



Med-Checklist Notulae, 19

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WERNER GREUTER & THOMAS RAUS (ed.)

Med-Checklist Notulae, 19

Abstract

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Continuing a series of miscellaneous contributions, by various authors, where hitherto unpublished data relevant to the Med-Checklist project are presented, this instalment deals with the families *Isoetaceae*; *Amaranthaceae*, *Asclepiadaceae*, *Boraginaceae*, *Caryophyllaceae*, *Cistaceae*, *Compositae*, *Cruciferae*, *Labiatae*, *Leguminosae*, *Lythraceae*, *Onagraceae*, *Polygonaceae*, *Rafflesiaceae*, *Rosaceae*, *Salicaceae*, *Sapindaceae*, *Solanaceae*, *Umbelliferae*, *Violaceae*; *Cyperaceae*, *Gramineae*, *Hydrocharitaceae*, and *Juncaceae*. It includes new country and area records, taxonomic and distributional considerations. A new species of *Halimium* is described and illustrated. New names and combinations are validated in *Amelanchier* and *Lonicera*.

Notice

For explanation see the introduction and list of geographical symbols in Willdenowia 10: 13-15. 1980, and the definition of the status symbols in Willdenowia 11: 23. 1981. The previous instalment was published in Willdenowia 29: 51-67. 1999.

Isoetaceae

Isoetes durieui Bory

- + **Cr:** Greece, Crete, Nomos of Iraklion, Eparchia of Viannos: Omalos (Dikti) plain c. 5 km NE of Viannos (35°04'N, 25°27'E), alt. 1300 m, on seasonally flooded ground, 2.11.1999, *Böhling & Raus 10529* (B); id., Nomos of Dodekanisos, Eparchia of Karpathos: Island of Karpathos, Lastos plain, alt. 720 m, moist places in *Sarcopoterium spinosum* phrygana with *Romulea bulbocodium* (L.) Sebast. & Mauri, 1.4.1998, *Böhling & Raus 7416* (B). – Leaf bases shaped as blackish-brown, persistent, horny scales with lateral lobes slightly longer than the central ones; megaspores reticulate and prominently ridged. No plants with phyllopodia showing spine-like lateral lobes much exceeding the central lobe (an important distinguishing character of *Isoetes histrix* Bory: see Davis, Fl. Turkey 1: 37. 1965; Castroviejo & al., Fl. Iber. 1: 16. 1986; Tutin & al., Fl. Eur., ed. 2, 1: 7. 1993) were observed in the sampled populations. N. Böhling & Th. Raus

*Amaranthaceae**Amaranthus viridis* L.

- N Al:** Albania, District of Sarandë: Sarandë, alt. 5 m, ruderal places in the city, 29.8.2000, *Raus* 23978 (B). – Weed of tropical origin, fully naturalised in waste places and irrigated garden grounds of the city of Sarandë, where it is associated with but less frequent than *Amaranthus blitoides* S. Watson. Not given for Albania by Jalas & Suominen (Atlas Fl. Eur. 5: 98. 1980) and Tutin & al. (Fl. Eur., ed. 2, 1: 132. 1993), and likewise omitted from recent Albanian basic floras (Demiri, Fl. Eksk. Shqipërisë. 1983; Papparisto & al., Fl. Shqipërisë 1. 1988).
Th. Raus

*Asclepiadaceae**Asclepias physocarpa* (E. Mey.) Schltr.

- N Cr:** Greece, Crete, Nomos of Chania, Eparchia of Kidonia: Nea Roumata (35°24'N, 23°51'E), alt. 350 m, subspontaneous by a dust road and in a ditch near the cemetery, on carbonate soil, together with *Dittrichia viscosa* (L.) Greuter, *Piptatherum miliaecum* subsp. *thomasi* (Duby) Freitag, *Lactuca serriola* L. and *Conyza albida* Spreng., 24.10.1999, *Böhling* 10409 (B); *ibid.*, Deres, alt. 200 m, ruderal by a dust road, 24.10.1999, *Böhling obs.*; *id.*, Nomos of Dodekanisos, Eparchia of Karpathos: Island of Karpathos, Olimbos (35°44'N, 27°10'E), alt. 250 m, ruderal by a small, steep drainage channel below the village, 29.10.1999, *Böhling & Raus* 10474 (B). – *Asclepias physocarpa* is similar to *A. fruticosa* L. in general habit and ecology, and same as the latter species it is fully naturalised in the South Aegean area. It is easily recognised by its globose follicles (ovate and pointed in *A. fruticosa*). The species is of S African origin and has invaded, i.a., large parts of Australia. Obviously it has so far been overlooked in the Med-Checklist area. Good illustrations, diagnostic drawings and keys are found in Harden (Fl. New South Wales 3: 527. 1992) and Pooley (Field Guide Wild Flow. Kwazulu-Natal: 547. 1998).
N. Böhling & Th. Raus

*Boraginaceae**Cynoglossum hungaricum* Simonk.

- **Gr:** When reappraising the long neglected *Cynoglossum pustulatum* Boiss. (Sutory in Čas. Morav. Mus. v Brně, Vědy Přír. 74: 167-173. 1989) I suggested that the distribution of *C. pustulatum* subsp. *parvifolium* (Vis.) Sutoryý (= *C. velebiticum* K. Malý) was limited to the “western part of the Balkan Peninsula, from Mt Velebit in Yugoslavia through Albania up to the Pindos mountain range in Greece” (Sutoryý, l.c.: 170 & map 1). I visited the Peloponnese in 1995 and found the latter taxon in several places (Nomos of Arkadia, W slopes of Mt Menalon, c. 5 km SW of the village of Vitina, close to the Methidrion junction, alt. c. 1000 m, 5.6.1995, *Sutoryý*, BRNM; Nomos of Achaia, Mt Chelmos, c. 5 km SE of Kalavrita, along the road to the summit, 17.6.1995, *Sutoryý*, BRNM). Further records are based on herbarium specimens (Nomos of Fthiotis, Mt Parnassus prope Agorgiani, 1907, *Leonis*, UPA, WU; Nomos of Lakonia, in m. Taygeto Laconiae, *Heldreich*, GZU; Nomos of Achaia, mons Chelmos Achaiae, 1857, *Orphanides*, WU, P; *id.*, Mt Chelmos, above Kalavrita, alt. 1300 m, 1989, *Hanson*, RNG). This is the only taxon of the *C. montanum* species group found in Greece. The statement in Strid & Tan (Mount. Fl. Greece 2: 59. 1991) that *C. hungaricum* occurs “southward to Taygetos and Parnon” (see also Tutin & al., Fl. Eur. 3: 120. 1972) unequivocally refers to *C. pustulatum* subsp. *parvifolium*.

C. nebrodense Guss. was already excluded from “Gr” by Greuter & al. (Med-Checklist 1: 79. 1984), following Pignatti (Fl. Ital. 2: 430. 1982). *C. hungaricum* Simonk., which we consider to be conspecific with *C. montanum* L. s.str., does not occur in Greece either. K. Sutory

***Myosotis litoralis* Fisch.**

- + Cr: Greece, Crete, Nomos of Rethimnon, Eparchia of Milopotamos: northern Psiloritis, between Zominthos and the Nida plain (35°14'N, 24°53'E), alt. 1400 m, in a small, heavily grazed polje on colluvial terra fusca soil, with *Astragalus creticus* Lam., *Polygonum idaem* Hayek and *Carlina curetum* Halácsy, 11.5.1999, *Böhling 9935e* (B); *ibid.*, Iakinthos, S of Zominthos (35°15'N, 24°51'E), alt. c. 1200 m, on sandy, siliceous colluvium in a small, heavily grazed polje dominated by *Ononis spinosa* subsp. *diacantha* (Rechb.) Greuter and *Carlina curetum* subsp. *curetum*, with *Aphanes floribunda* (Murb.) Rothm., *Cerastium semidecandrum* L., *Myosotis incrassata* Guss., *Stellaria pallida* (Dumort.) Crépin, *Veronica arvensis* L. and many other annuals, 12.5.1999, *Böhling 9975a* (B); *id.*, Nomos and Eparchia of Lasithi: Dikti, Limnakaros plain (35°08'N, 25°29'E), alt. 1150 m, on quartzitic schist, in a young plantation of *Juglans regia* L., with *Aira elegantissima* Schur, *Moenchia graeca* Boiss. & Heldr., *Spergula arvensis* L., *Trifolium subterraneum* L., *Vulpia muralis* (Kunth) Nees, etc., 3.5.1999, *Böhling 9582* (B). – *Myosotis litoralis*, known from scattered localities in the Aegean and the Crimea (Gr, Tu, An, RK) was previously unrecorded for the Cretan area. As it resembles the more widespread E Mediterranean *M. incrassata*, it is probably often overlooked and may be more widespread than is presently known. Both species are often found growing side by side. The fruiting calyces are densely crowded and appressed to the stem in *M. litoralis*, more distant and somewhat patent in *M. incrassata*. According to ecological field studies in the Aegean (Crete, Naxos; *Böhling obs.*), *M. litoralis* is not a plant of sandy places near sea level as claimed in Davis (Fl. Turkey 6: 269. 1978). It reaches an altitude of 1000 m on Naxos and at least 1400 m in Crete (see above). N. Böhling

***Nonea atra* Griseb.**

- + Gr: Greece, Thrace, Nomos of Evros, Eparchia of Souflion: 5 km E of Dadia (41°08'N, 26°16'E), alt. 80 m, roadside and gravel pit in agricultural area mixed with patches of deciduous oak scrub, 7.5.2000, *Strid & Lassen 50467* (C, G); *id.*, Eparchia of Alexandroupolis: just E of the village of Pilea (40°56'N, 26°07'E), alt. 180 m, dry meadows and margins of cultivated fields in openings of deciduous oak scrub, 8.5.2000, *Strid & Lassen 50519* (B, C, G, LD, herb. Tan); *id.*, Eparchia of Didimotichon: near the village of Dafni (41°27'N, 26°17'E), alt. 40 m, edges of cultivated fields, 9.5.2000, *Strid & Lassen 50582* (C, G); *id.*, Eparchia of Orestiada: just S of the town of Orestiada (41°28'N, 26°33'E), alt. 40 m, fallow fields near a sugar factory, together with *Leontice leontopetalum* L., 9.5.2000, *Strid & Lassen 50629* (C); *ibid.*, NE of the village of Rizia (41°38'N, 26°26'E), 22.5.1972, *Stamatiadou 15292* (ATH, C, as “*N. pulla*”; det. A. Strid); *ibid.*, SE of the village of Dikea (41°40'N, 26°18'E), 25.6. 1999, *Selvi & Bigazzi* (C, FI; det. A. Strid). – This species was first discovered by Grisebach in Turkish Thrace, where it is apparently rather common, and was subsequently reported from Bulgaria and Romania (Dobrogea). Its occurrence in adjacent parts of Greece was to be expected. It is related to *Nonea pulla* (L.) DC., but differs in indumentum characters and by the fact that the corolla is always blackish-purple; it was retained as a separate species in Davis (Fl. Turkey 6: 410. 1978) and in Jordanov (Fl. Bälğ. 9: 158. 1989). A. Strid & P. Lassen

Caprifoliaceae

Lonicera alpigena subsp. *hellenica* (Boiss.) Kit Tan & Ziel., **comb. & stat. nov.** \equiv *L. hellenica* Boiss., Diagn. Pl. Orient., ser. 2, 2: 108. 1856.

Lonicera alpigena subsp. *glutinosa* (Vis.) Kit Tan & Ziel., **comb. & stat. nov.** \equiv *L. glutinosa* Vis., Fl. Dalmat. 3: 18. 1850.

Lonicera alpigena L., a widespread mountain species, is very variable especially in the Balkan Peninsula, where beside the typical form several regional taxa with much controversial taxonomic status are found, such as *L. glutinosa* and *L. hellenica*. These taxa are rather weakly defined morphologically, but they are partly allopatric, and we consider the rank of subspecies to be most appropriate for them.

Kit Tan & J. Zieliński

Viburnum opulus L.

+ **Gr:** Greece, Makedonia, Nomos of Serres, Eparchia of Sintiki: 5 km from Promachonas along the road to Angistro (41°23'N, 23°24'E), alt. 120 m, shrub in mixed deciduous woodland by a stream, 30.4.2000, *Strid 49850* (B, C, G, LD, herb. Kit Tan). – A slight extension of the range of this well known Central European and circumboreal species. Several well developed shrubs, 3-4 m tall, were found in full flower. A. Strid

*Caryophyllaceae**Scleranthus polycarpus* L.

+ **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Sfakia: small polje below Kalliergi (35°20'N, 23°57'E), alt. 1470 m, ruderal on sandy soil along a road track, with *Anthemis rigida* Heldr. subsp. *rigida*, *Astragalus depressus* L. subsp. *depressus*, *Capsella bursa-pastoris* (L.) Medik., *Erophila praecox* (Steven) DC., *Lepidium hirtum* subsp. *oxyotum* (DC.) Thell., *Moenchia graeca* Boiss. & Heldr., *Poa pelasgis* H. Scholz, *Spergularia rubra* (L.) J. Presl & C. Presl, *Taraxacum aleppicum* Dahlst., etc., 20.5.1997, *Böhling 5904* (B); id., between Kalliergi and Mt Melindaou (35°19'N, 23°58'E), alt. 1800-1850 m, open thorn-cushion vegetation on calcareous substrate, with *Acantholimon echinus* (L.) Boiss., *Arabidopsis thaliana* (L.) Heynh., *Astragalus angustifolius* Lam. subsp. *angustifolius*, *Aubrieta deltoidea* (L.) DC., *Bromus tectorum* L., *Cerastium comatum* Desv., *Cynosurus effusus* Link, *Daphne oleoides* Schreb., *Erophila praecox*, *Euphorbia acanthothamnus* Boiss., *Prunus prostrata* Labill., *Ranunculus sprunerianus* Boiss., *R. subhomophyllus* (Halácsy) Vierh., *Sedum amplexicaule* DC., *Thlaspi perfoliatum* L., *Verbascum spinosum* L., etc., 21.5.1997, *Böhling 5928* (B). – The species is often considered as a subspecies of *Scleranthus annuus* L. and named *S. annuus* subsp. *polycarpus* (L.) Thell. (e.g. by Snogerup & Snogerup in Phitos & al., Fl. Hellen. 1: 220. 1997). It resembles *S. verticillatus* Tausch, already known from Crete (Greuter in Ann. Mus. Goulandris 1: 31. 1973) and also sometimes treated as a subspecies of *S. annuus* (e.g. by Sell in Tutin & al., Fl. Eur., ed. 2, 1: 179. 1993), but has equal sepals and a longer perigynous zone.
N. Böhling & S. Snogerup

Cistaceae

Halimium voldii Kit Tan, Perdetzoglou & Raus, **sp. nova** (Fig. 1). – Holotype: Greece, Peloponnisos, Nomos of Messinia, Eparchia of Kalamata, foothills of Mt Taigetos above Alagonia, alt. 1070 m, terra rossa over schistose rock, in secondary scrub replacing original *Pinus nigra* forest, 30.4.1998, *Tan & Vold 20377* (C; isotypes: G, UPA, herb. Kit Tan).

A *Halimio umbellato* sepalis 7-9 mm nec 5-6 mm longis, angustius ovatis, distincte acuminato-cucullatis, densius glanduloso-puberulis petalisque albis basi macula aurea semper instructis satis differt. *H. syriacum* imprimis ramis tortuoso-intricatis et foliis supra hispido-villosis, insuper petalis albis immaculatis abhorret.

Additional specimens: Greece, Nomos of Dodekanisos, Eparchia of Rhodos: Rhodos, 3.1845, *Heldreich* (K); id., Nomos of Messinia, Eparchia of Kalamae: Taigetos, col de Langadas, alt. 1400 m, 22.5.1983, *Bouharmont 15827* (herb. Bouharmont); id., Kiefernwälder in der Umgebung des Passes Langada, alt. 1220 m, 1.6.1983, *Garnweidner* (herb. Garnweidner); id., near Alagonia, alt. 1070 m, 29.4.1998, *Kit Tan & Vold 20297* (LD, herb. Kit Tan); *ibid.*, 24.5.1998, fully flowering, *Kit Tan 20450* (ATH, C); *ibid.*, alt. 940-980 m, 20.6.1997, fruiting, plant glandular-viscid, *Kit Tan & Vold 18513* (B, C, herb. Kit Tan).

Small shrublet with laxly spreading lower branches procumbent at the base. Flowering stems erect, to 35 cm tall, with long internodes, leafy at base, villose-pilose, stellate-puberulent and glandular-viscid. Leaves simple, opposite, exstipulate, entire, linear-elliptic, 5-20 × 1-2 mm, revolute, dark greyish-green, glabrous or sparsely pilose above, densely white stellate-tomentose and glandular-puberulent beneath. Flowers actinomorphic, in cymes of 1-3, the inflorescence conspicuously umbellate. Pedicels erect, 3-4 times as long as the calyx, unequal or subequal. Sepals 3, subequal, ovate, 7-9 mm long, apiculate-cucullate (strikingly so in vivo), inconspicuously veined, densely glandular-puberulent, sparsely long-ciliate near the margins, persistent. Petals 5, free, broadly obovate, 10-12 × 6 mm, truncate-crenulate at the apex, white with golden-yellow blotch at the base, evanescent. Stamens many, free; filaments 1-1.5 mm long, yellow; anthers orange at anthesis. Ovary superior, 3-carpellate, densely puberulent; style 1, short (c. 0.5 mm), straight; stigma ± subsessile, 3-lobed. Capsule subglobose, c. 5 × 4.5 mm, hardened, fulvous-puberulent, loculicidal, enclosed by the persistent calyx. Seeds 10-12, irregularly ovoid, c. 2 × 1.5 mm, their lateral faces depressed-concave, verrucose-tuberculate, dark reddish-brown.

In degraded macchia, on terra rossa and schistose rock, at altitudes of 940-1400 m, locally the dominant shrub under *Pinus nigra* after fire. Flowering from the end of April to late May; fruiting in June. Frosts are quite severe at this altitude even in late April when the plants were observed to be covered with tiny ice crystals during the night. The total range of *Halimium voldii* seems to be restricted to the Langada gorge and western foothills of Mt Taigetos, near Alagonia. In the entire area the *P. nigra* forest was destroyed by a fire in summer 1999.

A puzzling record of *Halimium voldii* from the East Aegean island of Rhodos (Davis, Fl. Turkey 1: 522. 1965, under *H. umbellatum*, based on a Heldreich specimen seen at K) appears out of range. Although a specimen of *Minuartia thymifolia* (Sm.) Bornm., labelled “in herbidis maritimis Rhodi”, proves Heldreich’s presence on the island at that time, the Kew specimen of *H. voldii*, which is poorly documented with only the month and year of collection, may be erroneously labelled, having been mixed with plants from Taigetos where Heldreich had collected the same species the year before (Halácsy, Consp. Fl. Graec. 1: 129. 1900). According to our field observations, the habitat of *H. voldii* is actually submontane and not by the sea.

Halimium umbellatum (L.) Spach which, with two subspecies, occurs in the Iberian Peninsula, S France (Pyrénées) and NW Africa (Algeria, Morocco) is very close to *H. voldii*. However, the sepals of the Greek species are distinctly longer, more narrowly ovate, acuminate-cucullate (markedly so in vivo) and densely glandular-puberulent; the petals are white with a golden-yellow blotch at the base. In *H. umbellatum* subsp.



Fig. 1. *Halimium voldii* – Greece, Peloponnisos, Mt Taigetos near Alagonia. – Photograph by Kit Tan, 24.5.2000.

umbellatum the sepals are at most 5-6 mm long, broadly triangular-ovate, subacute to obtuse and glandular-puberulent. In *H. umbellatum* subsp. *viscosum* (Willk.) O. Bolòs & Vigo, the sepals in addition are conspicuously hirsute-pilose, a type of indumentum not observed in *H. voldii*. In both subspecies of *H. umbellatum* the petals are recorded as pure white, without a basal blotch, a feature that is emphasised in all

flower colour descriptions of *H. umbellatum* (e.g., Castroviejo & al., Fl. Iber. 3: 340. 1993: “petalos 7-15 mm, blancos, no maculados”).

Halimium syriacum K. Koch (*Helianthemum syriacum* Boiss. [non (Jacq.) Dum. Cours.]), from subalpine levels (alt. 1600-1800 m) in Lebanon and Syria, differs from *Halimium voldii* by its intricately and tortuously branched stems and hispid-villous upper leaf surfaces. The nearest alleged occurrence of a *Halimium* species in the E Mediterranean is the record of *H. voldii* from Rhodos which, as remarked above, is probably erroneous. In the Balkan Peninsula *Halimium* is only represented by *H. voldii*, which has been recently investigated as to its phytochemical composition (Perdetzoglou & al., in press). More than thirty compounds have been identified in its essential oil, but labdane type diterpenes, which are major compounds in the *Cistaceae*, are surprisingly scant.

Kit Tan, D. Perdetzoglou & Th. Raus

Compositae

Anacyclus radiatus Loisel.

+ **Al:** Albania, District of Vlorë: Uji i Ftohte, 14.5.1976, *Qosja* (Herb. Tirana). – Yellow-flowered annual occurring on several coastal roads leading to Vlorë. Distributed in the W and Central Mediterranean region from Portugal to W Greece. Not mentioned for Albania by Tutin (in Tutin & al., Fl. Eur. 4: 168. 1976, following Hayek in Repert. Spec. Nov. Regni Veg. Beih. 30/2: 632. 1931), and likewise omitted from the recent Albanian basic flora of Demiri (Fl. Eksk. Shqipërisë, 1983).

Kit Tan & A. Mullaj

Borrchia frutescens (L.) DC.

P **IJ:** Israel: Pleshet, Tel Aviv coast, 1 km S of Reading Power Station, crevices of side walk at the spray zone, 6.6.2000, *Danin* (HUI; det. Hind). – A native of North America, known under the vernacular name of “sea ox-eye” and found from Virginia to Florida and Texas where it is common on sandy seashores and in salt marshes. It is not cultivated as an ornamental, and it is unknown how it was introduced into Israel, where it has a high potential of becoming an established alien. Being resistant to the sea-spray, as is evidenced by its origin and by the robust tufts seen at the above collection site, it may likely spread in this habitat in the years to come.

A. Danin & D. J. N. Hind

Carlina graeca Heldr. & Sart.

+ **Al:** Albania, District of Vlorë: pass of Llogara (from Orikum to Himarë), alt. 1250 m, heavily grazed *Phlomis fruticosa* garrigue in the montane *Pinus nigra* belt, carstic limestone rock, 28.8.2000, *Raus 23971* (B). – Not given for Albania by Meusel & Kästner (in Österr. Akad. Wiss. Math.-Naturwiss. Kl. Denkschr. 128: 196, 216. 1994), and likewise omitted from recent Albanian basic floras (Paparisto & al., Fl. Tiranës, 1965; Demiri, Fl. Eksk. Shqipërisë, 1983). According to Meusel & Kästner (l.c.), the Ionian island of Kerkira (Korfu) was at the northernmost edge of the known range of the species. As far as observed, the population in the SW facing mountainous hinterland of the “Albanian Riviera” (Rreza e Kanalit, Mal e Çikës) belong to the few-headed, less robust *C. graeca* var. *rothii* (Boiss.) Meusel & Kästner of higher altitudes, also known to occur in the Ionian Islands.

Th. Raus

Erigeron macrophyllus Herbich

+ **Bu, Ju:** Bulgaria: Rodopi Mts, ridge Radjuva planina (Djuva planina) above Zdravec (24°47'E, 41°43'N), stony grassland along the road between Laki and Momeilovci in the valley of the Džurkovska river, alt. 1400-1450 m, 25.7.1998, *Štîpánek* (PRA);

Croatia: Velebit Mts, Goli vrh near Brušane, 8.1906, *Lengyel 166728* (BP); *ibid.*, Mt Orljak near Brušane, alt. 1100 m, 10.8.1906, *Lengyel 275829 & 275830* (BP); *ibid.*, at forest margin between Sveti Rok and Mali Alan, 24.7.1907, *Lengyel 274862* (BP); Jugoslavia, Crna Gora: Goransko, Mt Zakameo above Piva monastery, 8.1905, *Rohlens* (PRC); all det. Šída. – An E Alpine and Carpathian distribution was attributed to this species in the past (Pawłowski in *Fragm. Florist. Geobot.* 16: 258. 1970; Gutermann in *Phyton* (Horn) 16: 78. 1974). According to present knowledge, however, it ranges from the Caucasus (Cvelev in *Bjull. Moskovsk. Obšč. Isp. Prir., Otd. Biol.* 98: 99-108. 1993) and Russia north of Moscow (several unpublished collections in LE; det. Šída) to the mountains of the Balkan Peninsula. The localities above cited denote its southern and western distribution limit. O. Šída

***Pulicaria inuloides* (Poir.) DC.**

+ **IJ:** Jordan, Edom: Ain Fidan, 40 km S of Safi, near streaming fresh water, 17.7.2000, *Danin 2K0309* (HUJ; confirm. Lack). – The specimens of *Pulicaria* on which Feinbrun-Dothan (*Fl. Palaest.* 4: 318. 1978) based her treatment of *P. inuloides* are in fact *P. arabica* (L.) Cass. This makes the specimen collected at Ain Fidan the first reliable record of this species from the Flora Palaestina area.

A. Danin & H. W. Lack

***Pulicaria vulgaris* Gaertn.**

+ **Cr:** Greece, Crete, Nomos and Eparchia of Lasithi: Lasithi plain, Ajos Charalambos (35°11'N, 25°26'E), alt. c. 840 m, in a small, loamy, dried spring pond with *Mentha pulegium* subsp. *erinoides* (Heldr.) Kokkini, *Convolvulus arvensis* L., *Scilla* aff. *autumnalis* L., *Hordeum geniculatum* All., etc., 5.6.1997, *Böhling 6193* (B); *ibid.*, 10.10.1997, *Böhling 6597, 6598* (B); *ibid.*, 28.6.1999, *Böhling 10262* (B). – The occurrence in Crete of this species has been questioned by Turland & al. (*Fl. Cretan Area*: 70. 1995) and by Jahn & Schönfelder (*Exkursionsfl. Kreta*: 310. 1995). The recently discovered population, monitored from 1997 to 1999, consists of about fifty plants covering a seasonally wet place of c. 5 m² only. N. Böhling

***Tripleurospermum oreades* (Boiss.) Rech. f.**

+ **Gr:** Greece, Thrace, Nomos of Evros, Eparchia of Souflion: 17.5 km from Dadia along the road to Loutros (41°06'N, 26°06'E), alt. 400 m, serpentine, open, gravelly patches and small stream in deciduous oak woodland, locally gregarious in damp meadow by the stream, 7.5.2000, *Strid & Lassen 50427* (B, C, G, LD, herb. Kit Tan); *id.*, Eparchia of Orestias: c. 4 km WNW of Pendalofos (41°39'N, 26°06'E), alt. 400 m, schist, patches of meadow in deciduous woodland, 10.5.2000, *Strid & Lassen 50710* (B,C, G). – This is the first European record of a species which is widespread and variable in Turkey, being recorded as far west as A1(A) Çanakkale (see Davis, *Fl. Turkey* 5: 299. 1975). The somewhat similar *Tripleurospermum caucasicum* (Willd.) Hayek, primarily a species of E Anatolia, the Caucasus and N Iran, has been reported from high altitudes in Bulgaria and Albania, but its European records need critical revision. It differs from *T. oreades*, i.a., in the longer, dark-tipped corona of its achenes.

A. Strid & P. Lassen

Cruciferae

***Malcolmia graeca* subsp. *bicolor* (Boiss. & Heldr.) Stork**

– **Al:** Stork (in *Opera Bot.* 33: 39, fig. 13. 1972) reports this taxon to occur in the Peloponnese, western mainland Greece, the Ionian Islands (Levkas), and S Albania. How-

ever, all material we have seen so far from S Albania, are of a taxon which may well represent an undescribed fourth subspecies of the *Malcolmia graeca* complex in Greece, the other three being *M. graeca* Boiss. & Spruner subsp. *graeca*, *M. graeca* subsp. *bicolor* and *M. graeca* subsp. *hydraea* (Heldr. & Halácsy) Stork. This additional subspecies occurs also in western mainland Greece and is subject to current further study by O. Georgiou (University of Patras, pers. comm., 2000). *M. graeca* subsp. *bicolor* thus is absent from Albania, actually representing a Greek endemic which occurs mainly in the Peloponnese and Sterea Ellas, at montane to submontane levels from 800-2200 m, occasionally lower in ravines and along river banks.

Kit Tan & A. Mullaj

Labiatae

Ajuga salicifolia subsp. *bessarabica* (Săvul. & Zahar.) P.W. Ball

- + **Gr:** Greece, Thrace, Nomos of Evros, Eparchia of Orestias: 4 km from Pendalofos along the road to Petrota (41°40'N, 26°09'E), alt. 240 m, fallow fields, 10.5.2000, *Strid & Lassen 50746* (B, C, G, LD, herb. Kit Tan). – Previously known in the Black Sea region from E Romania to Turkey-in-Europe. In the Greek locality it was growing with some other rare weeds, e.g. *Bellevallia ciliata* (Cirillo) Nees (*Strid & Lassen 5074*, C, LD).
A. Strid & P. Lassen

Leguminosae

Acacia cyanophylla Lindl.

- N Al:** Albania, District of Vlorë: Vlorë, coastal sand dunes, 17.9.2000, *Mullaj obs.* – A xenophyte originating from Western Australia, planted as an ornamental and for stabilising coastal dunes along the bay of Vlorë, now established. Often mistaken for *A. saligna* (Labill.) H. Wendl. which has smaller capitula.
Kit Tan & A. Mullaj

Astragalus ponticus Pall.

- + **Gr:** Greece, Makedonia, Nomos of Serres, Eparchia of Sintiki: c. 3 km NNE of Sidirokastro, alt. 200-250 m, sandy marl at base of limestone outcrops, 18.6.2000, *Kit Tan & Vold 23550* (C, herb. Kit Tan); *ibid.*, 2 km from Fea Petra to Sidirokastro, alt. 170 m, roadside ditch, 20.5.1993, *Kit Tan & Vold 13132* (herb. Kit Tan); *ibid.*, 1.5 km W of Fea Petra, alt. 200 m, Straßenböschung in *Quercus-coccifera*-Gebüsch, 16.6.1990, *Willing 10407* (B). – New to Greece; rarely collected despite its striking appearance. This *Astragalus*, described by Pallas 200 years ago, is an erect, conspicuous perennial to 1 m tall, with large lemon-yellow flowers in dense ovoid racemes and a calyx slightly inflated in fruit. Its known distribution ranges from Bulgaria to SE Russia.

Kit Tan & G. Vold

Genista sessilifolia DC.

- + **Gr:** Greece, Makedonia, Nomos and Eparchia of Kozani: by the main road from Kozani to Servia, above the shore of the Aliakmon dam, whitish loam, road embankment and dry meadows, 19.6.1998, *Strid & al. 46843* (ATH, B, C, G, LD); *ibid.*, near to the NW shore of the dam, alt. 300 m, eroded marly hill slopes, 25.5.1999, *Strid & al. 48441* (C, G, herb. Kit Tan). – Previously known from the F.Y.R. Makedonija, Bulgaria and W Anatolia. The previous reference for “Gr” in Greuter & al. (Med-Checklist 4: 101. 1989, based on an undocumented note in Jordanov, Fl. Nar. Rep. Bălg. 6: 61. 1976) was erroneous. We have gone through all relevant herbaria in Bulgaria and elsewhere and found that there is no material from Greece in any of them, only collections from Bulgaria by Urumov, Stojanov, Kitanov, etc. Cited localities in Stojanov & al. (Fl.

Bälg., ed. 4: 578. 1972) and Jordanov (l.c.) are all on Bulgarian territory, not in Greece.
Kit Tan & J. Zieliński

Lotus cytisoides L.

- + **Al:** Albania, District of Sarandë: Ksamil, coastal rocks, alt. 2-3 m, 19.5.1986, *Mullaj* (Herb. Tirana). – Widespread in the Mediterranean region but not recorded for Albania by Ball (in Tutin & al., Fl. Eur. 2: 176. 1968), and likewise omitted from recent Albanian basic floras (Demiri, Fl. Eksk. Shqipërisë, 1983; Qosja & al., Fl. Shqipërisë 2. 1992).
Kit Tan & A. Mullaj

Melilotus officinalis (L.) Desr.

- P **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Kidonia: below Prases (35°23'N, 23°51'E), alt. 400 m, in a roadside ditch by a schistose slope damp with seeping water, 24.10.1999, *Böhling 10405* (B). – The first record of the species from the Cretan area, but its naturalised status is so far uncertain. In the same place, *Melilotus albus* Medik. had been collected on Crete for the first time (for ecological details see Böhling in Willdenowia 29: 59. 1999).
N. Böhling

Onobrychis viciifolia Scop.

- D **Gr:** Greece, Thrace, Nomos of Evros, Eparchia of Alexandroupolis: 2 km W of Feres (40°53'N, 26°08'E), alt. 60 m, in gravel by the margins of the main road, 7.5.2000, *Strid & Lassen 50727* (C, G). – Cultivated for fodder and widely naturalised in Central Europe, but not reported from Greece so far.
A. Strid & P. Lassen

Lythraceae

Lythrum tribracteatum Spreng.

- + **Cr:** Greece, Crete, Nomos of Iraklion, Eparchia of Viannos: S side of the Dikti Mts, Omalos (Amalos) plain c. 5 km NE of Viannos (35°04'N, 25°27'E), alt. 1300 m, on seasonally flooded ground dominated by *Hordeum geniculatum* All., *Cichorium spinosum* L. and *Cynodon dactylon* (L.) Pers., with *Juncus bufonius* L., *Lolium rigidum* Gaudin subsp. *rigidum* and *Taraxacum* cf. *cylleneum* Fűrnkranz, 2.11.1999, *Böhling & Raus 10517* (B). – Not previously recorded from the Cretan area. The dwarf, 1-2 cm tall annual differs from *Lythrum borysthenicum* (Schrank) Litv., occurring in a similar habitat on the Omalos plain of Nomos Chania (see Turland & al., Fl. Cretan area: 316, map 944. 1993), in its narrowly cylindrical fruiting hypanthium (Castroviejo & al., Fl. Iber. 8: 22, fig. 1h. 1997).
N. Böhling & Th. Raus

Onagraceae

Epilobium roseum subsp. *subsessile* (Boiss.) P. H. Raven

- + **AE:** Greece, East Aegean Islands, Nomos of Dodekanisos, Eparchia of Rhodos: Island of Rhodos, between Laerma and Apollonas (36°12'N, 27°58'E), alt. 110 m, pioneer community of wet places in a river bed (with *Platanus orientalis* L. and *Liquidambar orientalis* Mill. on the banks), on nutrient-poor, carbonate-rich, loamy sand, together with *Crypsis schoenoides* (L.) Lam., *Equisetum ramosissimum* Desf., *Lythrum hyssopifolia* L., *Polypogon maritimus* Willd., *Veronica anagalloides* Guss., etc., 16.8.1998, *Böhling 8839* (B). – This subspecies replaces *Epilobium roseum* Schreb. subsp. *roseum* in E Europe and the Near East (Chamberlain & Raven in Davis, Fl. Turkey 4: 192. 1972). It is given only for Bulgaria, Turkey, and the Crimea in Greuter & al. (Med-Checklist 4: 252. 1980). It is here reported for the first time from Greece.
N. Böhling & S. Snogerup

*Polygonaceae**Rumex obtusifolius* subsp. *subalpinus* (Schur) Rech.f.

- + **Cr**: Greece, Crete, Nomos of Chania, Eparchia of Selinos: Anisaraki (35°20'N, 23°45'E), alt. 550 m, near a farmyard, along a ditch with running water, a population of some square meters' size with up to 1.5 m tall, vigorous plants, together with *Scrophularia peregrina* L., 19.5.1997, *Böhling* 5848 (B). – The subspecies occurs from the N Balkan Peninsula to Israel and N Iran. In Greece it is scattered, with the southernmost occurrence hitherto known being in the S Pindos range (Snogerup in Phitos & al., Fl. Hellen.1: 102 & map 191. 1997). N. Böhling & S. Snogerup

*Rafflesiaceae**Cytinus hypocistis* (L.) L. subsp. *hypocistis*

- **IJ**: This subspecies, characterised by orange scale leaves and yellow petals, has not been seen so far from the Flora Palaestina area. Crimson-scaled plants from Mt Carmel, misidentified as *C. hypocistis* subsp. *orientalis* Wettst. by Zohary (Fl. Palaest. 1: 50. 1966), were synonymised with *C. hypocistis* (L.) L. and thence erroneously included, for “IJ”, under *C. hypocistis* subsp. *hypocistis* in Greuter & al. (Med-Checklist 4: 385. 1989). See also the following note. A. Danin & Th. Raus

Cytinus hypocistis subsp. *clusii* Nyman

- + **IJ**: According to Davis (Fl. Turkey 7: 550. 1982), the white-flowered “*C. hypocistis* subsp. *kermesinus* (Guss.) Wettst.” (a synonym of subsp. *clusii* or, if treated as a separate species as in Valdés & al., Fl. Vasc. Andalucía Occ. 2: 217-218. 1987, of *C. ruber* (Fourr.) Kom.) is host-specific to *Cistus creticus* L. The specimens of *Cytinus* growing in Israel are chiefly parasites of *Cistus creticus* L., have crimson scales, and flowers with white to whitish-cream corollas (see colour photograph in Feinbrun-Dothan & Danin, Anal. Fl. Eretz-Israel: 966. 1991). This is therefore the only *Cytinus* taxon known with certainty in the Flora Palaestina area. A. Danin & Th. Raus

*Rosaceae**Amelanchier parviflora* subsp. *chelmea* (Halácsy) Ziel., **comb. & stat. nov.** ≡ *A. cretica* var. *chelmea* Halácsy, Consp. Fl. Graec. 1: 542. 1900 ≡ *A. chelmea* (Halácsy) Browicz in Arbor. Kórnickie 16: 21. 1971.

Treated as a distinct species by Browicz, but better regarded as a subspecies of the mainly W Anatolian montane species, *A. parviflora* Boiss. The leaves of the latter are larger and more serrate. J. Zieliński

Aphanes floribunda (Murb.) Rothm.

- + **AE, Cr**: Greece, Crete, Nomos of Chania, Eparchia of Sfakia: Aradena (35°13'N, 24°04'E), in the ruins of the old village, alt. 500-550 m, 17.5.1997, *Böhling* 5790 (B); id., Nomos of Rethimnon, Eparchia of Amaron: W Kedros (35°12'N, 24°35'E), alt. 1100 m, S exposed calcareous ledges, 12.5.1997, *Böhling* 5645 (B); id., Eparchia of Milopotamos: Psiloritis, Iakinthos S of Zominthos (35°15'N, 24°51'E), alt. c. 1200 m, on sandy, carbonate-free colluvium in a small, heavily grazed polje dominated by *Ononis spinosa* subsp. *diacantha* (Rchb.) Greuter and *Carlina curetum* Halácsy subsp. *curetum*, with *Cerastium semidecandrum* L., *Myosotis incrassata* Guss., *Myosotis litoralis* Fisch., *Stellaria pallida* (Dumort.) Crépin, *Veronica arvensis* L. and many other annuals, 12.5.1999, *Böhling* 9975a (B); id., East Aegean Islands, Nomos of Dodekanisos, Eparchia of Rhodos: Island of Rhodos, Mt Attaviros, Lakis (36°12'N, 27°52'E), alt. 1150 m, SW exposed calcareous screes, 6.5.1999, *Böhling* 9790 (B); all rev. & det. W.

Lippert. – Besides *Aphanes arvensis* L. and *A. minutiflora* (Azn.) Holub (see Bergmeier in Willdenowia 28: 169-170. 1998), this is the third and probably most widespread species of the genus on Crete. From the East Aegean Islands only *A. arvensis* had been reported so far (in Davis, Fl. Turkey 4: 105-106. 1972).
N. Böhling

Salicaceae

Salix pedicellata Desf.

+ **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Kidonia: Fasas valley between Skines and Nea Roumata, side valley at the northern foot of hill Tsandiria (35°24'20"N 23°52'15"E), 3-4 m tall shrub by a shady brook, together with *Platanus orientalis* L., *Hypericum hircinum* subsp. *albimontanum* (Greuter) N. Robson, and *Carex cretica* Gradst. & J. Kern, 16.5.1994, *Jahn* (herb. R. Jahn); *ibid.*, 8.4.1995, *Jahn* (herb. R. Jahn); *ibid.*, 29.3.1996, *Jahn* (herb. R. Jahn); confirm. K. I. Christensen. – In Greece previously known only from the East Aegean Island of Ikaria (*Rechinger 54177*, B; Rechinger in *Akad. Wiss. Wien, Math.-Naturwiss. Kl. Denkschr.* 105(1): 96. 1944; Phitos & al., *Fl. Hellen.* 1: 33. 1998; Browicz & Zieliński in *Arbor. Kórnickie* 41: 39. 1996).
R. Jahn

Sapindaceae

Cardiospermum halicacabum L.

P **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Selinos: Plemeniana (35°19'N, 23°43'E), alt. 320 m, rooting in a ditch and climbing up a SW exposed schistose bank in the village, 30.7.1998, *Böhling 8580* (B); *id.*, Nomos of Iraklion, Eparchia of Kenourgios: Lendas (34°56'N, 24°55'E), alt. 40 m, ruderal in fissures of a concrete path in the village, 2.1.2000, *Böhling 10629* (B). – Both collections refer to single spontaneous plants. This xenophytic climber from tropical America, producing ornamental, inflated, balloon-like fruits, obviously tends to spread and become naturalised in Crete.
N. Böhling

Solanaceae

Physalis angulata L.

P **Al:** Albania, District of Vlorë: Vlorë, cultivated fields around the city, 10.6.1976, *Qosja* (herb. Tirana). – Native to tropical America, escape from cultivation. Fruits edible. First documentation of an adventive occurrence in Albania, but status of naturalisation unclear so far.
Kit Tan & A. Mullaj

Umbelliferae

Bupleurum euboicum Beauverd

+ **AE:** Greece, Rhodos, Nomos of Dodekanisos, Eparchia of Rhodos: Kattavia, brackish alluvial plain S of the village (35°56'N, 27°46'E), alt. c. 20 m, community dominated by *Limonium virgatum* (Willd.) Fourr. and *Puccinellia distans* (L.) Parl. (s.l.), with *Polygonum equisetiforme* Sm., etc., on slightly basic silty clay, 17.8.1998, *Böhling 8867* (B); *id.*, community of *Plantago crassifolia* Forssk. and *Puccinellia distans* (s.l.), with *Salsola soda* L., *Mesembryanthemum nodiflorum* L., etc., on alkaline clayey loam, 17.8.1998, *Böhling obs.* – The species, described from Evvia, is given as endemic to “mainland” Greece, NW and SW Anatolia by Carlström (1987: 84). It is known also to occur on several other Aegean islands, e.g. in the Cyclades, as well as Bulgaria. It is easily confused with *Bupleurum semicompositum* L.

N. Böhling & S. Snogerup

Peucedanum chryseum (Boiss. & Heldr.) D. F. Chamb.

- N AE:** Greece, East Aegean Islands, Nomos of Dodekanisos, Eparchia of Rhodos: Island of Rhodos, between Embonas and Sianna (36°13'N, 27°50'E), alt. 380 m, on schistose substrate, abandoned vineyard and roadsides, a rich population of a hundred individuals, 9.4.1998, *Böhling 7606* (B), *ibid.*, 16.8.1998, *Böhling 8863* (B); *id.*, N slope of Mt Profitis Ilias (36°16'N, 28°00'E), alt. 350 m, calcareous screes in open *Pinus brutia* forest at a roadside, 17.8.1998, *Böhling 8879* (B); *id.*, between Kamiros and Kritina (36°16'N, 27°49'E), alt. 50 m, on limestone, ruderal by the roadside, 20.6.1999, *Böhling 10146* (B); *id.*, Embonas, SW of the village (36°13'N, 27°15'E), alt. 450 m, roadside, 21.6.1999, *Böhling obs.* – *Peucedanum chryseum*, not mentioned for Rhodos by Carlström (Surv. Fl. Phytogeogr. Rodhos, 1987) and hitherto considered an endemic of W, S and Central Anatolia (Davis, Fl. Turkey 4: 476. 1972), is closely related to the Balkan endemic *P. vittijugum* Boiss. which is reported in the Aegean from Evvia (Rechinger in Bot. Jahrb. Syst. 80: 367. 1961). The plants are biennial or perennial, producing large rosettes and stems up to 1.5 m tall. On Rhodos, *P. chryseum* is observed in man-made sites, especially on roadsides. As it is unlikely that it has been overlooked in the past, it was presumably introduced and became naturalised only recently on Rhodos. The species seems sensitive to grazing and is mostly found in the relatively humid NW part of the island. N. Böhling

*Violaceae****Viola herzogii*** (W. Becker) Bornm.

- + Gr:** Greece, Makedonia, Nomos of Pella, Eparchia of Almopia: WSW of Loutra (Loutra Arideas), southern foothills of Mt Voras (40°58'N, 21°54'E), alt. 600-800 m, limestone ridge with open deciduous scrub and *Pinus nigra* woodland on the western side of a large ravine, 18.5.1999, *Strid & Kit Tan 49369* (C, herb. Kit Tan); *ibid.*, 27.5.1999, *Strid & al. 48659* (C, G). – A rare and local species, so far only known from a few localities in the F.Y.R. Makedonija. The Greek records form a natural extension of its range. *Viola herzogii* is a tap-rooted, slightly suffrutescent perennial with narrow, linear to linear-oblong leaves. In Greece the flowers are yellow with a paler lower petal; in the F.Y.R. Makedonija the colour is reported to vary. A. Strid & Kit Tan

*Cyperaceae****Cyperus michelianus*** (L.) Link

- + Cr:** Greece, Crete, Nomos of Chania, Eparchia of Apokoronas: NW shore of Lake Kourna (35°20'13"N, 24°16'28"E), alt. 20 m, 31.05.1999, *Wolf & Boteva 5458* (Herb. Medit. Agron. Inst. Chania). – The species occupies a temporarily flooded flat area of wet sandy to clayey soil, 12-15 m behind the belt of *Vitex agnus-castus* L. that surrounds the lake. The plants grow in an Isoeto-Nanojuncetea community, together with *Isoetes histrix* Bory, *Cyperus fuscus* L., *Mentha pulegium* L., *Crypsis schoenoides* (L.) Lam., *Ranunculus marginatus* d'Urv., etc. Until now, records from EtoIoakarnania in Sterea Ellas were the southernmost ones in Greece (see Raus in Bot. Chron. 10: 573-575. 1991). D. Boteva & W. Wolf

Isolepis cernua (Vahl) Roem. & Schult.

- + Al:** Albania, District of Kavajë: Golem, sand dunes with wet places by the sea, alt. 1-5 m, 28.6.1986, *Mullaj* (Herb. Tirana). – Presence confirmed; doubtfully recorded from Albania by De Filippis (in Tutin & al., Fl. Eur. 5: 279. 1980). Kit Tan & A. Mullaj

Isolepis setacea (L.) R. Br.

- + **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Kidonia: between Papadiana and Nea Roumata (35°25'N, 23°51'E), alt. 280 m, wet ditch on schistose substrate, with *Trifolium ligusticum* Loisel., 19.5.1999, *Böhling 10048* (B). – Not previously recorded from the Cretan area; differing by its longitudinally ribbed and transversely striate nut from *Isolepis cernua* (Vahl) Roem. & Schult., which is fairly widespread in W and Central Crete and Karpathos (see Chilton & Turland, Fl. Crete, Suppl.: 93 & map p. 37. 1997). N. Böhling

*Gramineae**Catapodium marinum* (L.) C.E. Hubb.

- + **Al:** Albania, District of Sarandë: Ksamil, coastal rocks, alt. 2-3 m, 19.5.1986, *Mullaj* (Herb. Tirana). – No previous records for Albania of this species which is widespread in southern and western coastal areas of Europe. Kit Tan & A. Mullaj

Eragrostis leptocarpa Benth.

- A **Gr:** Greece, Ionian Islands, Nomos & Eparchia of Kerkira: Island of Kerkira (Korfu), town of Korfu, English Graveyard, 11.11.1994, *Borkowsky* (herb. Borkowsky, det. Scholz). – An alien of Australian origin, which in Europe was hitherto only known as a rare casual introduced with sheep wool. H. Scholz

Eragrostis virescens J. Presl

- A **IJ:** Jordan: Edom, Ain Fidan, 40 km S of Safi, near streaming fresh water, 17.7.2000, *Danin 2K0316* (HUI; det. Scholz). – A grass of South American origin, sometimes ranked as *Eragrostis mexicana* subsp. *virescens* (J. Presl) Koch & Sanchez, which now grows in tropical and subtropical countries around the globe (see Martini & Scholz in Willdenowia 28: 59-63. 1998) but was not recorded before from the Flora Palaestina area. It adds to the many annual species of adventive *Eragrostis* that prosper in open habitats such as irrigated man-managed soils. The population reported here was discovered in a natural habitat much resembling irrigated agricultural land. A. Danin & H. Scholz

Panicum hillmanii Chase

- A **Gr:** Greece, Ionian Islands, Nomos & Eparchia of Kerkira: Island of Kerkira (Korfu), town of Korfu, English Graveyard, 11.11.1994, *Borkowsky* (herb. Borkowsky, det. Scholz). – A species of western North America resembling *Panicum capillare* L. (Hitchcock & Chase, Man. Grasses U.S., ed. 2. 1951). In warmer regions of Europe it occurs with increasing frequency as a weed in cornfields (*Zea mays* L.). H. Scholz

Parapholis filiformis (Roth) C.E. Hubb.

- + **Al:** Albania, District of Kavajë: Golem, sand dunes with wet places by the sea, alt. 1-5 m, 28.6.1986, *Mullaj* (herb. Tirana). – Only doubtfully recorded from Albania by Tutin (in Tutin & al., Fl. Eur. 5: 243, 1980). Kit Tan & A. Mullaj

Parapholis marginata Runemark

- + **IJ:** Israel: Coastal Galilee, Nahariya, bank of river, 17.4.1941, *Feinbrun 38939* (HUI); Acre Plain, 18.5.1924, *Eig 38950* (HUI); coast of Carmel, Tira, sand on the beach, 25.4.1923, *Eig & Factorovsky 38960* (HUI); Sharon, Poleg beach, 9.5.1985, *Liston 38967* (HUI); Pleshet, northern Tel Aviv beach in the spray zone, 6.6.2000, *Danin* (HUI); det. H. Scholz. – This species, occurring all along the Mediterranean shores of

Israel but previously not reported from the Flora Palaestina area, was certainly overlooked and is not a recent introduction. Selected specimens, one per district, are listed above in a north-to-south sequence in order to complete Runemark's map (in Bot. Not. 115: 9. 1962).
A. Danin & H. Scholz

Sesleria alba Sm.

+ **Gr:** Greece, Thrace, Nomos of Evros, Eparchia of Souflion: 17.5 km from Dadia along the road to Loutros (41°06'N, 26°06'E), alt. 400 m, serpentine, bushy places in deciduous oak woodland by a small brook, 7.5.2000, *Strid & Lassen 50444* (C, LD). – The species was noted by Smith (Fl. Graec. Prodr. 1: 52. 1806) and illustrated in Sibthorp (Fl. Graec. 1: t. 72. 1808), based on material collected by Sibthorp in the Belgrade forest near Istanbul. It is known from W and Central Anatolia, SW Bulgaria and the East Aegean island of Samos (Davis, Fl. Turkey 9: 525. 1989). Our record from NE Greece is thus a natural extension of its range.
A. Strid & P. Lassen

Sporobolus arenarius (Gouan) Douval-Jouve

+ **Al:** Albania, District of Vlorë: Sand dunes along Adriatic coast around Vlorë, common, 20.7.1983, *Mullaj obs.*; id., Distrikt of Lushnje, Divjakë, sandy beach with small coastal dunes, alt. 2 m, 27.8.2000, *Raus 23968* (B; confirm. H. Scholz). – Erroneously omitted from Albania by Hansen (in Tutin & al., Fl. Eur. 5: 258. 1980, as *S. pungens* [Schreb.] Kunth), disregarding an old record for Albania by Hayek (in Repert. Spec. Nov. Regni Veg. Beih. 30/3: 337. 1932).
A. Mullaj & Th. Raus

Hydrocharitaceae

Elodea canadensis Michaux

N Al: Albania, District of Pogradec: submerged in stream of Drilon, 20.7.1996, *Mullaj obs.*; ibid., near Tushemisht E of Pogradec, fully established in brooks flowing into the Lake of Ochrid, alt. 690 m, 22.8.2000, *Raus obs.* – Omitted from Albania although given as naturalised in adjacent Yugoslavia and Greece by Dandy (in Tutin & al., Fl. Eur. 5: 5. 1980).
A. Mullaj & Th. Raus

Halophila stipulacea (Forssk.) Asch.

P Al: Albania, District of Sarandë: Coast near the town of Sarandë, plants washed ashore, sea level, 12.9.1984, *Mullaj obs.* – Marine angiosperm from the Indian Ocean, entering the Red Sea and spreading in the Mediterranean Sea via the Suez canal soon after the latter was opened in 1869. Reported from Greece and the Aegean by Dandy (in Tutin & al., Fl. Eur. 5: 5. 1980); first observed in Albanian waters at Sarandë in July 1979 by L. Kashta.
Kit Tan & A. Mullaj

Juncaceae

Juncus subnodulosus Schrank

+ **Al:** Albania, District of Kavajë: Near Kala e Turres, wet places, alt. 5-10 m, 28.5.1985, *Mullaj* (Herb. Tirana). – Previously not recorded from Albania. Kit Tan & A. Mullaj

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