication of status and presence, which are as follows:

+	present as native	D	doubtfully native
–	absent but reported in error	E	(presumably) extinct
?	doubtfully present	N	naturalised
A	casual alien	P	doubtfully naturalised ("problematic")

The Notulae provide on one hand the opportunity to validate new scientific names and combinations that are required under the recommended taxonomic classification but do not yet exist. On the other hand, they permit to document distributional data that do not yet exist in print – both new records and the correction of old erroneous ones. The author of each entry is either named at its end or, in the case of uncommented new combinations, is acknowledged as the author of the combination.

The following have contributed entries to the present instalment: M. V. Aghababian, Erevan; J. Chrtek, Průhonice; G. Gottschlich, Tübingen; W. Greuter, Berlin; P. Hein, Berlin; D. Jeanmonod, Genève; T. Karlsson, Stockholm; M. Niketić, Beograd; L. Sáez, Barcelona; A. N. Sennikov, St Petersburg; G. Tomovic, Beograd; T. Tyler, Lund; G. Wagenitz, Göttingen; and A. V. Yena, Simferopol.

Boraginaceae

Omphalodes verna subsp. ***graeca*** Greuter, **nom. nov.** ≡ *Omphalodes runemarkii* Strid & Kit Tan in Phytol. Balcan. 11: 69. 2005

The name here validated has been in use now for almost 20 years, yet Strid & Tan (l.c.) when describing their new species chose to ignore it. So far, I refrained from publishing it as the material at my disposal was scant and would not have provided a really satisfactory type. This problem is now solved (Strid, Tan and Vold collected abundant material and are distributing numerous isotypes), but a name is still needed for those who, like myself, prefer to consider the new taxon as a subspecies of *Omphalodes verna.* I appreciate the fact that Strid and Tan have spared me the trouble of writing my own diagnosis.

To complete Strid & Tan's (l.c.) story: in 1985, three years after Runemark first collected the new Greek *Omphalodes* (which remained buried in his herbarium thereafter) and quite independently, W. Strasser found it again in the same locality and published his find, first as an unnamed, presumably new *Omphalodes* species (Strasser, Bot. Stud. 1985 Südpeloponnes: 6. 1985, with drawing of a basal leaf), and subsequently as "*Omphalodes verna* Moench ssp. *graeca* Greut. ssp. nova" (Strasser, Ost-Peloponnes, Bot. Stud. 1986: 9. 1986, with a drawing of a flowering stem). In both the German and English edition of Strasser's illustrated guide to the Peloponnese flora (Strasser, Pfl. Peloponnes: 254. 1997; Pl. Peloponnese: 282. [1999]) a whole plant of *"Omphalodes verna graeca"* is shown. W. Greuter

Compositae

A majority of the following new names and combinations became necessary when the initial Euro+Med draft list was expanded to provide complete coverage of the Caucasus countries. The need for these names follows from the generic concepts and names adopted for Euro+Med purposes, which were explained and justified in an earlier series of papers (for the *Cardueae* and *Senecioneae,* see Greuter in Willdenowia 33: 49-61 and 245-250. 2003). Naturally, the arguments provided there are not now repeated. W. Greuter

Artemisia codonocephala Diels [= *Artemisia vulgaris* var. *umbrosa* Besser]

A **Uk(K):** Simferopol, Kimovskiy line, along the roadside between blocks and on soil left after road construction, 10.10.2004, *Yena* (CSAU, KW; *A. umbrosa* (Besser) Pamp., det. Mosyakin); Alušta, flood-land of Demerdžee river, 28.10.2004, *Yena* (CSAU).

A Far Eastern representative of the *Artemisia vulgaris* aggregate, first found in the Crimea in 2004, whereas the closely related *A. verlotiorum* Lamotte is known to occur there since 1929 (Mosyakin in Ukrajins'k. Bot. Žurn. 47(4): 10-11. 1990). In the two known localities, in the centre and south of the Crimean Peninsula, the species forms small but dense populations. A. V. Yena

Bellis pappulosa DC.

– **Co:** The presence of this taxon in Corsica (as given in Jovet & al., Fl. France, Suppl. 6: 722. 1985) apparently rests on a single old record (Restonica valley: Foucaud & Simon, Trois Semaines Herbor. Corse: 91. 1898). As no one else has seen this plant in the field and no herbarium specimen could be traced, it is better considered as absent from Corsica. D. Jeanmonod

Calendula officinalis L.

A **Bl(M):** Cultivated as an ornamental and casual alien in Mallorca. L. Sáez

Carduus malyi Greuter, **nom. nov.** ≡ *Carduus illyricus* K. Malý in Bull. Inst. Jard. Bot. Univ. Beograd 2: 57. 1931 [non (L.) Baill. 1882].

Malý's species, published too late for inclusion in Hayek's *Prodromus,* was overlooked when the Flora Europaea treatment was written. It was, however, accepted by Bjelčić (in Beck, Fl. Bosnae 4(4): 97. 1983). In the original publication, which includes a good photograph of the plant, Malý discusses how it differs from the related *Carduus carduelis* (L.) Gren. *C. malyi* appears to extend from Bosna into Croatia, where it has been misnamed *C. carlinifolius* Lam. (Nikolić in Nat. Croat. 9, Suppl. 1: 74. 2000). W. Greuter

Carduus nutans subsp. ***maurus*** (Emb. & Maire) Greuter, **comb. nov.** ≡ *Carduus platypus* var. *maurus* Emb. & Maire, Pl. Marocc. Nov. 2: 6. 1929 ≡ *Carduus platypus* subsp. *maurus* (Emb. & Maire) Jahand. & Maire, Cat. Pl. Maroc: 797. 1934 [= *Carduus nutans* subsp. *maroccanus* Arènes in Mém. Mus. Natl. Hist. Nat. 24: 239. 1949 ≡ *Carduus maroccanus* (Arènes) Kazmi in Mitt. Bot. Staatssamml. München 5: 347. 1964].

Caucasalia pontica (K. Koch) Greuter, **comb. nov.** ≡ *Adenostyles pontica* K. Koch in Linnaea 23: 696. 1851 [= *Senecio platyphylloides* Sommier & Levier in Trudy Imp. S.-Peterburgsk. Bot. Sada 12: 153. 1892 ≡ *Caucasalia platyphylloides* (Sommier & Levier) B. Nord. in Pl. Syst. Evol. 106: 25. 1997].

? **Tu(A):** *Adenostyles pontica* and *Senecio platyphylloides* were first synonymised by Nordenstam (in Pl. Syst. Evol. 106: 26-27. 1997) who, however, failed to realise the nomenclatural implications of his conclusion. Koch did not mention his collecting locality, but stated the general area, the mountains of Pontus ("im pontischen Gebirge"). According to Lack (in Notes Roy. Bot. Gard. Edinburgh 37: 89. 1978) this area is entirely situated in Turkey, A7 Trabzon to A8 Çoruh, where the species has not been collected since, but ought to be looked for. W. Greuter

Centaurea alba subsp. ***ciliata*** (O. Bolòs & Vigo) Greuter, **comb. & stat. nov.** ≡ *Centaurea alba* var. *ciliata* O. Bolòs & Vigo in Collect. Bot. (Barcelona) 17: 92. 1988.

Centaurea kochiana (Holub) Greuter, **comb. nov.** ≡ *Centaurea olympica* Wagenitz in Willdenowia 6: 480. 1972 [non (DC.) K. Koch 1851] ≡ *Acosta kochiana* Holub in Preslia 45: 142. 1973.

Koch (in Linnaea 24: 432. 1851) explicitly based his *Centaurea olympica* on *C. paniculata* var. *olympica* DC. (Prodr. 6: 584. 1838), which belongs to the ill understood complex of *C. cuneifolia* Sm. However, he described a different plant, collected by Thirke near Bursa. Wagenitz (l.c.) designated the Thirke specimen as the type of *C. olympica*, explicitly excluded the Candollean element and thus, thanks to his full and direct reference to Koch's Latin description, in effect validly published a later homonym for a previously unnamed species. Holub (l.c.), when transferring that species to *Acosta,* was free to give it an epithet of his choice. He opted for discarding *olympica* (available in *Acosta*) and gave preference to a new epithet that is not preoccupied in *Centaurea,* which is why his *Acosta kochiana* now provides the basionym for the name I consider to be correct. W. Greuter

Centaurea oranensis Greuter & M. V. Agab., **nom. nov.** ≡ *Centaurea acaulis* subsp. *boissieri* Maire in Bull. Soc. Hist. Nat. Afrique N. 25: 305. 1934.

The N African *Centaurea acaulis* L. (Sp. Pl.: 914. 1753) is usually considered to comprise two subspecies: subsp. *balansae* (Boiss. & Reut.) Murb. (in Acta Univ. Lund., sect. 2, 33(12): 108. 1897) and subsp. *boissieri*. The former is widespread in Tunisia (we have seen several specimens) from where it extends westward into NE Algeria (Constantine province), whereas the latter has its main distribution in NW Algeria (Oran province) and just reaches NE Morocco. [There is a third related species in the Moroccan Middle Atlas, *C. litardierei* Jahand. & Maire, which we shall not consider here.]

There are striking differences between the two taxa, as Boissier (Diagn. Pl. Orient., ser. 2, 3: 82-83. 1856) pointed out in the protologue of *Centaurea balansae* Boiss. & Reut. In the latter, the distal portion of the outer and middle involucral bracts is continuous with the basal portion, broadly triangular, flat, green with darker longitudinal veins, and has a membranous border fringed with moderately dense cilia of varying length. In the plant from Oran, which Boissier took to be the genuine *C. acaulis,* the distal bract portion is set off against the basal part and is abruptly expanded into a blackish, broadly ovate, concave ("hooded") structure fringed with very dense, long and stiff setae. The apical spine is variably developed, at least in the eastern taxon it is occasionally lacking. The differences between the two taxa are so striking that we do not hesitate to consider them as species, as did Boissier and, after him, Jahandiez & Maire (Cat. Pl. Maroc: 811. 1934).

Botanists have disagreed in their interpretation of Linnaeus's species, but apparently, no one so far has considered his original material. Boissier considered Balansa's specimen from Oran as typical *Centaurea acaulis,* on the faith of Linnaeus's (uninformative) diagnostic phrase. In this he was followed by Murbeck (l.c.). Maire (in Bull. Soc. Hist. Nat. Afrique N. 25: 305. 1934), on the contrary, took *C. balansae* to be the true *C. acaulis* of Desfontaines (and implicitly Linnaeus). His new *C. acaulis* subsp. *boissieri* was proposed as a substitute name for *C. acaulis* [sensu] Boiss. and was validated solely by Boissier's short diagnostic statement setting off *C. acaulis* against *C. balansae*. The type of Maire's name is Balansa's specimen of *"Centaurea acaulis"* from Oran, of which we have studied a duplicate (B).

In the protologue of *Centaurea acaulis* Linnaeus's own diagnostic phrase is followed by two synonym entries. The first, from Vaillant, is cited with a question mark – appropriately so, as it pertains to a different species, *C. pumilio* L. (Greuter & Aghababian in Taxon 54: 157, 170. 2005); no figure or specimen seen by Linnaeus is associated with it. The second is from Shaw and includes citation of an illustration; that figure is the only extant original element for the name (Jarvis, pers. comm.), and perhaps the sole item ever seen by Linnaeus (his phrase may have been drawn from it entirely). We here designate it as the lectotype of *Centaurea acaulis:* the engraving of

"143. Jacea &c. sive Toffs Arabum" in Shaw (Travels Obs. Barbary & Levant: 463. 1738). The printed figure does not show much detail, but resembles the eastern taxon more closely than the western one. Thanks to Jarvis's intercession and the assistance of Ms Serena Marner we received a photograph of the surviving Shaw specimen of the illustrated plant, kept in the Fielding-Druce Herbarium (OXF): it shows unarmed bracts with a fringed, green, non-expanded apical portion, which confirms our interpretation. For better security, we designate an epitype to interpret the lectotype figure: the specimen *Vogt 13511 & Oberprieler 7816* (B) collected in Tunisia, "Governorat de Siliana: Dorsale Tunisienne, Forêt de Kesra, track n° 764 between Kesra and Djebel Balloula, c. 3 km NE Kesra, ... alt. 1030-1100 m ... 35°49.675'N – 09°21.470'E", on 18.5.1994. Its unarmed bracts match those in the Shaw specimen and illustration. W. Greuter & M. Aghababian

Centaurea phrygia subsp. ***abnormis*** (Czerep.) Greuter, **comb. nov.** ≡ *Centaurea abnormis* Czerep. in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 21: 394. 1960 ≡ *Centaurea pseudophrygia* subsp. *abnormis* (Czerep.) Mikheev in Bot. Žurn. 84(9): 106. 1999.

Centaurea resupinata subsp. ***saguntina*** (Mateo & M. B. Crespo) Greuter, **comb. & stat. nov.** ≡ *Centaurea saguntina* Mateo & M. B. Crespo in Bol. Soc. Brot., ser. 2, 61: 262. 1988.

Cyanus cheiranthifolius subsp. ***willdenowii*** (Czerep.) Greuter, **comb. nov.** ≡ *Centaurea willdenowii* Czerep. in Komarov, Fl. SSSR 28: 608. 1963 ≡ *Cyanus willdenowii* (Czerep.) Soják in Cas. Nár. Muz., Odd. Prír. 140: 132. 1972 ≡ *Centaurea cheiranthifolia* subsp. *willdenowii* (Czerep.) Mikheev in Bot. Žurn. 84(9): 104. 1999.

Cyanus triumfettii subsp. ***axillaris*** (Čelak.) Greuter, **comb. nov.** ≡ *Jacea graminifolia* Lam., Fl. Franç. 3: 638. 1779 ≡ *Centaurea axillaris* Willd., Sp. Pl. 3: 2290. 1803, nom. illeg. ≡ *Centaurea montana* subsp. *axillaris* Čelak., Prodr. Fl. Böhmen: 252. 1871 ≡ *Centaurea triumfettii* subsp. *axillaris* (Čelak.) Stef. & T. Georgiev in Spis. Bulg. Akad. Nauk. 44: 160. 1931 [*"Centaurea triumfettii* subsp. *triumfettii"* sensu Dostál in Fl. Eur. et auct. mult. (non *Centaurea triumfettii* All. 1773 s. str.)].

Cyanus triumfettii subsp. ***nanus*** (Ten.) Greuter, **comb. nov.** ≡ *Centaurea axillaris* var. *nana* Ten., Syll. Pl. Fl. Neapol.: 447. 1831 [*"Centaurea cana"* sensu Pignatti, Fl. Italia 3: 206. 1982 (non Sm. 1813)].

Delairea odorata Lem. [= *Senecio mikanioides* Walp.]

? **Bl:** According to Bolòs & Vigo (Fl. Països Catal. 3: 855. 1996), *Senecio mikanioides* is cultivated as an ornamental and rarely subspontaneous in the Balearic Islands, but I cannot confirm that it escapes from cultivation there. L. Sáez

Erigeron acris subsp. ***botschantzevii*** Greuter, **nom. nov.** ≡ *Erigeron pseudoelongatus* Botsch. in Komarov, Fl. SSSR 25: 587. 1959 [non A. W. Hill 1926].

Erigeron annuus (L.) Desf. subsp. ***annuus***

N **Uk(K)**: Simferopol, Derjuginoj Str., along the road among weeds, 17.9.2001, *Yena* (CSAU); suburb 10 km N of Simferopol, along the railway, 8.10.2004, *Yena* (CSAU); Simferopol railway station, 2.6.2005, *Yena* (CSAU).

This North American species *Erigeron annuus* is known in the Ukraine since 1895 (Protopopova, Sinantr. Fl. Ukrainy: 181. 1991), but not so far in the very south of the country. *E. annuus* subsp. *septentrionalis* (Fernald & Wiegand) Wagenitz was first found by the author in the Crimea in 2001 (Yena in Mišnev & Oliferov, Ekosist. Kryma 13: 8. 2003, as *Phalacroloma annuum* subsp. *septentrionale* (Fernald & Wiegand)

Adema). The first stand, with c. 100 individual plants, was noted on a roadside in the northeastern outskirts of Simferopol, in the centre of the Crimean Peninsula. As the invasion continues successfully, scattered individuals are now growing in many parts of the city. One of the roadside stands increased fivefold in numbers from 2004 to 2005. The plants grow along streets and in mesic waste places among other weeds. Some show the characters of *E. annuus* subsp. *annuus,* others match subsp. *septentrionalis*, and regrowth after cutting shows intermediate features. In Crimea the plants are biennial. A. V. Yena

Erigeron floribundus (Kunth) Sch. Bip.

– **Bl:** Balearic records of this species should be neglected or disregarded as being probably referable to *Erigeron sumatrensis.* L. Sáez

Galatella linosyris subsp. ***fominii*** (Kem.-Nath.) Greuter, **comb. & stat. nov.** ≡ *Linosyris fominii* Kem.-Nath. in Vestn. Tiflissk. Bot. Sada 3-4: 142. 1927 ≡ *Crinitaria fominii* (Kem.-Nath.) Soják in Čas. Nár. Muz., Odd. Přír. 148(2): 77. 1980 ≡ *Crinitina fominii* (Kem.-Nath.) Soják in Zprávy Vlastiv. Mus. v Olomouci 215: 2. 1982 ≡ *Galatella fominii* (Kem.-Nath.) Czerep., Vasc. Pl. Russia & Adj. States: 59. 1995.

Gazania rigens (L.) Gaertn.

N **Bl(M), Bl(N):** Cultivated as an ornamental in both Mallorca and Menorca, and often naturalised in nearby areas. L. Sáez

Hieracium albopellitum (Zahn) Niketić, **comb. & stat. nov.** ≡ *Hieracium plumulosiforme* subsp. *albopellitum* Zahn in Engler, Pflanzenr. 77: 599. 1921.

Hieracium atratiforme Simonk.

– **Al:** Sell & West (in Tutin & al., Fl. Eur. 4: 394. 1976) give the distribution of *Hieracium atratiforme* and its group as "Al Rm". Romania is the ditio classica, whereas the occurrence in "Albania" refers to *H. atratiforme* var. *denticulatum* Rech. f. & Zahn, described from "Nordalbanien: Tal der Ločanska [i.e. Loćanska] Bistrica" (Zahn in Ascherson & Graebner, Syn. Mitteleur. Fl. 12(3): 679. 1938) – a locality that is situated in Serbia not Albania. M. Niketić & G. Tomović

Hieracium calophyllum R. Uechtr.

– **Ct:** The alleged occurrence of this species in Dalmatia (Hayek in Repert. Spec. Nov. Regni Veg. Beih. 30(2): 977. 1931) and hence Croatia (Plazibat in Nat. Croat. 9, Suppl. 1: 100. 2000) refers to its occurrence on Mt Orjen. That mountain was situated on the border between Montenegro and Croatia in the past, but the main massif is now completely outside of Croatia, as are all known localities of *Hieracium calophyllum* (see map by Niketić & al. in Bot. Chron. (Patras) 16: 38. 2003). M. Niketić

Hieracium canitiosum Malme
Hieracium cardiobasis (Zahn) Prain

– **Cs:** These species are present in Slovakia but not in the Czech Republic. Indications for the latter by Dostál (Nova Květena ČSSR: 1143. 1989; Vel'ký Kl'úc Určovanie Vyšš. Rastl.: 1184. 1992) are errors. J. Chrtek

Hieracium cataractarum Arv.-Touv. & Huter

? **Bl(M):** According to Bolòs & Vigo (Fl. Països Catal. 3: 1085. 1996), the *Hieracium aragonense* group is represented in Mallorca by *H. aragonense* subsp. *cataractarum* (Arv.-Touv. & Huter) Zahn. However, all Majorcan plants studied by me have involucral

bracts with numerous stellate hairs and glandular hairs, whereas in *H. cataractarum* the involucre is glabrous. On the basis of this feature the Majorcan plants are referable to *H. aragonense* Scheele s.str., as already stated by Duvigneaud (in Soc. Échange Pl. Vasc. Eur. Occid. Médit. 17, suppl.: 9. 1979, as subsp. *aragonense*), a taxon that according to Bolòs & Vigo (l.c.) would be restricted to the Spanish mainland. The presence of *H. cataractarum* in Mallorca is, at best, doubtful. L. Sáez

Hieracium contaminatum Wiinst.

N **Su:** If by "naturalised" one means plants with a tendency to spread to new areas even without renewed diaspore input from abroad, then at least some of the "park *Hieracia*" of Hylander (in Symb. Bot. Upsal. 7(1): 106-274. 1943) must be accepted as naturalised in Sweden (and probably in other Nordic countries, too). They certainly include *Hieracium contaminatum* and three other species mentioned below *(H. grandidens, H. grandifoliatum* and *H. scotostictum).* Several additional species also have been reported from sites where they may be naturalised. T. Tyler

Hieracium exotericum Boreau

– **Al:** Sell & West (in Tutin & al., Fl. Eur. 4: 400. 1976) list Albania among the countries in which *Hieracium exotericum* occurs, but "Al" is an obvious misprint for "Au" (the species is well known to occur in Austria and Liechtenstein). M. Niketić

Hieracium glabratum Willd.

– **Rm:** Sell & West (in Tutin & al., Fl. Eur. 4: 400. 1976) list Romania among the countries in which *Hieracium glabratum* occurs. However, the Romanian plants of the *H. glabratum* aggregate belong to a different taxon, *H. glabrescens* (F. W. Schultz) Murr (referred to by the illegitimate name *H. glabratiforme* Murr in Flora Europaea), whereas *H. glabratum* in the strict sense (*H. glabratum* subsp. *"eu-glabratum"* of Zahn in Ascherson & Graebner, Syn. Mitteleur. Fl. 12(2): 118. 1930) is not so far known from that country. M. Niketić

Hieracium glandulosodentatum R. Uechtr.

– **Sk, Uk:** This species, which I consider as distinct from the *Hieracium bocconei* aggregate, is endemic to the Czech and Polish portion of the Krkonoše Mts (the West Sudeten Mts). Indications of *H. bocconei* subsp. *glandulosodentatum* (R. Uechtr.) Zahn from Slovakia by Dostál (Nova Květena ČSSR: 1153. 1989; Vel'ký Kl'úc Určovanie Vyšš. Rastl.: 1194. 1992) and of *H. glandulosodentatum* from the Ukrainian Republic by Mosyakin & Fedoronchuk (Vasc. Pl. Ukraine Nomencl. Checklist: 116. 1999) are erroneous. J. Chrtek

Hieracium glaucinum subsp. ***brachypus*** (Zahn) O. Bolòs & Vigo

This is a very doubtful taxon. I was unable to find any plant of the *H. glaucinum* aggregate in the locality given in the protologue ("Puig mayor de Torrella"). The study of the type, if traced, is necessary for a correct interpretation of this taxon. L. Sáez

Hieracium grandidens Dahlst.

N **Su:** See the note under *Hieracium contaminatum*. T. Tyler

Hieracium grandifoliatum Dahlst.

N **Su:** See the note under *Hieracium contaminatum*. T. Tyler

Hieracium gymnocephalum Pant.

– **Ct:** The alleged occurrence of *Hieracium gymnocephalum* in Dalmatia (Hayek in Repert. Spec. Nov. Regni Veg. Beih. 30(2): 967. 1931, with var. *gymnocephalum* and var.

laxipellitum (Zahn) Hayek) and hence Croatia (Plazibat in Nat. Croat. 9, Suppl. 1: 101. 2000) refers to its occurrence on Mt Orjen. That mountain was situated on the border between Montenegro and Croatia in the past, but the main massif is now completely outside of Croatia, as are all known localities of the species. M. Niketić

Hieracium jablonicense Woł.

– **Au:** Sell & West (in Tutin & al., Fl. Eur. 4: 379. 1976) list Austria among the countries in which *Hieracium glabratum* occurs, while Austrian Floras do not refer to it. The record is presumably due to a misunderstanding: the locality "Steiermark: Bachergebirge [i.e. Mt Pohorje] ob Rotwein", mentioned by Zahn (in Ascherson & Graebner, Syn. Mitteleur. Fl. 12(2): 775. 1935), now belongs to Slovenia, not to Austrian Styria. M. Niketić

Hieracium jurassicum Griseb.

– **Rm:** Sell & West (in Tutin & al., Fl. Eur. 4: 404. 1976) list Romania among the countries in which *Hieracium juranum* Fr. [non Rapin], i.e. *H. jurassicum,* occurs. However, the only member of the *H. jurassicum* aggregate known to occur in Romania is *H. subperfoliatum* Arv.-Touv. M. Niketić

Hieracium karaulanum (O. Behr & al.) Niketić, **comb. & stat. nov.** ≡ *Hieracium calophyllum* subsp. *karaulanum* O. Behr & al. in Glasnik Skopsk. Naučn. Društva 20: 29. 1939.

Hieracium macropannosum (Rech. f. & Zahn) Greuter, **comb. & stat. nov.** ≡ *Hieracium pilosissimum* subsp. *macropannosum* Rech. f. & Zahn in Bot. Jahrb. Syst. 69: 534. 1939.

Hieracium pilosissimum Friv. 1836 [non Schrank 1789] is a later homonym. Its correct name is *H. divaricatum* Fr., and it is a member of the *H. chalcidicum* aggregate. All taxa that Zahn (in Engler, Pflanzenr. 77: 593-595. 1921) considered as subspecies of *H. pilosissimum* are now treated as segregate species in that aggregate. W. Greuter

Hieracium malovanicum Degen & Zahn

– **Al:** Hayek (in Repert. Spec. Nov. Regni Veg. Beih. 30(2): 923. 1931) erroneously gives *"A"* (Albania in the wide sense) as area of occurrence of this species, and by consequence Sell & West (in Tutin & al., Fl. Eur. 4: 386. 1976) still mention its occurrence in "Al", albeit with a question mark. In reality the locus classicus and only known locality, Malovan on Mt Velebit, is situated in Croatia. M. Niketić

Hieracium megalosvaneticum Sennikov, **nom. nov.** ≡ *Hieracium biebersteinii* Litv. & Zahn in Repert. Spec. Nov. Regni Veg. 4: 329. 1907, nom. illeg. ≡ *Hieracium muricellum* subsp. *biebersteinii* Zahn in Engler, Pflanzenr. 79: 1063. 1922.

The nomenclatural problems connected with the name *Hieracium biebersteinii* are complex and require careful analysis. The name first appears in one of the instalments of Zahn's paper on Litwinow's Caucasian *Hieracia* (in Repert. Spec. Nov. Regni Veg. 4: 260. 10 Sep 1907), where it designates a species comprising three subspecies: subsp. *biebersteinii,* subsp. *hypopogon* Litw. & Zahn and subsp. *pulchrisetum* Litw. & Zahn. All three subspecies are carefully described but the species lacks a description. According to Art. 41.3(a) of the International Code of Botanical Nomenclature, a name of a species (here: *H. biebersteinii*) can be validated by provision of a description of the species itself (here lacking), but not of differently circumscribed, e.g. subordinated, taxa (here: the subspecies of *H. biebersteinii*). Therefore, *H. biebersteinii* is technically a nomen nudum, and none of the subordinate names is validly published either (ICBN, Art. 43.1). In the index that concludes the final instalment of Zahn's paper (l.c.: 329-330. 15 Nov 1907) the names of the species and its subspecies (except

subsp. *biebersteinii*) again appear, being listed as accepted. Here, they are formally validated through direct reference to the corresponding, previously published subspecies descriptions. This is possible because the relevant provision of the ICBN, Art. 41.3(b), permits validation of a name through reference to a previously published description of a [not necessarily: the!] taxon. In this case, *H. biebersteinii* is validated by reference to the earlier description of subsp. *biebersteinii,* despite of the fact that this is not the same taxon. Once the species name is validly published, there will be no more problem with the validation of the subspecies names, *H. biebersteinii* subsp. *hypopogon* and subsp. *pulchrisetum,* through reference to the earlier description of the identical taxa so designated, subsp. *biebersteinii* established automatically (Art. 26.3).

However, a new problem now arises: *Hieracium biebersteinii* subsp. *pulchrisetum* is based on the very type of the earlier species name *H. caucasiense* Arv.-Touv. (in Trudy Tiflissk. Bot. Sada 4: 375. 1899), a name that should have been taken up for the species. In its place of valid publication *H. biebersteinii* is therefore an illegitimate name, which cannot become legitimate later even when the offending element is excluded (as it is now). A new species name is therefore required, as here proposed.

Hieracium megalosvaneticum is a new name based on the later and legitimate *H. muricellum* subsp. *biebersteinii* Zahn, both being based on the same type as the illegitimate *H. biebersteinii:* Caucasus. Prov. Kuban: in subalpibus ad fontes prov. Teberda ad vias, 2530-2660 m, 10.-15.6.1905, *Litwinow 57b* (lectotype [designated by Nikolaev in Bot. Žurn. 75: 563. 1990, restricted here]: LE!, isolectotypes: LE!, H!, and duplicates distributed in Zahn, Hieracioth. Eur.: No. 399, as *H. biebersteinii* subsp. *biebersteinii*). The new epithet refers to the analogy between this taxon and *Hieracium svaneticum* Sommier & Levier [already noted by Litwinow on the label of the type specimen (LE): "*H. svanetico* Somm. et Lev.! similis, differt inflorescentia magis incana"]; and to the fact that, of the two, *H. megalosvaneticum* has significantly larger capitula. A. N. Sennikov

Hieracium orosense Gottschl., **nom. nov.** ≡ *Hieracium racemosum* f. *epinephum* Zahn in Engler, Pflanzenr. 79: 980. 1922 ≡ *Hieracium epinephum* (Zahn) Zahn in Glasn. Skopsk. Naučn. Društva 20: 127. 1939 [non Omang 1910].

This species, only known from Mt Athos (Hagion Oros) in Greek Makedonia, was originally described at the rank of forma within *Hieracium racemosum* subsp. *crinitiforme* Zahn. It is now considered as a member of the *H. triadanum* aggregate. G. Gottschlich

Hieracium oxyodon Fr.

– **Bu:** The material upon which the Bulgarian record by Andreev & Kožuharov (Opred. Višš. Rast. Bălgarija: 206. 1992) is based (Central Stara Planina, Trojanski Balkan, 1901, *Urumov,* SOM) is heterogeneous. One part probably belongs to *Hieracium retyezatense* Degen & Zahn, the other to *H. praecurrens* Vuk., but neither is *H. oxyodon.* M. Niketić

Hieracium petiolinum Sennikov, **nom. nov.** ≡ *Hieracium alpinum* subsp. *petiolatum* Elfstr. in Bih. Kongl. Svenska Vetensk.-Akad. Handl. 16(3, 7): 36. 1890 ≡ *Hieracium petiolatum* (Elfstr.) Dahlst., Herb. Hierac. Scand. 3: [in schedis] No. 25-27. 1893 [non Brenner 1892] ≡ *Hieracium nigrescens* subsp. *petiolatum* (Elfstr.) Zahn in Engler, Pflanzenr. 77: 647. 1921.

Hieracium praecurrens Vuk.

? **Al:** The basis of the Albanian record of this species by Sell & West (in Tutin & al., Fl. Eur. 4: 377. 1976) is not known for certain. I suspect that it is a collection of *Hieracium praecurrens* subsp. *megaladenophyes* K. Malý & Zahn from "Albanien: Dočanska [i.e. Dečanska] Bistrica-Tal" cited by Zahn (in Ascherson & Graebner, Syn. Mitteleur.

Fl. 12(2): 773. 1935). If so, the record is erroneous, because that locality is situated in Serbia. M. Niketić

Hieracium schmidtii subsp. ***neodontotrichodes*** Gottschl., **nom. nov.** ≡ *Hieracium pallidum* subsp. *odontotrichodes* O. Behr & al. in Glasn. Skopsk. Naučn. Društva 18: 56. 1937 [non Zahn 1921].

Hieracium scotostictum Hyl.

N **Su:** See the note under *Hieracium contaminatum*. T. Tyler

Hieracium severiceps Wiinst.

– **Su:** Sell & West (in Perring, Crit. Suppl. Atlas Brit. Fl.: 102. 1968) mention Sweden as one of the countries from which this species had been described. This must be an error: the species has not been mentioned as occurring in Sweden by any Swedish author. T. Tyler

Hieracium sternbergianum Chrtek f., **nom. nov.** ≡ *Hieracium sternbergii* Zlatník in Stud. Bot. Čechoslov. 1: 216. 1938 [non Hornem. 1819].

This species was misplaced by Dostál (Nova Květena ČSSR: 1152. 1989; Vel'ký Kl'úc Určovanie Vyšš. Rastl.: 1193. 1992) in the *Hieracium fritzei* aggregate but clearly belongs in the *H. atratum* aggregate instead. It is an endemic of the Krkonoše Mts of Poland and the Czech Republic. J. Chrtek

Hieracium subpannosum (Pawł.) Greuter, **comb. & stat. nov.** ≡ *Hieracium pilosissimum* subsp. *subpannosum* Pawł. in Acta Soc. Bot. Poloniae 32: 478. 1963.

See the note under *Hieracium macropannosum.* W. Greuter

Hieracium subpatulum Zahn

– **Ju:** The basis of the record of this species for (former) Yugoslavia by Sell & West (in Tutin & al., Fl. Eur. 4: 379. 1976) is the original collection of this species, from "Kärnten: Wischberg bei Raibl" (Zahn in Ascherson & Graebner, Syn. Mitteleur. Fl. 12(2): 156. 1930). However, Raibl (Predil) and Wischberg peak (Iôf Fuart) are now situated in Italy, close to the Slovenian frontier. M. Niketić

Hieracium thapsiformoides K. Malý

– **SM(S):** The alleged occurrence of this species in Serbia (Hayek in Repert. Spec. Nov. Regni Veg. Beih. 30(2): 996. 1931, under the illegitimate designation *Hieracium plumulosiforme* Zahn var. *plumulosiforme*), also quoted by Gajić (in Josifović, Fl. S.R. Srbije 7: 426. 1975, as *H. plumulosiforme* var. *plumulosiforme*) must be disregarded. Presumably, it is due to confusion with the closely related *H. albopellitum* (Zahn) Niketić. M. Niketić & G. Tomović

Hieracium tommasinianum subsp. ***castelli-novi*** (K. Malý & Zahn) Gottschl., **comb. nov.** ≡ *Hieracium tommasinii* subsp. *castelli-novi* K. Malý & Zahn in Glasn. Zemaljsk. Muz. Bosni Hercegovini 37: 57. 1925.

Hieracium tommasinianum subsp. ***setosissimum*** (Nägeli & Peter) Gottschl., **comb. nov.** ≡ *Hieracium tommasinii* subsp. *setosissimum* Nägeli & Peter, Hierac. Mitt.-Eur. 2: 83. 1886.

The new combinations are needed because *Hieracium tommasinii* Rchb. f. (in Reichenbach, Icon. Fl. Germ. Helv. 19(1): 100. 1859) is a later homonym of *H. tommasinii* [sphalm.: *'tomasinii'*] Host (Fl. Austriac. 2: 414. 1831). The homonymy was noted long ago by Malý (in Verh. K.K. Zool.-Bot. Ges. Wien 54: 306. 1904) who proposed

H. tommasinianum K. Malý as a replacement name, which was unfortunately ignored by subsequent authors, including Malý himself. G. Gottschlich

Hieracium torticeps (Dahlst.) Dahlst.

+ Su: Was considered a grass-seed alien by Hylander (in Symb. Bot. Upsal. 7(1): 159-162. 1943). However, in this one case I doubt Hylander's assessment. A taxon very similar to the type of *Hieracium torticeps* is indeed found as introduced in Scandinavian parks, but there is also a considerable number of gatherings, all from a restricted region in S Sweden, that are hardly associated with parks, one (not seen by Hylander) collected in 1877 – when the first record of a Swedish "park *Hieracium*" dates from 1889. T. Tyler

Hieracium wiesbaurianum subsp. ***semiwiesbaurianum*** Gottschl., **subsp. nov.** – Latin description by Zahn (in Engler, Pflanzenr. 75: 262. 1921), under *Hieracium wiesbaurianum* subsp. *subwiesbaurianum*. – Holotype: [Austria], "Niederösterreich, zwischen Weinbergen bei Gumpoldskirchen", *Korb* (W 1956-1979, det. K. H. Zahn).

+ Au(A): When originally published by Zahn (l.c.), the name *Hieracium wiesbaurianum* subsp. *subwiesbaurianum* was illegitimate due to the inclusion, as a synonym, of *H. caesium* subsp. *suntaliense* Holle (Beob. Weserkette Hierac.: 7. 1892), a taxon recently transferred to a different species and renamed *H. glaucinum* subsp. *suntaliense* (Holle) Gottschl. (in Braunschweig. Naturk. Schr. 5: 813. 1999). The remaining material included by Zahn in *H. wiesbaurianum* subsp. *subwiesbaurianum* may well belong to more than one taxon. Plants from Thuringia have indeed been segregated as *H. euwiesbaurianiforme* (Schack & Zahn) Jochen Müll. (in Haussknechtia 10: 136. 2004). For the time being the new subspecies, as here defined, is therefore only known with certainty from Austria. G. Gottschlich

Klasea caucasica (Boiss.) Greuter, **comb. nov.** ≡ *Serratula caucasica* Boiss., Fl. Orient. 3: 590. 1875.

Klasea integrifolia (Vahl) Greuter, **comb. nov.** ≡ *Cynara integrifolia* Vahl, Symb. Bot. 1: 68. 1790 [= *Serratula monardii* Dufour in Ann. Sci. Nat. (Paris) 23: 155. 1831 ≡ *Klasea monardii* (Dufour) Holub in Folia Geobot. Phytotax. 18: 204. 1983].

Klasea integrifolia subsp. ***algarbiensis*** (Cantó) Greuter, **comb. nov.** ≡ *Serratula monardii* var. *algarbiensis* Cantó in Lazaroa 6: 60. 1984.

The identity of *Cynara integrifolia* Vahl has long remained obscure. Willkomm (in Willkomm & Lange, Prodr. Fl. Hispan. 2: 181. 1865) treats it as a doubtful species of which he has seen no material, submitting that it might rather belong to *Carduncellus*. Smythies (in Englera 3: 155. 1984) lists it in brackets without accepting it. Other authors ignore it completely. There is, however, a good original specimen in the Vahl herbarium (C), available in the IDC microfiche edition (card No. 17: B.6-7), which is presumably the holotype (or if a lectotype, then so designated here). It was annotated by Vahl himself, on the back of the sheet, with the species name and specimen origin: "habit. in Montib. versus Toledo, Barnades". Wiklund must have seen it when preparing her *Cynara* monograph, as (in Bot. J. Linn. Soc. 109: 121. 1992) she tentatively equates *Cynara integrifolia* with *Serratula pauana* Iljin. In this she was correct, except for the fact that the latter is a plain synonym of *S. monardii* Dufour (*Klasea monardii* (Dufour) Holub in our classification). The Barnadès specimen is a perfect match of the figure of *Serratula monardii* f. *monardii* in Cantò's revision of Iberian *Serratula* (in Lazaroa 6: 55. 1985), and according to her maps and specimen list that taxon has been collected repeatedly in the Toledo Province.

W. Greuter

Klasea radiata subsp. ***biebersteiniana*** (Grossh.) Greuter, **comb. nov.** ≡ *Serratula radiata* subsp. *biebersteiniana* Grossh., Fl. Kavk. 4: 194. 1934 ≡ *Serratula biebersteiniana* (Grossh.) Takht. in Tahtadžjan & Fedorov, Fl. Erevana [ed. prior]: 323. 1945.

Onopordum canum Eig

D **Tu(A):** C6 Urfa: c. 10 km N of Birecik [37°07'N, 37°58'E], Wadi, Strassenrand, 380 m, 25.5.1983, *Sorger 83-6-2* (W).

D **Jo:** Transjordania, Desertum Syriacum, inter Amman et Rutba [Ar Rutbah], Amman [ca. 32°28'N, 38°39'E], in saxosis calc., 27.5.1957, *Rechinger 12989* (G, W).

The main distribution area of this species lies in the grain-producing lands of N Iraq and W Iran. A few occurrences in the desert region of W Iraq have been recorded, all situated along the main desert road linking Baghdad to Amman (e.g., *Rechinger 9941, 12609, 12845,* of May and June 1957). The exact collecting locality of *Rechinger 12989,* the westernmost of this series, between Amman and Rutba, is unknown but is undoubtedly situated in E Jordan. The native status of the species in Jordan is uncertain, as these roadside plants may well have been adventive rather than native, carried along with grain transports. The same is true for the so far single record of *Onopordum canum* from adjacent SE Turkey, perhaps brought in by similar traffic from Iraq. P. Hein

Onopordum carduchorum Bornm. & Beauv.

+ Sy: Al Hasakah, SE de Deirik [Dayrik] (Bec du Canard) [37°02'N, 42°04'E], 26.6.1956, *Pabot* (G); Al Ladhiqiyah, El-Ourdou (65 km S of Antioch), 400-600 m [35°38'N, 36°13'E], 26.6.1932, *Delbès* (HUJ); Idlib, Dj. Arbain, env. of Eriha [Ariha; 35°49'N, 36°38'E], field borders and rocks in a cut Quercetum, 27.6.1932, *Eig & Zohary* (HUJ).

This species has a coherent native distribution in Iraq, Iran, Syria and SE Turkey, following the wide arc of the Golden Crescent along the central and E Toros and the Zagros range in Turkey and Iran. In Syria it had been mistaken for *Onopordum illyricum* L. or *O. illyricum* subsp. *carduncul*us (Boiss.) Arènes (Eig in Palestine J. Bot., Jerusalem Ser. 2: 186. 1942; Post, Fl. Syria, ed. 2, 2: 95. 1933). There are many records from mountainous Mediterranean NW Syria, e.g. from the provinces Al Hasakah, Al Ladhiqiyah and Idlib. P. Hein

Onopordum espinae Bonnet

D **Ag:** Dép. Constantine, Lambisse [Tazoult Lambèze; 35°29'N, 06°16'E], 8.1912, *Clavé* (P).

The species is not uncommon in Libya and the northern half of Tunisia, but was found only once in the neighbouring eastern part of Algeria. This may just have been a casual occurrence, but it may also represent a western outlyer of the native area. P. Hein

Onopordum illyricum L. subsp. ***illyricum***

A **Rm:** Prov. B[acau]: Talfa [Talpa: 44°17'N, 25°18'E], 7.1877, *Cluna* [?] (PRC).

This is the single known specimen from Romania. It merely documents a former casual occurrence, far outside the species' normal range. Its nearest native occurrences are in the coastal and lowland regions of the S and W Balkan peninsula, where it is not uncommon. P. Hein

Onopordum syriacum Holmboe

D **Le:** Rachaya [Ráshayyá: 33°30'N, 35°50'E] , 1300 m, 18.7.1926, *Berton 236* (P).

Onopordum syriacum inhabits a small area in W Syria. There is a single specimen from outside that area, in N Lebanon. The status of the Lebanese plant (whether native or alien) remains unclear. P. Hein

Pojarkovia pojarkovae (Schischk.) Greuter, **comb. nov.** ≡ *Senecio stenocephalus* Boiss., Fl. Orient. 3: 408. 1875 [non Maxim. 1871] ≡ *Senecio pojarkovae* Schischk. in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 15: 409. 1953 ≡ *Pojarkovia stenocephala* Askerova in Novosti Sist. Vyšš. Rast. 21: 186. 1984, nom. illeg.

Psephellus bagadensis (Woronow.) Greuter, **comb. nov.** ≡ *Centaurea bagadensis* Woronow in Trudy Imp. S.-Peterburgsk. Obšč. Estestvoisp., Vyp. 3, Otd. Bot. 34: 31. 1905.

Psephellus caucasicus (Sosn.) Greuter, **comb. nov.** ≡ *Aetheopappus caucasicus* Sosn. in Zametki Sist. Geogr. Rast. 17: 14. 1953.

Psephellus czirkejensis (Husseinov) Greuter, **comb. nov.** ≡ *Centaurea czirkejensis* Husseinov in Bot. Žurn. 75: 430. 1990 [= *Phaeopappus daghestanicus* Lipsky in Trudy Tiflissk. Bot. Sada 6: 62. 1902 ≡ *Sosnovskya daghestanica* (Lipsky) Czerep. in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 20: 482. 1960 ≡ *Centaurea daghestanica* (Lipsky) Czerep. in Komarov, Fl. SSSR 28: 479. 1963 (non *Psephellus daghestanicus* Sosn. 1934)].

Psephellus holophyllus (Sosn.) Greuter, **comb. nov.** ≡ *Centaurea holophylla* Sosn. in Komarov, Fl. SSSR 28: 610. 1963.

Psephellus kolakovskii (Sosn.) Greuter, **comb. nov.** ≡ *Centaurea kolakovskii* Sosn. in Komarov, Fl. SSSR 28: 611. 1963.

Psephellus ruprechtii (Boiss.) Greuter, **comb. nov.** ≡ *Phaeopappus ruprechtii* Boiss., Fl. Orient. 3: 601. 1875 ≡ *Sosnovskya ruprechtii* (Boiss.) Takht. in Sovetsk. Bot. 5: 99. 1936 ≡ *Centaurea ruprechtii* (Boiss.) Wagenitz in Bot. Jahrb. Syst. 82: 194. 1963.

Rhaponticoides razdorskyi (Sosn.) M. V. Agab. & Greuter, **comb. nov.** ≡ *Centaurea razdorskyi* Sosn. in Komarov, Fl. SSSR 28: 607. 1963.

Rhaponticum scariosum subsp. ***rhaponticum*** (L.) Greuter, **comb. nov.** ≡ *Centaurea rhapontica* L., Sp. Pl.: 915. 1753 ≡ *Leuzea rhapontica* (L.) Holub in Folia Geobot. Phytotax. 8: 392. 1973 ≡ *Stemmacantha rhapontica* (L.) Dittrich in Candollea 39: 49. 1984.

Dittrich (in Candollea 39: 49. 1984) recognises two subspecies in the species he names *Stemmacantha rhapontica* (L.) Dittrich (taken in the strict sense, i.e. excluding *Rhaponticum heleniifolium* Godr. & Gren.): subsp. *rhapontica,* growing in S and E Switzerland, N Italy and "N Yugoslavia" [Slovenia] (Dittrich l.c.: 47) on limestone (Dittrich in Candollea 45: 491. 1990); and subsp. *lamarckii* Dittrich, a more westerly taxon growing on siliceous substrate in the Alps of France, SW Switzerland and NW Italy (Dittrich, l.c. 1990). Whereas Dittrich's taxonomic treatment is not in doubt, his nomenclature (that I have recently and misguidedly followed: see Greuter in Willdenowia 33: 61. 2003) is unfortunately flawed.

Dittrich originally (in 1984) published *Stemmacantha rhapontica* subsp. *lamarckii* as a substitute name for *Rhaponticum scariosum* Lam. (Fl. Franç. 2: 38. 1779). Subsequently (in 1990), considering the earlier publication of the name to be invalid, he republished it as the name of a new taxon, based on a modern type specimen (but still including Lamarck's original concept). In so doing, he assumed that Lamarck's *R. scariosum* was an avowed substitute for *Centaurea rhapontica* L. This assumption is unwarranted: Lamarck provided his own description, based on plants from the French Alps, and whereas he does cite the Linnean name in synonymy he does not "avow" that his own name is a replacement for it. The Linnean specimen designated by Dittrich (l.c. 1984) as the type of *Centaurea rhapontica* (Herb. Clifford: 421, *Centaurea* No. 9, BM; see Dittrich 1984) was not seen by Lamarck and is not even part of the original material for *Rhaponticum scariosum.* In an early publication of mine (Greuter in Candollea 23:

263-265. 1968) I have discussed at length the exactly parallel case of *Phaca alpina* L. and *Astragalus penduliflorus* Lam., and have reached a similar conclusion.

Accepting as we must *Rhaponticum scariosum* Lam. as the legitimate name of a new species, we find that *Stemmacantha rhapontica* subsp. *lamarckii* Dittrich 1984 is a validly published substitute name for it. It is, however, illegitimate because of the existence of the priorable autonym *Rhaponticum scariosum* subsp. *scariosum,* created by Nyman (Consp. Fl. Eur.: 416. 1879), the epithet of which should have been used in preference to *lamarckii*. Under the redeemed generic name *Rhaponticum* (see Greuter & al. in Taxon 54: 155, 159. 2005), where the correct species name is *R. scariosum,* subsp. *lamarckii* is a homotypic synonym of subsp. *scariosum,* whereas Dittrich's other subspecies, *Stemmacantha rhapontica* subsp. *rhapontica,* must conserve its epithet. Its priority at subspecies rank dates from the establishment of the autonym *Centaurea rhapontica* subsp. *rhapontica* in Arcangeli (Comp. Fl. Ital.: 387. 1882).

My last remark concerns the epithet *rhapontica.* Linnaeus wrote it with a capital initial letter, and later Hill (Veg. Syst. 4: 47. 1762) used feminine *Rhapontica* as a generic name. One might therefore be tempted to regard *rhapontica* as a noun in apposition and, worse, opt for creating the para-tautonym *"Rhaponticum rhapontica"*. In fact, however, up to Linneaus's time the name was neuter *Rhaponticum,* used substantivally for a genus of plants. Linnaeus, while acknowledging its generic origin by capitalising the epithet, transformed it into an adjective to make it agree with *Centaurea* (feminine) in gender. Under neuter *Rhaponticum* the epithet must therefore become *rhaponticum.* As such it cannot be used at species level because of the tautonymy rule, but is available in infraspecific ranks. W. Greuter

Senecio cineraria DC. subsp. ***cineraria***

N **Bl(I), Bl(M), Bl(N):** Duvigneaud (in Soc. Échange Pl. Vasc. Eur. Occid. Médit. 17, suppl.: 10. 1979) lists this taxon as a native of Mallorca only, whereas Bolòs & Vigo (Fl. Països Catal. 3: 847. 1996) mention it as cultivated on Mallorca and Menorca. While indeed it is not native on the Balearic Islands, it is cultivated as an ornamental and naturalised on maritime rocks on Mallorca, Menorca and Ibiza. L. Sáez

Senecio leucanthemifolius subsp. ***caucasicus*** (DC.) Greuter, **comb. nov.** ≡ *Senecio vernalis* var. *caucasicus* DC., Prodr. 6: 345. 1838 ≡ *Senecio candolleanus* Sosn. in Žurn. Russk. Bot. Obšč. 14: 86. 1929 [non Hook. & Arn. 1841] ≡ *Senecio sosnovskyi* Sofieva in Izv. Akad. Nauk Azerbaidžansk. SSR 1957(1): 89. 1957.

Senecio squalidus subsp. ***rupestris*** (Waldst. & Kit.) Greuter, **comb. nov.** ≡ *Senecio rupestris* Waldst. & Kit., Descr. Icon. Pl. Hung. 2: 136. 1803 ≡ *Senecio nebrodensis* subsp. *rupestris* (Waldst. & Kit.) Hayek in Repert. Spec. Nov. Regni Veg. Beih. 30(2): 682. 1931.

Abbott & al. (in Watsonia 23: 123-138. 2000; 24: 17-29. 2002) have recently demonstrated the hybrid origin of the plant naturalised on the British Isles that had been described as *Senecio squalidus* by Linnaeus, its probable identity with a similar hybrid from Siciliy that had been described as *Jacobaea incisa* C. Presl, and its distinctness from *S. rupestris* that had been synonymised with it by many recent authors. While agreeing with their conclusions I prefer, for practical reasons, to treat the taxa concerned (including but not limited to the following one) as subspecies of a single species. W. Greuter

Senecio squalidus subsp. ***sardous*** (Fiori) Greuter, **comb. & stat. nov.** ≡ *Senecio nebrodensis* var. *sardous* Fiori in Fiori & Paoletti, Fl. Italia 3: 212. 1903.

Solidago virgaurea subsp. ***armena*** (Grossh.) Greuter, **comb. & stat. nov.** ≡ *Solidago armena* Grossh., Fl. Kavk. 4: 91. 1934.

Solidago virgaurea subsp. ***caucasica*** (Kem.-Nath.) Greuter, **comb. & stat. nov.** ≡ *Solidago caucasica* Kem.-Nath. in Trudy Tbilissk. Bot. Inst. 6: 101. 1938.

Solidago virgaurea subsp. ***turfosa*** (Grossh.) Greuter, **comb. & stat. nov.** ≡ *Solidago turfosa* Grossh., Fl. Kavk. 4: 91. 1934.

Symphyotrichum patulum (Lam.) Karlsson, **comb. nov.** ≡ *Aster patulus* Lam., Encycl. 1: 308. 1783.

P **Su:** A long-persisting relic of cultivation known from several localities in eastern central Sweden. The species is of New World origin but was described from garden material and is unknown in the wild. It is closely related to *Symphyotrichum novi-belgii* (L.) G. L. Nesom, but was held to be a distinct species already by Hylander (in Svensk. Bot Tidskr. 64, Suppl.: 271. 1971). T. Karlsson

Tanacetum parthenium (L.) Sch. Bip.

A **Bl(M):** Reported from Mallorca as an introduced plant of unspecified status by Duvigneaud (in Soc. Échange Pl. Vasc. Eur. Occid. Médit. 17, suppl.: 11. 1979), and as cultivated only in both Mallorca and Menorca by Bolòs & Vigo (Fl. Països Catal. 3: 807. 1996), *Tanacetum parthenium,* while indeed cultivated as an ornamental in the Balearic Islands, also occurs as a casual alien on Mallorca, usually close to its areas of cultivation. L. Sáez

Tephroseris cladobotrys subsp. ***subfloccosa*** (Schischk.) Greuter, **comb. & stat. nov.** ≡ *Senecio subfloccosus* Schischk. in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 15: 402. 1953.

Tephroseris integrifolia subsp. ***primulifolia*** (Cufod.) Greuter, **comb. & stat. nov.** ≡ *Senecio primulifolius* Sommier & Levier in Nuovo Giorn. Bot. Ital., ser. 2, 22: 89. 1895 [non Vell. 1827] ≡ *Senecio integrifolius* f. *primulifolius* Cufod. in Repert. Spec. Nov. Regni Veg. Beih. 70: 23. 1933 [= *Senecio karjaginii* Sofieva in Izv. Akad. Nauk Azerbaidžansk. SSR 1957(1): 89. 1957].

Volutaria saharae (L. Chevall.) Wagenitz

\+ **Eg:** "Egypt. super.: oberhalb Drinkah bei Assiut", 2.4.1882, *Schweinfurth 40* (BR, K, US, Z).

\+ **Li:** "Wadi Tengesir, Jebel Soda, growing on sandy silt", 2.3.1952, *Guichard 111* (BM); "Tripolitania, Distr. Beni Ulid: Wadi Ghirza, 170 km S of Beni Ulid, rocky desert, in pockets of sand", 150 m, 9.4.1960, *Keith 563* p.p. (K, with *Volutaria lippii*); "Tripolitania (prior to 1957 Fezzan): 22 km W of Bhir Ghazel, pre-desert, association of *Haloxylon articulatum* and *Artemisia herba-alba*", 15.3.1958, *Keith 198* (K).

The species, first described as *Amberboa saharae* L. Chevall. (in Bull. Herb. Boissier, ser. 2, 5: 442. 1905) from El-Goléa in the Algerian Sahara, was so far unrecorded from outside of Algeria. G. Wagenitz

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