Med-Checklist Notulae, 18

Authors: Werner Greuter, and Thomas Raus
Source: Willdenowia, 29(1/2) : 51-67
Published By: Botanic Garden and Botanical Museum Berlin (BGBM)
URL: https://doi.org/10.3372/wi.29.2905
Abstract

Continuing a series of miscellaneous contributions, by various authors, where hitherto unpublished data relevant to the Med-Checklist project are presented, this instalment deals with the families Boraginaceae, Caryophyllaceae, Chenopodiaceae, Compositae, Dipsacaceae, Euphorbiaceae, Frankeniaceae, Labiatae, Leguminosae, Myrtaceae, Rubiaceae, Solanaceae, Zygophyllaceae; Alismataceae, Cyperaceae, Gramineae, Juncaceae, and Liliaceae. It includes new country and area records, taxonomic and distributional considerations. New names and combinations are validated in the genera Astragalus and Onobrychis.

Notice


Boraginaceae

Myosotis speluncicola (Boiss.) Rouy

Greece, Epirus, Nomos of Ioannina, Eparchia of Dodona: Mt Timfi near the Vikos balcony (39°53’N, 20°45’E), rocky slopes and mixed deciduous woodland over limestone, alt. 1300 m, 21.5.1999, Strid & al. 48091 (C, G, herb. Tan). – New to Greece. This slender, delicate annual was found in deep, shady crevices and under overhanging rocks. The corolla is white, sometimes pale blue on drying. The species has a very scattered distribution (see, e.g., Grau in Mitt. Bot. Staatssamml. München 7: 82-85. 1968; Greuter & al., Med-Checklist 1: 100. 1984), occurring in SE France (Alpes-Maritimes), Italy (central Apennines), former Jugoslavia (F.Y.R. Makedonija), S Anatolia (Cilician Taurus), and possibly extending to N & W Iran; it may thus be an ancient relict element, surviving in caves or on very shady rock ledges, hence the specific epithet. Our specimens match a syntype from the Cilician Taurus (Balansa 554, C) and also a specimen from Alpes-Maritimes, SE France (Kapp 7734, C).

A. Strid & Kit Tan
Solenanthus scardicus Bornm.

+ Gr:

Caryophyllaceae

Stellaria media (L.) Vill.

+ Cr:
Greece, Crete, Nomos of Chania, Eparchia of Kissamos: between Kambos and Keramoti (35°23′01″N, 23°33′56″E), ruderal places, shaded by Platanus orientalis, G. lucidum and Aetheorhiza bulbosa subsp. microcephala, schist, alt. 380 m, 13.3.1998, Böhling 7065 (B); ibid., places rich in nitrogen and dominated by Urtica pilulifera, U. urens, Lamium bifidum subsp. bifidum, Galium aparine, etc., on schistose substrate, alt. 380 m, 13.3.1998, Böhling obs.; id., Eparchia of Selinos: Omalos plain, Seliniotikos Jiros (35°19′22″N, 23°53′30″E), moist pastures with Ranunculus ficaria subsp. chrysocephalus, alt. 1040 m, 15.3.1998, Böhling 7093 (B); id., Eparchia of Sfakia: Askifou (35°17′28″N, 24°11′16″E), loamy fields with Ranunculus ficaria subsp. chrysocephalus and Poa infirma, alt. 700 m, 26.2.1999, Böhling 9490 (B); id., Nomos of Lasithi, Eparchia of Ierapetra: Thripti (35°04′54″, 25°51′22″E), abandoned, formerly irrigated vegetable field, in the shade of Platanus orientalis trees, dolomitic substrate, alt. 700 m, 24.3.1998, Böhling & Raus 7220 (B); ibid., abandoned vineyard dominated by Urtica urens, Poa infirma, Oxalis pes-caprae, etc., dolomitic substrate, alt. 700 m, 24.3.1998, Böhling & Raus 7219 (B). – Although given for Crete by earlier authors (e.g., Jahn & Schönfelder, Exkursionsfl. Kreta: 80. 1995), Stellaria media s.str. was excluded from the Cretan area by Strid (in Fl. Hellen. 1: 195 & map 369. 1997), obviously due to the lack of substantiating herbarium material. In fact, the common chickweed is frequently found in suitable man-made habitats on Crete from late winter to early spring.

Chenopodiaceae

Atriplex mollis Desf.

+ Cr:
corymbosa Desf. (see below) on Gavdopoula lends strong support to nature conservation demands for this islet, which is currently much discussed among nature conservationists after plans came to light of its total transformation into a gigantic container ship terminal.

E. Bergmeier, N. Böhling, Ch. Fournaraki & P. Gotsiou

Chenopodium urbicum L.

+ IJ: Israel: Kinnroth Valley, environs of Almagor, 8.9.1967, Danin & Zohary (HUJ; confirm. Uotila). – This species plays an important role in the temporary colonizing vegetation of the coast of the Sea of Galilee, following the retreat of the desiccating lake. Together with the rare Chenopodium rubrum L. its patches cover considerable areas. When the rainy season starts in Israel, the entire area will again be covered by water.

A. Danin & P. Uotila.

Compositae

Anthemis wiedemanniana Fisch. & C. A. Mey.

A Gr: Greece, W Makedonia, Nomos & Eparchia of Grevena: SW foothills of Mt Vourinos, c. 2 km NW of Varis (40°09'N, 21°39'E), along road to a small iron mine, rocky slopes with open scrub dominated by Quercus pubescens and Buxus sempervirens, on serpentine, alt. 800-1000 m, 25.5.1999, Strid & al. 48389 (C). – New to the “Flora europaea” area. This distinctive species is widespread in Turkey, extending to the East Aegean Islands (Grierson & Yavin in Davis, Fl. Turkey 5: 219-220. 1975). It was collected on Lesvos by Rechinger in 1934 (see Rechinger in Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr. 105(1): 624. 1943) and its occurrence on that island has been confirmed by Hansen & Nielsen (18.5.1993, Hansen & Nielsen 8575, B, C). There are also three collections by Hansen from the island of Kos (Hansen 465, 757 & 933, C). Our collection by the students of the University of Copenhagen during an excursion to NW Greece is the first from the Greek mainland. The disjunction is similar to that of Fumana aciphylla Boiss., also collected in the same locality by that student excursion (25.5.1999, Strid & al. 48380, ATH, C, G, LD, herb. Tan). The latter is widespread in Turkey too, and has its only European locality on Mt Vourinos (see also Hagemann & Raus in Willdenowia 14: 52. 1984).

A. Strid & Kit Tan

Flaveria bidentis (L.) Kuntze


Th. Georgiadis & A. Strid

Galinsoga parviflora Cav.


Kit Tan, A. Mullaj & G. Vold

Gamochaeta pensylvanica (Willd.) Cabrera

N IJ: Israel, Philisteian Plain: Beerot Yitzhak, 24.4.1988, Flint (HUJ); id., Sharon: Hanniel, 12 km E of Natanya, orange orchard, 21.4.1985, Raviv (HUJ); ibid., irrigated orange
grove, in the shade of trees, 10.4.1999, Danin (B, HUJ; det. Kilian); ibid., 29.4.1999, Danin (HUJ); id.: Kefar Yona, in an orange grove, 18.4.1996, Ron (HUJ). – Gamochaeta is often included as a section in Gnaphalium, and the species consequently treated as *Gnaphalium pensylvanicum* Willd., but recent revisional work on the tribe *Gnaphalieae* (Anderberg in Opera Bot. 104. 1991 & in Bremer, Asterac. 1994) supports the view of Cabrera (in Bol. Soc. Argent. Bot. 9: 359-386. 1961) in recognizing *Gamochaeta* as a separate genus. *Gamochaeta pensylvanica* is an annual, native to the warmer parts of the Americas but widespread as a weed in mainly tropical and subtropical Africa, Australasia and the Pacific region, and has been recorded in the Old World, e.g. from S Africa, before 1865 (Hilliard in Leistner, Fl. S. Africa 33(7.2): 28. 1983). Due to the overall resemblance of the various spicate cudweeds, it has often been confused with true *Gnaphalium* species such as *G. polycaulon* Pers. and also frequently referred to as “*Gnaphalium indicum* L.” due to misapplication of that name, which actually pertains to a *Helichrysum* restricted to S Africa (Grierson in Notes Roy. Bot. Gard. Edinburgh 31: 135-138. 1971). Distinction from the palaeotropical *Gnaphalium polycaulon*, which is a common weed in Egypt (Fayed & Zareh in Wildenowia 18: 445-453. 1989) but is not known from Israel, is easy because in *Gnaphalium* the pappus bristles fall off separately, whereas they are basally fused into a ring in *Gamochaeta* so that the pappus is shed as a unit. Distinction between the different gamochaetoid cudweeds is, in contrast, rather troublesome and their taxonomy disputed. For the Med-Checklist area two species have been reported so far: *Gamochaeta purpurea* (L.) Cabrera (Portugal & Açores; Holub in Tutin & al., Fl. Eur. 4: 127. 1976) and *G. subfalcata* (Cabrera) Cabrera (central & S Portugal; Holub l.c.). *G. pensylvanica* is now the third species; in regions adjacent to the Mediterranean area it has previously been reported from Iraq (Grierson l.c.) and three Macaronesian archipelagos (see, e.g., Hansen & Sunding in Sommerfeltia 17: 46-47. 1993; Press & Short, Fl. Madeira: 343. 1994). In the view of, e.g., Cronquist (Vasc. Fl. S.E. U.S. 1: 178. 1980) and Short (in Newslett. Austral. Syst. Bot. Soc. 52: 7-11. 1987), these, among others, should all be treated as a single variable species and would then have to be named *Gamochaeta purpurea*. However, in his detailed account Drury (in New Zealand J. Bot. 9: 157-185. 1971) maintains the narrower species concept of Cabrera (l.c.). At most, separation of *Gamochaeta subfalcata* from *Gamochaeta pensylvanica* may be debatable, but at least the collections from Israel match *Gamochaeta pensylvanica* s.str. well. A search (by A.D.) among the unidentifed (and misidentified) material inserted under *Gnaphalium* in HUJ revealed that the species has been collected in the coastal plain of Israel since 1985 (see specimen citations above). Ecologically, the species in Israel is confined to shaded, irrigated ground with sandy soil, regularly disturbed by ploughing, and is found mainly in orange orchards, but is absent from sites that are not shaded, or not sandy, or are abandoned and thus not irrigated nor ploughed. N. Kilian & A. Danin

*Dipsacaceae*

**Pycnostachyum rutifolium** (Vahl) Hoffmanns. & Link

**D Gr:** Greece, Crete, Nomos of Ilia, Eparchia of Olimbía: Neochori, coastal sand dunes near the village, alt. 5-10 m, 3.4.1999, Georgiadis & al. 7369 (UPA). – A coastal ammophilous species of the W Mediterranean basin, not previously recorded E of the Adriatic and Ionian Seas. Since Italian occurrences are classified as possibly adventive (see Pignatti, Fl. Ital. 2: 678. 1982, under *Scabiosa rutifolia* Vahl), the status of the newly discovered W Peloponnesian population is considered as doubtfully native for the time being.

Th. Georgiadis
Euphorbiaceae

**Euphorbia pterococca** Brot.

+ Cr: In 1985 and 1987, I collected this Macaronesian and W Mediterranean species, which was hitherto not recorded from Crete, in at least two different localities in the Nomos of Chania. Alas, owing to technical reasons (LD specimens out on loan and not yet registered in the Flora Hellenica database), exact locality data are currently not available. Elsewhere in Greece, the species is known to occur on the islands of Zakynthos, Ejina, and Psara (Halácsy, Consp. Fl. Graec. 3: 101-102. 1904; Greuter in Candollea 31: 199-200. 1976).

Frankeniaceae

**Frankenia boissieri** Boiss.


**Frankenia corymbosa** Desf.

+ Cr: Greece, Crete, Nomos of Chania, Eparchia of Selinos: Island of Gavdopoula, in supralittoral scrub belt on clayey saline loam on coastal calcareous neogene and hard limestone rock, with *Atriplex mollis*, *A. halimus*, and *Limonium graecum*, alt. 5-30 m, 8.5.1998, Fournaraki & Gotsiou 4920 (herb. Medit. Agron. Inst. Chania; det. Bergmeier); ibid., 28.2. & 15.5.1999, Böhling 9508d & 9935 (B, herb. Böhling; det. Böhling); ibid., 28.4.1999, Bergmeier 99-G13 (FB, herb. Bergmeier). – Previously known to occur in Europe only in southernmost Spain (Santos Guerra in Castroviejo & al., Fl. Iber. 3: 453. 1993). The Gavdopoula specimens of this variable species deviate from Spanish plants in the length of the calyx indumentum but otherwise match well the description by, e.g., Siddiqi (in Ali & al., Fl. Libya 64: 8. 1979). This is another interesting case in a series of N African taxa recently added to the S Aegean flora (see the above entry of *Atriplex mollis* and the record of *Suaeda palaestina* Eig & Zohary by Kit Tan & al. in Willdenowia 28: 165. 1998). *F. corymbosa* differs from *Frankenia hirsuta* L. in erect to ascending stems, epicuticular, whitish waxy coat of the leaves, terminal, dichotomous, dense cymes, and shorter, 2-3.5 mm long calyces (see also Chater in Tutin & al., Fl. Eur. 2: 295. 1968). Such specimens have also been collected in the Karpathos area and southern Crete (B). However, intermediates seem to occur and further studies are required.

**Labiatae**

**Lycopus europaeus** L.

+ Cr: Greece, Crete, Nomos of Rethimnon, Eparchia of Ag. Vasilios: Spili (35°13'04"N, 24°32'05"E), roadside permanently damp from seeping water by an abandoned water mill, alt. 390 m, 11.5.1997, Böhling obs. – The species and genus not previously recorded for the Cretan area (see Greuter & al., Med-Checklist 3: 292. 1986). The observed population was growing in a mixed stand of other wetland herbs such as *Lythrum junceum*, *Mentha longifolia* subsp. *typhoides*, *Pulicaria dysenterica*, *Teucrium scordium* subsp. *scordioides*, *Epilobium parviflorum*, *Geranium dissectum*, *Rumex conglomeratus*, and *Carex pendula*.

N. Böhling, E. Bergmeier, Ch. Fournaraki & P. Gotsiou
Astragalus laconicus Iatrou & Kit Tan, sp. nova (Fig. 1). – Holotype: Greece, Peloponnisos, Nomos of Lakonia, Eparchia of Epidavros Limiras, near the village of Vlachiotis on road from Skala to Molai, sandy hill slopes, 100-150 m, 6.6.1997, Tan & al. 18467 (C; isotypes LD, UPA, herb. Tan, herb. Sfikas).

Proxime affinis Astragalo cretico Lam., qui differt a specie nova calycibus basi glabris dentibusque tubo brevioribus, vexillo tantum c. 10 mm longo, bracteis lanceolatis. Additional material seen: Greece, Peloponnisos. Nomos of Lakonia, Eparchia of Epidavros Limiras, north of Neapolis, 2-3 km NNW of Kampo, 24.5.1964, Runemark & Snogerup 20773a (LD, labelled Astragalus cf. cycleneus); id., Makrinara to Vlachiotis, cultivated and uncultivated areas, 150 m, 20.6.1996, Iatrou 4127 (UPA); id., near the village of Vlachiotis on road from Skala to Molai, sandy hill slopes, 100-150 m, fruiting, 2.8.1997, Tan & Vold 18652 (C, herb. Tan).

Dwarf shrub forming dense, spiny tussocks 10-20 cm tall. Stems to 0.6 cm diam., with persistent stipule bases and simple spreading hairs. Leaves paripinnate, 3-4.5 cm; rachis protracted into a yellowish, 4-9 mm long, straight, pubescent spine. Stipules 5-7 mm, tomentose-villous especially at base, ciliate, connate to half, free part triangular-lanceolate, acuminate. Leaflets 8-11-paired, elliptic, 3-8 × 2-2.5 mm, acuminate-mucronulate, with spreading, rarely appressed simple white hairs on both sides, keeled with conspicuous midrib and whitish thickened margins, greyish green; upper pair shorter than the terminal spine. Flowers sessile in leaf axils, crowded in 2-4 × 2.5 cm inflorescences situated 2-3 cm below tip of branches. Bracts broadly obovate, navicular, 5-9 × c. 5 mm, villous-pubescent. Bracteoles lanceolate, 8-9 mm. Calyx tubular-campanulate, 8-10 mm, completely hidden by dense, long, white hairs; teeth lanceolate-setaceous, 5.5-6.5 mm, longer than the tube. Corolla pale pink (drying cream), with darker pink veins on standard, persistent; standard stenonychioid (i.e., with lamina contracting into a narrow claw and with no distinct constriction between limb and claw), claw much shorter and narrower than limb, c. 16 mm, distinctly exceeding wings; keel obtuse. Young legume narrowly ovoid, densely white-villous; style glabrous at maturity; stigma capitate. Seeds 1, rarely 2.

Low sandy hills, cultivated and uncultivated areas, 50-100 m. Flowering May and June. With affinities to Astragalus creticus Lam. (Astracantha cretica (Lam.) Podlech), which is represented by two subspecies in Greece and has calyces glabrous at the base and with teeth shorter than the tube, lanceolate bracts, and standards only c. 10 mm long. A. creticus subsp. creticus is possibly endemic to central & E Crete (fide Turland & al., Fl. Cretan Area: 103. 1993), although Chamberlain & Matthews (in Davis, Fl. Turkey 3: 122. 1970, followed by Strid, Mount. Fl. Greece 1: 465. 1986) report it as also occurring on the East Aegean island of Samos and in S Anatolia. A. creticus subsp. rumelicus (Bunge) Maire & Petitm. is more widespread, with a distribution from Albania and S Jugoslavia to Greece. A. laconicus was documented by W. Strasser, a Swiss teacher and amateur botanist, as occurring in the type locality in 1985, but he misidentified it as A. thracicus Griseb. The latter is a mountain steppelike species, so its occurrence at such low altitudes in the southern Peloponness was rather interesting and deserved further investigation (see Tan & Iatrou in Ann. Naturhist. Mus. Wien 98B, Suppl.: 308. 1996). The taxon under discussion also occurs in the far south of the Malea Peninsula, the easternmost prong of the Peloponnese, where it was collected by Runemark & Snogerup in May 1964 (see above). In the same study area two other unusual taxa occur: Thymus laconicus Jalas (see Tan & Iatrou in Tsekos & Moustakas, Proc. 1st Balkan Bot. Congr.: 154-155.)
Fig. 1. *Astragalus laconicus* – A: habit; B: leaf with stipules; C: flower; D: calyx dissected; E: petals and ovary. – Drawn from the type by B. Johnsen.
1998) and Onobrychis peloponnesiaca. We think it appropriate to publish a change of rank for the latter in the present instalment of the “Med-Checklist Notulae” (see below).

Kit Tan & G. Iatrou

**Astragalus gladiatus** Boiss.

+ Gr:

Greece, W Makedonia, Nomos & Eparchia of Florina: 6 km SW of the village of Peraia, low rocky hills with dry meadows and open scrub on limestone, alt. 620 m, 18.6.1998, *Strid & al.* 46744 (ATH, B, C, G, LD); id.: SSW of Peraia, alt. 620 m, 1.8.1998, *Tan & Strid* 21050 (C, herb. Tan); ibid., 30.5.1999, *Strid & al. obs.*; id., Nomos of Serres, Eparchia of Sintiki: 2-7 km W of Fea Petra, ditch by a road, rocky cliff and dry pastures, alt. 160 m, 26.6.1989, *Willing* 7311a (B; det. Tan); ibid., at the foot of rocky slopes with *Quercus coccifera*, alt. 180 m, 14.6.1992, *Willing* 18301 (B; det. Tan). – Previously known only from a few collections in former Jugoslavia (Makedonija), Bulgaria and W Anatolia. European material has sometimes been distinguished as *Astragalus pugonifer* Bunge but this apparently is conspecific with *A. gladiatus*, described from W Anatolia.

A. Strid & Kit Tan

**Coronilla repanda** (Poir.) Guss. subsp. *repanda*

+ Gr:

Greece, Peloponnisos, Nomos of Lakonia, Eparchia of Epidavros Limiras, coast facing the island of Elafonisos, littoral dunes and moist sandy depressions, alt. 0-1 m, 10.4.1979, *Greuter & Merxmüller* 17075 (B, M, herb. Greuter, etc.); id., Nomos of Ilia, Eparchia of Olimbia: Kallafas, just S of the village, coastal dunes between the lagoon and the sea, 29.4.1991, *Lassen* 91196 (LD) & *Phitos & al.* (UPA; det. Lassen). – This mainly W Mediterranean taxon was not known from the Balkan Peninsula according to Greuter & al. (Med-Checklist 4: 80. 1989). It was to be expected in Greece as it has known outposts in Cyprus (Meikle, Fl. Cyprus 1: 517. 1977) and Israel (Feinbrun-Dothan & Danin, Anal. Fl. Eretz-Israel: 330. 1991). The 1979 collection had been misidentified as *Coronilla scorpioides* (L.) W. D. J. Koch, and duplicates were widely distributed under that name.

W. Greuter & P. Lassen

**Coronilla valentina** subsp. *glauca* (L.) Batt.

– AE, An: Given for the East Aegean area and Anatolia by Greuter & al. (Med-Checklist 4: 80. 1989), based on reports from Rhodos and the Datça Peninsula. In fact, the substantiating voucher material (leg. A. Carlsström, LD; rev. P. Lassen) represents *Hippocrepis emerus* subsp. *emeroides* (Boiss. & Spruner) Lassen. Therefore, the Aegean distribution of *Coronilla valentina* L. does not reach Asia but stays W of a line running from Mt Athos via Andros to Karpathos.

P. Lassen

**Genista anatolica** Boiss.

+ Gr:


58 Greuter & Raus: Med-Checklist, 18
Thracian specimens of *Genista anatolica* grown in soil other than from the original locality did not survive, so there seems to be a strong dependency of the plants on soil conditions.

**Lathyrus pannonicus** (Jacq.) Garcke

+ Gr: Greece, W Makedonia, Nomos & Eparchia of Grevena: 0.5 km along turnoff to Despotis (shortcut, not road to Despotis via Pigaditsa), alt. 530 m, 5.5.1991, *Tan & Vold* 9398 (C; det. Lassen). – On the Balkan Peninsula previously known only from Albania, former Yugoslavia, and Bulgaria (see Greuter & al., Med-Checklist 4: 122. 1989). The Greek specimens resemble material from N Italy to Albania called *Lathyrus pannonicus* subsp. *varius* (Hill) P. W. Ball, but differ in non-ciliate calyx lobes. Unfortunately, the shape of root-tubers, important for determination of subspecies in *L. pannonicus*, is unknown.

**Lotus corniculatus** L.

– Cr: Reported several times for the Cretan area, again recently by Jahn & Schönfelder (Exkursionsfl. Kreta: 169. 1995) from altitudes of 0-700 m, but no substantiating herbarium material has ever turned up. In view of the confused synonymy and obvious determination difficulties, I do not trust former literature records from Crete. In S Greece, the species is confined to altitudes above 1000 m, records below that limit usually concern *Lotus presilii* Ten. or *L. tenuis* Willd.

**Lotus pedunculatus** Cav.

– Cr: Cretan records of *Lotus pedunculatus* (see, e.g., Jahn & Schönfelder, Exkursionsfl. Kreta: 169. 1995) are not substantiated by herbarium specimens, and the species should therefore be excluded from the flora of the Cretan area. In Greece it is confirmed for the northernmost part only (see Akeroyd in Strid, Mount. Fl. Greece 1: 519. 1986, under *L. uliginosus* Schkuhr).

**Medicago blancheana** Boiss. subsp. *blancheana*

A Gr: Greece, E Makedonia, Nomos & Eparchia of Drama: a few km out of Drama towards Alistati, alt. 130 m, 5.5.1991, *Mathison 3850* (Australian Medicago Gene Resource Centre; confirm. Lassen). – The “type subspecies” of *Medicago blancheana* is intermediate between *M. blancheana* subsp. *bonarotiana* Arcang. and *M. rotata* Boiss. The former occurs as far W as the East Aegean Islands, the latter is more eastern and less common (for details, see Small in Canad. J. Bot. 72: 829-831. 1994). It is quite probable that this single find in northern Greece is adventive.

**Melilotus albus** Medik.

P Cr: Greece, Crete, Nomos of Chania, Eparchia of Kidonia: Prases (35°23'27"N, 23°51'10"E), ditch by a roadside and foot of a schistose slope damp from seeping water, alt. 400 m, flowering 1.8.1998, *Böhling obs*. – Not previously recorded for the Cretan area (see Greuter & al., Med-Checklist 4: 147. 1989), and regional status uncertain so far. The observed population of *Melilotus albus* was noticed in a mixture of macchia, wetland, and semi-ruderal elements such as *Dorycnium rectum*, *Paspalum dilatatum*, *Osmunda regalis*, *Erica arborea*, *Rubus sanctus*, *Chenopodium ambrosioides*, and *Lactuca serriola*.

Ononis mollis Savi

+ Cr: Greece, Karpathos, Nomos of Dodekanisos, Eparchia of Karpathos: Amopi (35°29'03''N, 27°12'47''E), S exposed abandoned limestone terrace with Plantago albicans, Asteriscus aquaticus, Campanula pinatzii, Lomelosia divaricata, Rosalia cristata, etc., alt. 5 m, 4.5.1998, Böhling 8159 (B); id., Crete, Nomos of Iraklion, Eparchia of Kenourjios: Lendas (34°56'18''N, 24°55'29''E), schistose screes with Dasypyrum villosum, Aristida caerulescens, Stipa capensis, Melilotus graecus, etc., alt. 180 m, 4.5.1998, Böhling 7826 (B); id., Nomos of Lasithi, Eparchia of Sitia: Xerokambos (35°02'28''N, 26°13'59''E), ruderal site in moist sandy depression near the coast, with Salsola aegaea, Atriplex halimus, Bromus madritensis subsp. madritensis, Vulpia fasciculata, Hyparrhenia hirta, etc., alt. 2 m, 24.4.1997, Böhling 5308 (B). – Not always separated from Ononis reclinata L. at species level in previous literature (see, e.g., Greuter & al., Med-Checklist 4: 163. 1989) and therefore not recorded from the Cretan area so far. However, O. mollis and O. reclinata are obviously sympatric on Crete and Karpathos although not always easily discerned in specimens with withered corollas and/or immature pods (for taxonomic details, see Valdés & al., Fl. Andalucía Occ. 2: 149. 1987; Valdés in Bocconea 3: 152. 1992).

Trifolium aurantiacum Boiss. & Spruner


Trifolium caudatum Boiss.

+ AE: Greece, East Aegean Islands, Nomos & Eparchia of Samos: Samos, E part of Mt Kerki, 24.5.1962, Runemark & al. 19393 (LD; det. Lassen); ibid.: S of Vurlotises, N exposed cliffs of Ag. Ilias, 27.5.1962, Runemark & al. 19935 (LD; det. Lassen). – New to Greece, strengthening the Anatolian floristic element in the flora of the East Aegean Islands. The species was thought to be endemic to W Anatolia (see map in Davis, Fl. Turkey 3: 423. 1970).

Trifolium incarnatum subsp. molinerii (Hornem.) Cesati

– AE: Given for the East Aegean Islands by Greuter & al. (Med-Checklist 4: 185. 1989), based on reports from Rhodos. In fact, the substantiating voucher material (leg. A. Carlström, LD; rev. Lassen) is a mixture of Trifolium infamia-ponertii Greuter and T. stellatum L.

Trifolium lucanicum Guss.

105(1): 364. 1943) as *T. scabrum var. minus* Gibelli & Belli, was not accepted for the Cretan area by Zohary & Heller (Gen. Trifol.: 421. 1984, followed by Greuter & al., Med-Checklist 4: 191. 1989), but now seems very plausible. P. Lassen

**Trifolium michelianum** Savi


**Trifolium obscurum** Savi

+ AE, An: Greece, East Aegean Islands, Nomos & Eparchia of Samos: Samos, 2 km above Samos town on the Vlamari road, sandy soil damp in winter, 9.5.1993, *Samuelesson 1574* (S; det. Lassen); Turkey (A1/A), Çanakkale: “Dardanelli in graminosis”, *Sintenis* [a. 1883] 1305, pro parte (LD; det. Lassen). – A mainly W Mediterranean species (see Greuter & al., Med-Checklist 4: 187. 1989), but also known from Turkey-in-Europe (Davis & Zohary in Davis, Fl. Turkey 3: 440. 1970). The mixed exsiccatum *Sintenis 1305* of 1881, kept in *Sintenis*’s own herbarium at LD and perhaps not distributed at all, is labelled “*Trifolium* (sp. indet., det. Ascherson)”; “*maritimum*” was added in LD. The other part of the material is really *T. squamosum* L. (*T. maritimum* Huds.), rare in Anatolia and probably not expected by Ascherson. Ecologically, it makes sense that these predominantly western species were collected together. P. Lassen

**Trifolium sylvaticum** Gérard


**Trigonella cephalotes** Boiss. & Bal.

+ Gr, AE: Greece, Sterea Ellas, Nomos & Eparchia of Korinthia: by Lake Vouliagmeni NW of Loutraki, rocky limestone slope in *Pinus halepensis* woodland, 19.5.1982, *Runemark & Svensson 48888* (LD); ibid., 19.5.1991, *Strid 31903* (C); id., East Aegean Islands, Nomos & Eparchia of Samos: Samos, the valley E of Leka, 22.5.1962, *Runemark & al. 18879* (LD); ibid., 3-4 km W of Marathokambos, 23.5.1962, *Runemark & al. 19100* (LD). – Rare and scattered, so far only known from two localities in Anatolia where it was considered endemic (Huber-Morath in Davis, Fl. Turkey 3: 478. 1970). Close to *Trigonella spicata* Sm., but material from the locus classicus (in Cilicia) and the Greek collections cited look distinct from the latter and are exactly alike! P. Lassen

**Vicia hirsuta** (L.) Gray

Vicia monantha Retz.

+ AE: Greece, East Aegean Islands, Nomos of Dodekanisos, Eparchia of Rhodos: Rhodos, E of Kattavia, Viglas (35°55′00″N, 27°49′26″E), coastal marshy area by a rivulet draining the swamps S of Kattavia, alt. 1-2 m, 7.4.1998, Böhling 7526 (B, herb. Böhling; det. Böhling, confirm. Bäßler). – The collection confirms the occurrence of this species in the East Aegean region, which had previously been assumed based on a specimen from the island of Chalki too imperfect for certain identification and therefore queried by Greuter & al. (Med-Checklist 4: 213-214. 1989). The plants from Rhodos show 2-3-flowered inflorescences with 15 mm long standards and are thus intermediate between the W Mediterranean Vicia monantha subsp. calcarata (Desf.) Romero Zarco [= V. monantha subsp. triflora (Ten.) B. L. Burtt & P. Lewis] and the SW Asian to N African “type subspecies” (see Romero Zarco in Castroviejo, Fl. Iber. 7(1): 398-399. 1999).

N. Böhling & M. Bäßler

Vicia tenuifolia (L.) Roth subsp. tenuifolia


M. Bäßler & N. Böhling

Vicia villosa subsp. eriocarpa (Hausskn.) P. W. Ball


P. Lassen

Myrtaceae

Eucalyptus camaldulensis Dehnh.

N Cr: Greece, Crete, Nomos of Iraklion, Eparchia of Kenourjiou: Messara plain, Koustouliana (35°01′45″N, 24°56′11″), in pebbly riverbed of Jeropotamos river settled by Nicotiana glauca, Foeniculum vulgare subsp. piperitum, Tamarix parviflora, etc., alt. 110 m, 18.3.1998, Böhling 7118 (B, herb. Böhling). – This first status record for the Cretan area of a eucalypt being truly naturalized is not surprising since Eucalyptus camaldulensis is already known as “extensively naturalized and invasive” in adjacent S Anatolia (Chamberlain in Davis, Fl. Turkey 4: 173. 1972). Seeds of old E. camaldulensis trees planted along the upper banks of river Jeropotamos germinated on the recent alluvions of the river, giving rise to seedlings and saplings of various age up to c. 15 m tall young trees, covering an area of several 100 m².

N. Böhling

Rubiaceae

Galium recurvum DC.

+ Cr: Greece, Crete, Nomos of Lasithi, Eparchia of Ierapetra: Island of Chrissi (Gaidou-
Solanaceae

Solanum nigrum L. subsp. nigrum

+ Cr: Greece, Crete, Nomos of Chania, Eparchia of Kydonia: Deres (35°26′01″N, 23°50′46″E), on open, wet, sandy alluvial river deposits, with Solanum villosum subsp. villosum, Chenopodium ambrosioides, Eupatorium adenophorum, Plantago major subsp. intermedia, etc., alt. c. 170 m, 8.10.1997, Böhling 6512 (B); id., Nomos & Eparchia of Lasithi: Ag. Konstantinos (35°10′31″N, 25°30′24″E), irrigated potato field, with Solanum villosum subsp. villosum, Loliium rigidum subsp. rigidum, Raphanus raphanistrum, Anthemis melanolepis, Eryngium campestre, etc., alt. c. 820 m, 11.10.1997, Böhling 6618 (B); id., Nomos of Rethimnon, Eparchia of Amari: Jerakari (35°12′29″N, 24°34′34″E), vegetable field over moist schist, with Solanum nigrum subsp. schultesii, Datura stramonium, Tribulus terrestris, Chenopodium album, etc., alt. 780 m, 4.8.1998, Böhling 8700 (B). – S Aegean literature records of Solanum nigrum had not been differentiated as to subspecies so far (see Jahn & Schönfelder, Exkursionsfl. Kreta: 271. 1995; Raus in Bot. Chron. 12: 41. 1996; Chilton & Turland, Fl. Crete, Suppl.: 84. 1997). In Crete, the “type subspecies” is sympatric with Solanum nigrum subsp. schultesii (Opiz) Wessely (see next item).

N. Böhling

Solanum nigrum subsp. schultesii (Opiz) Wessely

+ Cr: Greece, Crete, Nomos of Chania, Eparchia of Kissamos: Ravdoucha (35°32′32″N, 23°44′44″E), ruderal places in irrigated olive grove, with Solanum villosum subsp. villosum, Kickxia spuria subsp. integrifolia, Polygonum aviculare, etc., siliceous soil, alt. 180 m, 25.9.1997, Böhling 6386 (B); id., Nomos of Iraklion, Eparchia of Monofatsion: Charakas (35°01′N, 25°07′E), ruderal patches in a vineyard on deep brown soil, with Amaranthus retroflexus, Chenopodium album, Oxalis pes-caprae, Setaria viridis, etc., alt. 230 m, Böhling 9017 (B); id., Nomos of Iraklion, Eparchia of Vianos: Anapodaris (34°59′11″N, 25°19′20″E), weed in moist places along rubber tubes in irrigated olive grove, calcareous soil, alt. 10 m, 16.10.1998, Böhling 9027 (B); id., Nomos & Eparchia of Lasithi: Magoulas (35°09′N, 25°27′E), ruderal places with Conium maculatum, Daucus carota subsp. maximus, and Convolvulus arvensis, siliceous soil, alt. 850 m, 22.8.1998, Böhling 8910 (B). – Solanum nigrum subsp. schultesii seems to be only slightly less frequent on Crete than S. nigrum subsp. nigrum.

N. Böhling

Solanum physalifolium Rusby

A Cr: Greece, Crete, Nomos & Eparchia of Lasithi, Ag. Charalambos (35°10′N, 25°26′E), irrigated vegetable field, with Amaranthus graecizans, A. hybridus, Centaurea calcitrapa subsp. calcitrapa, Cicer arrietinum, Eragrostis ciliensis, etc., alt. 820 m, 10.10.1997, Böhling 6603, 6604 (B, herb. Böhling). – This is the first record for the Cretan area of this alien of South American origin (Argentina, Bolivia, Chile). The Cretan plants belong to the weedy variety, Solanum physalifolium var. nitidibaccatum (Bitter) Edmonds (S. nitidibaccatum Bitter), which, from c. 1880 onwards,
spread in many European countries where it is rapidly becoming naturalized, being often misidentified as *S. nigrum* s.l. or *S. villosum* s.l. (see Edmonds in Bot. J. Linn. Soc. 92: 27-36. 1986). Diagnostic field characters are its small, cream-coloured flowers suffused with violet, its accrescent sepals halfway enclosing the ripe, green to dark violet, glossy fruit, and its patent, gland-tipped indumentum. *S. physalifolium* resembles *S. sarachoides* Sendtn., a weedy xenophyte from Brazil not yet recorded from Greece but likewise to be expected there as a ruderal or segetal weed, but the latter has, i.a., longer calyces enclosing the fruit nearly totally (for further details see Stace, New Fl. Brit. Isles, ed. 2: 530-531. 1997).

N. Böhling

**Zygophyllaceae**

*Fagonia schimperi* C. Presl


A. Danin

**Alismataceae**

*Alisma gramineum* Vill.

+ **IJ:** Israel, Shefela: E of Tel Gezer, 10 km SE of Ramla, in a mud-clogged well, alt. 110 m, 12.3.1994, Prasse (HUIJ); ibid., 16.8.99, Fragman & Leschner (HUIJ). – Not mentioned in Feinbrun-Dothan (Fl. Palaest. 4. 1986) or, for Jordan, by Al-Eisawi (in Mitt. Bot. Staatssamml. München 18: 79-80, 1982). Prasse’s unpublished record was confirmed during the Israel Rare Plant Survey conducted by “Rotem” (the Israel Plant Information Centre).

O. Fragman

**Cyperaceae**

*Carex hordeistichos* Vill.


V. Hellmann & Th. Raus

*Carex serotina* Mérat subsp. *serotina*

+ **An:** Turkey (C4), Karaman: N side of Oyuklu Dağ N of Ermenek (36°51’N, 31°53’E), a few individuals in wet places of N exposed, 10° inclined, moderately grazed and trampled turfy slopes, alt. 1930 m, 24.7.1992, Raab-Straube O 2-4 (B, herb. P. Hein, herb. Parolly, herb. Raab-Straube). – First record for the Flora of Turkey area and, at subspecific level, for the whole of SW Asia. The southeastern distribution limit of this European taxon was hitherto believed to cross central and NE Greece (for detailed localities, see Hartvig in Strid & Tan, Mount. Fl. Greece 2: 854. 1991). According to Kukkonen (in Rechinger, Fl. Iran. 173: 245. 1998), *Carex serotina* subsp. *philocrena* (V. I. Krecz.) Kukkonen (*C. philocrena* V. I. Krecz.) replaces the “type subspecies” in Iran and further east. In the S Anatolian Taurus mountains, *C. serotina*
subsp. *serotina* was found to inhabit turfs and paludal forb communities by narrow brooklets and small mossy pools, on condensed, somewhat disturbed, always ophiolithic soils dominated by *Blysmus compressus* (L.) Panz. (Potentillo-Polygonetalia vegetation), i.e., the typical habitat observed throughout the total range of the species. We follow Hartvig (l.c.) and Kukkonen (l.c.) in keeping *C. serotina* distinct from the North American *Carex viridula* Michx., which is often considered conspecific (see Schmid in Watsonia 14: 309-319. 1983, followed by, e.g., Wisskirchen & Haeupler, Standardliste Farn-Blütenpfl. Deutschl.: 124. 1998). The only member of the taxonomically difficult *C. flava* group up to now known to occur in Turkey was *C. flava* L. (aff. var. *alpina* Kneuck.) from alpine habitats in the N Anatolian Pontus range (Nilsson in Davis, Fl. Turkey 9: 133. 1985).

G. Parolly & E. von Raab-Straube

*Cyperus laevigatus* L. subsp. *laevigatus*

**D Cr:** Greece, Crete, Nomos & Eparchia of Rethimnon: Rethimnon, sea shore in the old Venetian harbour, moist sandy places, alt. c. 1 m, 8.4.1997, Ristow & al. 123/97 (B, herb. Ristow). – This is the second record of the mainly (sub-)tropical “type subspecies” of *Cyperus laevigatus* for Europe, following the one from Pantelleria off Sicily (Kükenthal in Engler, Pflanzenr. 101: 322. 1936; DeFilipps in Tutin & al., Fl. Eur. 5: 287. 1980). The question of the status of the Cretan population must remain unanswered; the locality lacks ruderal influence and fits well the habitat of the taxon (“somewhat saline and sandy soils”; see Feinbrun-Dothan, Fl. Palaest. 4: 366. 1986), but the assumption of an introduction, in a harbour, also seems quite reasonable. A search for the taxon in similar places along the Cretan coast could help clarification. Kükenthal (l.c.) reports *C. laevigatus* s. str. also from the East Aegean island of Rhodos, but the taxon is not admitted for the Flora of Turkey area by Davis & Tan (in Davis, Fl. Turkey 9: 42-43. 1985, under *Juncellus laevigatus* (L.) C. B. Clarke).

M. Ristow

**Gramineae**

*Ehrharta erecta* Lam. var. *erecta*

**A IJ:** Israel: Sharon, Hanniel, 12 km E of Natanya, annual weed in irrigated orange grove, in the shade of trees, 10.4.1999, Danin (B, HUJ; det. Scholz); id.: Pleshet, Petah-Tiqya, annual weed on sandy soil, in the shade of a house, 10.4.1999, Danin (B, HUJ; det. Scholz). – An introduced adventive species of S African origin, previously not recorded from Israel or Jordan but known to occur as a weed in several subtropical regions of the world (see Lazarides & al., CSIRO Handb. Austral. Weeds: 67. 1997). According to A. Liston (in litt.), this is the grass referred to as “Stebbins’s folly” in California.

A. Danin & H. Scholz

*Glyceria nemoralis* (Uechtr.) Uechtr. & Körn.


A. Strid & Kit Tan

*Leersia oryzoides* (L.) Sw.

+ **Gr:** Greece, Thrace, Nomos of Evros, Eparchia of Orestias: Keramos (41°36'30"N, 26°21'E), gregarious along sandy banks of the Ardas river, alt. 50 m, 3.8.1994, Raus & al. 21767 (B); id., W Makedonia, Nomos & Eparchia of Florina: gregarious along sandy banks of the Ardas river, alt. 50 m, 3.8.1994, Raus & al. 21767 (B); id., W Makedonia, Nomos & Eparchia of Florina: sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, gregarious in...
swampy places by the lake, alt. 855 m, 7.8.1998, Strid & Tan 47617 (ATH, B, C, G, LD, UPA, herb. Tan). – A widespread Euro-Siberian species not previously reported from Greece, possibly merely overlooked due to late, erratic and often incomplete flowering but certainly more widespread and to be searched for along the big streams of N Greece (Axios, Strimonas, Nestos, Evros). Th. Raus, A. Strid & Kit Tan

Leptochloa uninervia (J. Presl) Hitchc. & Chase

A IJ: Israel: Kinnroth Valley, 5 km S of En Gev, newly exposed soil at the beach of the Sea of Galilee, 27.11.1998, Danin (HUJ). – This annual summer weedy adventive, also known as Leptochloa fusca subsp. uninervia (J. Presl) N. Snow, was collected in a special habitat where competition with the local flora is minimal: the newly exposed soil at the coast of the Sea of Galilee left by the retreating and desiccating lake during the driest of the last 58 years, 1998. Its origin is American and it is adventive elsewhere. A. Danin & H. Scholz

Stipagrostis libyca (H. Scholz) H. Scholz

+ Eg: Egypt: Gilf Kebir region, 23°29’53”N, 26°37’30”E, 24.2.1999, Nussbaum 199902245 (B; det. Scholz). – After a period of heavy rain large populations of this annual were observed flowering. The species, up to now, was only known from Libya (Fezzan, Libyan desert of Cyrenaica). H. Scholz

Ventenata eigiana (H. Scholz & Raus) Doğan


Vulpia unilateralis (L.) Stace

+ Gr: Greece, Peloponnisos, Nomos of Achaia, Eparchia of Egialia: Kernitsa (38°08’N, 32°13’E), c. 1.5 km from the restaurant “Stockholm” along road to Kalavrita, 13.5.1996, Raabe (B; det. Scholz). – Not previously recorded from Greece, and so far the southernmost occurrence of this species on the Balkan Peninsula (the nearest records are from SW Bulgaria, according to Stojanov & al., Fl. Bâlg. ed. 2, 1:131. 1967, under Nardurus maritimus (L.) Janchen). H. Scholz

Juncaceae

Juncus acutiflorus Hoffm.

+ Gr: Greece, W Makedonia, Nomos of Pella, Eparchia of Almopia: Mt Voras c. 8 km NNW of Loutraki, near the border to former Jugoslavia (Makedonija), large shallow depression known as Dobro Polje (Kali Pediada), gregarious along stagnant water, flowering, alt. 1650 m, 5.8.1998, Strid & Tan 47528 (ATH, C, G, LD, herb. Tan). – A widespread European species not previously recorded from Greece. The swampy area known as Dobro Polje is the southernmost locality for several such species, e.g., Drosera anglica, Carex lasiocarpa, C. limosa, and Equisetum fluviatile. A. Strid & Kit Tan

Liliaceae

Nothoscordum gracile (Aiton) Stearn

P Gr: Greece, Peloponnisos, Nomos of Ilia, Eparchia of Olimbia: Alfiousa, garigue and cultivated fields, alt. 80-100 m, 30.4.1990, Poliviou & Georgiadis 2135 (UPA); id., No-
mos of Achaia, Eparchia of Patras: city of Patras, tree-beds by roadsides, alt. 25 m, 2.6.1993, Chronopoulos 164 (UPA); ibid., suburbs of Patras, pavements and tree-beds, alt. 100 m, 10.4.1994, Chronopoulos 2084 (UPA); id., Nomos of Etolia-Akarnania, Eparchia of Nafpaktos: near Platanitis SW of Nafpaktos, ruderal places by the coast, few individuals, alt. c. 5 m, 6.11.1995, Nielsen 10889 (UPA). – A native of warm temperate South America, locally escaped from cultivation and obviously in the process of becoming naturalised in W Greece. Fully established in the western part of the Mediterranean, from Portugal to Sicily, where it generally has been referred to as “N. inodorum” (for nomenclatural discussion, see Stearn in Taxon 35: 338. 1986).

Th. Georgiadis

Address of the editors:
Prof. Dr W. Greuter & Dr Th. Raus, Botanischer Garten und Botanisches Museum Berlin-Dahlem, Freie Universität Berlin, Königin-Luise-Str. 6-8, D-14191 Berlin, Germany; e-mail: wg@mail.bgmb.fu-berlin.de, t.raus@mail.bgmb.fu-berlin.de