



Med-Checklist Notulae, 18

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WERNER GREUTER & THOMAS RAUS (ed.)

Med-Checklist Notulae, 18

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Continuing a series of miscellaneous contributions, by various authors, where hitherto unpublished data relevant to the Med-Checklist project are presented, this instalment deals with the families *Boraginaceae*, *Caryophyllaceae*, *Chenopodiaceae*,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

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 28: 163-174. 1998.

Boraginaceae

Myosotis speluncicola (Boiss.) Rouy

- + **Gr:** 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 Yugoslavia (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:** Greece, Epirus, Nomos of Ioannina, Eparchia of Konitsa: 2.5 km NW of Fourka, moist pastures SW of summit called Profitis Ilias, alt. 1630 m, 4.6.1987, *Willing 2942* (B; det. Raus); id.: place called Golio, N of Kamenik, near the village of Pirsojanni, 500 m from the Greek-Albanian border, S facing calcareous pastures, alt. 1800 m, 6.7.1995, *Chitos* (B, herb. Chitos; confirm. Raus); *ibid.*; with mature fruits, 8.7.1999, *Chitos* (B, herb. Chitos; confirm. Raus). – The cited collections confirm the occurrence of the species in Greece. A previous record from Mt Kajmakčalan (Zaganiaris in Sci. Ann. Fac. Phys. Math. Aristotelian Univ. Thessaloniki 6: 89. 1940) is not substantiated by herbarium material and therefore queried by Strid (in Strid & Tan, Mount. Fl. Greece 2: 62. 1991). Th. Chitos & Th. Raus

*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* trees and dominated by *Geranium molle*, *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, Selinotikos 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 Phitos & al., 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. N. Böhling & Th. Raus

*Chenopodiaceae**Atriplex mollis* Desf.

- + **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Selinos: Island of Gavdopoula, halophytic supralittoral scrub belt on coastal calcareous neogene and hard limestone rock, with *Atriplex halimus*, *Limonium graecum*, *Periploca angustifolia*, *Pistacia lentiscus*, and *Frankenia corymbosa*, alt. 5-60 m, 8.5.1998, *Fournaraki & Gotziou 4934* (herb. Medit. Agron. Inst. Chania; det. Bergmeier); *ibid.*, 28.2. & 15.5.1999, *Böhling 9535 & 9916* (B, herb. Böhling, herb. Tan; det. Böhling, confirm. Tan); *ibid.*, 28.4.1999, *Bergmeier 99-G15* (FB, herb. Bergmeier). – A species of chiefly N African distribution that just reaches the southernmost Aegean area c. 30 km off the southern coast of Crete. Former European records from Sardinia and Malta are either erroneous (Arrigoni in Willdenowia 13: 82. 1983) or refer to casual occurrence (Lanfranco in Willdenowia 12: 191. 1982). The discovery of this species and of *F.*

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

- A **Gr:** Greece, Peloponnisos, Nomos of Ilia, Eparchia of Olimbia: c. 15 km ESE of Pirkos near the village of Makrisia, on roadsides, alt. 50 m, 13.11.1986, *Strid* 25310 (UPA; det. A. Hansen); id.: Epitalion, cultivated fields, alt. 20-50 m, 14.11.1989, *Poliviou & Georgiadis* 2009, 2010 (UPA). – A xenophyte of South American origin, not mentioned in Tutin & al. (Fl. Eur. 4. 1976) but given as a casual from, e.g., Great Britain (Clement & Foster, Alien Pl. Brit. Isles: 357. 1994).
Th. Georgiadis & A. Strid

Galinsoga parviflora Cav.

- N **Al:** Albania: Korçe, Hotel Iliria, steps leading up to terrace, alt. c. 850 m, 25.8.1999, *Tan & Vold* 22000 (B, C, herb. Tan, herb. Tirana, UPA). – Weed of South American origin, fully naturalized in waste places and built-up areas of the city of Korçe. Omitted from Albania by Tutin (in Tutin & al., Fl. Eur. 4: 144. 1976).
Kit Tan, A. Mullaj & G. Vold

Gamochaeta pensylvanica (Willd.) Cabrera

- N **IJ:** Israel, Philistean Plain: Beerot Yitzhak, 24.4.1988, *Flint* (HUJ); id., Sharon: Haniel, 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, HUI; det. Kilian); *ibid.*, 29.4.1999, *Danin* (HUI); *id.*: Kefar Yona, in an orange grove, 18.4.1996, *Ron* (HUI). – *Gamochoaeta* 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 *Gamochoaeta* as a separate genus. *Gamochoaeta 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 *Willdenowia* 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 *Gamochoaeta* 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: *Gamochoaeta 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 *Gamochoaeta 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 *Gamochoaeta subfalcata* from *Gamochoaeta pensylvanica* may be debatable, but at least the collections from Israel match *Gamochoaeta pensylvanica* s.str. well. A search (by A.D.) among the unidentified (and misidentified) material inserted under *Gnaphalium* in HUI 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

Pycnocomon rutifolium (Vahl) Hoffmanns. & Link

D Gr: Greece, Crete, Nomos of Ilia, Eparchia of Olimbia: Neochori, coastal sand dunes near the village, alt. 5-10 m, 3.4.1999, *Georgiadis & al.* 7369 (UPA). – A coastal amophilous 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).
P. Lassen

*Frankeniaceae**Frankenia boissieri* Boiss.

- + **Ma:** Morocco, Province of Tanger: Oued Tahadart near Asilah, on saline ground (daya), alt. 5 m, 13.6.1989, *Deil 4298* (FB). – Not given for Morocco by Nègre (in *Trav. Inst. Sci. Chérifien, Sér. Bot.* 12. 1957, followed by Greuter & al., *Med-Checklist* 3: 231. 1986). The new area record was to be expected since the species is otherwise widespread in NW Africa, the southern Iberian peninsula, and on the Canary Islands.
U. Deil & E. Bergmeier

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.

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

*Labiatae**Lycopus europaeus* L.

- + **Cr:** Greece, Crete, Nomos of Rethimnon, Eparchia of Ag. Vasiliou: 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

Leguminosae

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 *Astragalus creticus* 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 Kampos, 24.5.1964, *Runemark & Snogerup 20773a* (LD, labelled *Astragalus* cf. *cylleneus*); 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 × 2-2.5 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 steppe species, so its occurrence at such low altitudes in the southern Peloponnese 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.

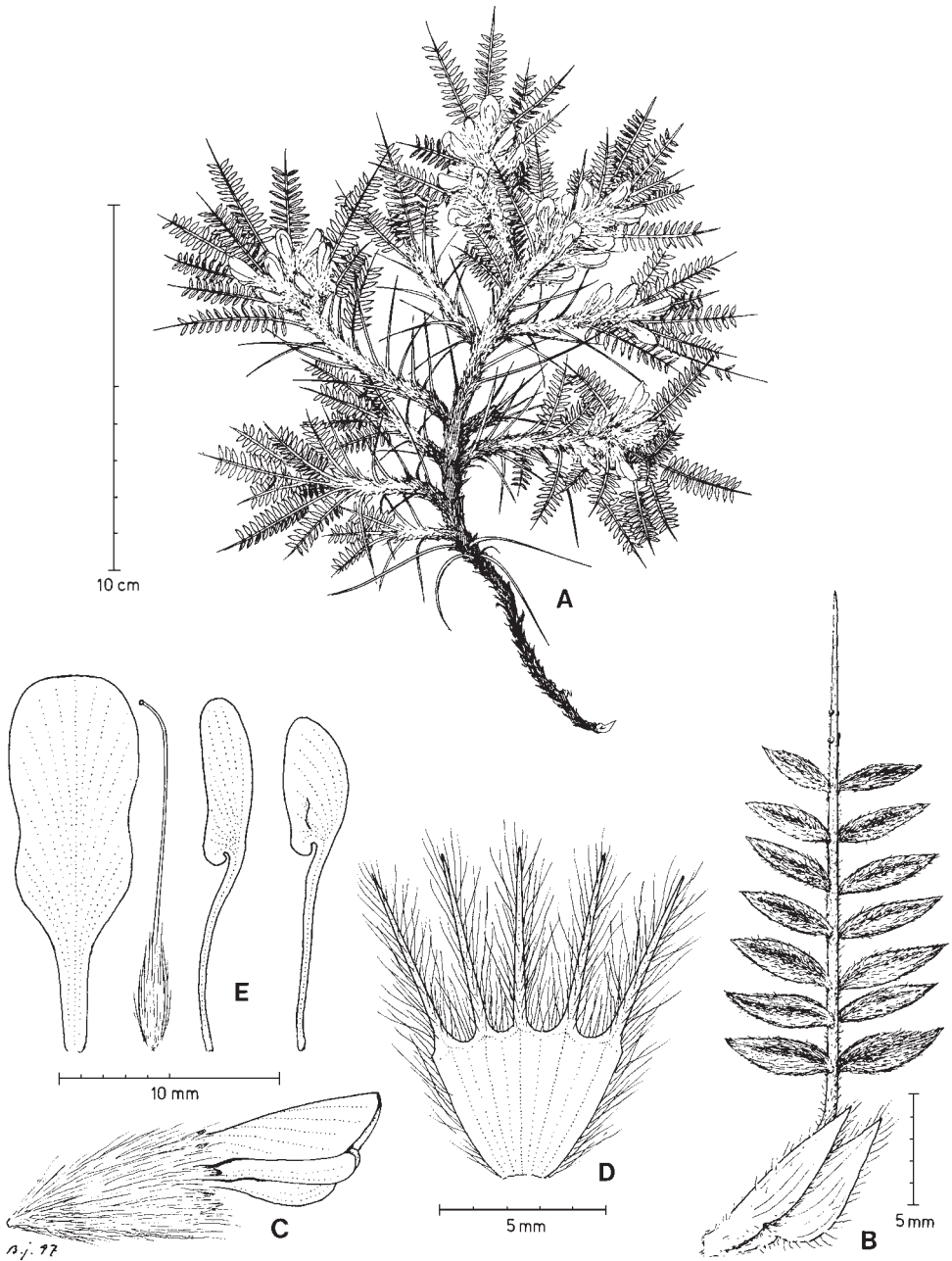


Fig. 1. *Astragalus laconicus* – A: habit; B: leaf with stipules; C: flower; D: calyx dissected; E: petals and ovary. – Drawn from the type by B. Johnsen.

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 Yugoslavia (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 Iliia, Eparchia of Olimbia: Kaiafas, 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. Carlström, 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:** Greece, Thrace, Nomos of Evros, Eparchia of Alexandroupolis: W of Alexandroupolis between Perama and Petrota, alt. c. 550 m, 4.6.1998, *Sfikas & al. 11576, 11577* (herb. Sfikas; det. Tan); *ibid.*, 22. & 24.4.1999, *Adamopoulos & Apostolidis* (herb. Adamopoulos; det. Tan); id.: E of Alexandroupolis, S of Loutros, hill slopes with *Pinus brutia* forest and scattered stands of *P. nigra*, 1998, *Adamopoulos & Apostolidis* (herb. T. Adamopoulos; det. Tan). – New to the Greek mainland. In Greece previously known only from the East Aegean Islands (although omitted from "AE" in Greuter & al., Med-Checklist 4: 92. 1989), viz. Lesvos (Gibbs in Davis, Fl. Turkey 3: 30. 1970, confirmed by recent unpublished collections: *Hansen & Nielsen 2119, 3133 & 4408*, C), and Chios (*Snogerup 7657 & 8320*, C; also 20.5. & 31.5.1985, *Browicz & al. obs.*; identification kindly confirmed by J. Zieliński, Kórnik). A soil analysis of the much overgrazed area revealed an acid substrate (pH 4-5) derived from andesite (igneous) bedrock poor in phosphorus and organic matter but rich in magnesium.

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.
Kit Tan, G. Sfikas, T. Adamopoulos & I. Apostolidis

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. P. Lassen

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 preslii* Ten. or *L. tenuis* Willd. P. Lassen

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). P. Lassen

Medicago blanchiana Boiss. subsp. *blanchiana*

- 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 blanchiana* is intermediate between *M. blanchiana* 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. P. Lassen

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*. N. Böhling

- Onobrychis peloponnesiaca*** (Iatrou & Kit Tan) Iatrou & Kit Tan, **comb. & stat. nov.** ≡ *Onobrychis aliacmonia* subsp. *peloponnesiaca* Iatrou & Kit Tan in *Ann. Naturhist. Mus. Wien* 98B, Suppl.: 308. 1996.

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*, *Rostraria 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 *Dasyphyrum 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 Bocconeia 3: 152. 1992). N. Böhling

Trifolium aurantiacum Boiss. & Spruner

- **Cr:** The single record from the Cretan area in Rechinger (in Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr. 105(1): 359. 1943), already queried by Jahn & Schönfelder (Exkursionsfl. Kreta: 162. 1995), depends in fact on a misidentified specimen of *Trifolium campestre* Schreb. (*Dörfler* 986, WU; rev. Lassen). P. Lassen

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 Vurliotes, 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). P. Lassen

Trifolium glomeratum Boiss.

- + **IJ:** Israel, Upper Galilee: Mt Yohanan, 7 km NW of Zefat, herbaceous pastures on basalt soil, alt. 870 m, 6.4.1998, *Fragman* (HUJ). – Not mentioned for Israel by Zohari (Fl. Palaest. 2. 1972), or for Jordan by Al-Eisawi (in Mitt. Bot. Staatssamml. München 18: 149. 1982). Collected during the Israel Rare Plant Survey conducted by "Rotem" (the Israel Plant Information Centre). O. Fragman

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. P. Lassen

Trifolium lucanicum Guss.

- + **Cr:** Greece, Crete, Nomos of Iraklion, Eparchia of Pediada: doline just NW of Kastelli, 5.11.1995, *Lassen* 95054 (LD); *ibid.*, 8.5.1996, *Lassen* 96082 (LD). – The sole previous Cretan collection of this species (Kissamos: "in sabulosis secus rivulum infra Roumata et Vukolies", 25.6.1893, *Baldacci* 207; see Baldacci in Malpighia 9: 253. 1895; Gandoger, Fl. Cret.: 32. 1916; Halácsy, Consp. Fl. Graec. 1: 391. 1901), referred to by Rechinger (in Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr.

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**

? **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Kissamos: Kissamos, 1884, *Reverchon* 237 (LD, UPA; confirm. Lassen). – Omitted for the Cretan area in Rechinger (in Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr. 105(1): 360. 1943) and Greuter & al. (Med-Checklist 4: 186. 1989). In fact, the old record “Kissamos, *Reverchon*” in Gandoger (Fl. Cret.: 32. 1916) is substantiated by herbarium material. *Trifolium michelianum* var. *michelianum* is mentioned for Crete by Zohary & Heller (Gen. Trifol.: 153. 1984), but without relevant collections cited. [One should however bear in mind that Reverchon was notorious among contemporary botanists as a faker of label data (see, e.g., Burnat in Bull. Soc. Bot. France 30: cxxviii-cxxix. 1930, and correspondence in the archives at G), so that records based uniquely on his specimens are not to be trusted. – Ed.]. P. Lassen

***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, *Samuelsson 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**

+ **Cr:** Greece, Crete, Nomos of Lasithi, Eparchia of Mirabello: Eastern margin of the Katharo plain, 7.5.1995, *Lassen 95015* (LD). – The occurrence of this species in the Cretan area is confirmed by the cited collection. A previous record from Karpathos (Rechinger in Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr. 105(1): 367. 1943) was based on a misidentified specimen of *Trifolium cherleri* L. and therefore the species had been excluded from the Cretan area (Raus in Bot. Chron. 12: 36. 1996). P. Lassen

***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**

+ **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Kidonia: Nea Roumata, moist macchia N of the village, 29.4.1985, *Lassen 85104* (LD); *ibid.*, 27.4.1996, *Lassen 96015* (LD). – New to the Cretan area. P. Lassen

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. Burt & 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*

- + **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Selinos: between Selinotikos Jiros and Omalos (35°20'N, 23°53'), margins of barley field, alt. 1050 m, 20.5.1999, *Böhling 10091* (B, herb. Böhling; det. Bäßler). – This vetch is frequent on and around cultivated, non-grazed land of the given locality, forming extensive hemispherical cushions. The width of the leaflets is 1-2 mm, and the corolla and inflorescence characters fully coincide with the description of the “type subspecies” of *Vicia tenuifolia* given by Romero Zarco (in Castroviejo, Fl. Iber. 7(1): 396. 1999). Former records of *V. tenuifolia* s.str. (“*V. elegans*”, see Rechinger in Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr. 105(1): 328. 1943) had been queried for the Cretan area (Greuter in Mem. Soc. Brot. 24: 157. 1975; Greuter & al., Med-Checklist 4: 203. 1989).
M. Bäßler & N. Böhling

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

- + **Cr:** Greece, Crete, Nomos of Lasithi, Eparchia of Mirabello: Katharo plain, 7.5.1995, *Lassen 95021* (LD); id., Nomos & Eparchia of Lasithi: Lasithi plain, 28.4.1973, *Petersén*, (LD; transitional towards *Vicia villosa* subsp. *varia*; det. Lassen). – Only *V. villosa* subsp. *microphylla* (d'Urv.) P. W. Ball and *V. villosa* subsp. *varia* (Host) Corb. had been reported for the Cretan area so far (Greuter & al., Med-Checklist 4: 213-214. 1989; Jahn & Schönfelder, Exkursionsfl. Kreta: 151. 1995).
P. Lassen

Myrtaceae

Eucalyptus camaldulensis Dehnh.

- N Cr:** Greece, Crete, Nomos of Iraklion, Eparchia of Kenourjios: Messara plain, Koustoulia (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 Chrisi (Gaidou-

ronisi), eastern part (34°52'46"N, 25°43'50"E), patches with annuals among *Juni-perus phoenicea-Periploca angustifolia* scrub on flysch, alt. 30 m, 24.4.1999, *Bergmeier 99-C5* (FB, herb. Bergmeier). – Known from the Cyclades, Northern Sporades, East Aegean Islands and Cyprus, but not mentioned for the Cretan area in literature so far. The tiny annual is easily overlooked and may occur elsewhere in Crete, although the island is floristically relatively well known.

E. Bergmeier & P. Dimopoulos

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*, *Lolium 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 arietinum*, *Eragrostis cilianensis*, 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 schimperii C. Presl

- + **IJ:** Jordan, Edom: Rum area, 8 km SE of Wadi Rum resthouse, in crevices of smooth-faced sandstone outcrops facing west, 13.10.1998, *Danin 981304* (HUI). – Closest and only records of this species [= *Fagonia myriacantha* Boiss.] are from the Sinai peninsula (Danin & al. in Willdenowia 15: 307.1985; Boulos, Fl. Egypt Checklist: 79. 1995). 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* (HUI); *ibid.*, 16.8.99, *Fragman & Leschner* (HUI). – 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.

- + **Gr:** Greece, Epirus, Nomos of Ioannina, Eparchia of Metsovon: c. 2 km N of Metsovon, wet places on clayey soil along path by a piped spring, with *Juncus* spp. and *Carex hirta*, alt. 1200 m, 8.8.1996, *Hellmann* (B; confirm. Raus). – First record for Greece, chorologically significant in that it fills the apparent gap between the known occurrences in former Yugoslavia (Josifović, Fl. SR Srbije 8: 246. 1976) and Bulgaria (Andreev & al., *Opred. Visš. Rast. Bălg.*: 356. 1992), and those in central & S Anatolia (Nilsson in Davis, Fl. Turkey 9: 126. 1985). For the total range of the species, see Schultze-Motel (in Hegi, Ill. Fl. Mitteleur., ed. 3, 2(1): 252. 1966). 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 Reching, 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 ophiolitic 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, Haniel, 12 km E of Natanya, annual weed in irrigated orange grove, in the shade of trees, 10.4.1999, Danin (B, HUI; det. Scholz); id.: Pleshet, Petah-Tiqva, annual weed on sandy soil, in the shade of a house, 10.4.1999, Danin (B, HUI; 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’ folly” in California.

A. Danin & H. Scholz

Glyceria nemoralis (Uechtr.) Uechtr. & Körn.

+ Gr: Greece, W Makedonia, Nomos of Pella, Eparchia of Almopia: along forest road above the village of Notia, shady place by a small stream in *Fagus* forest, schist, 4.8.1998, Strid & Tan 47486 (C, G, LD). – A woodland species of central and E Europe, new to Greece, with nearest localities in adjacent Bulgaria (Andreev & al., Opred. Visš. Rast. Bälg.: 606. 1992).

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: 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

+ LS: Syria: Djebel el Druse, Qanawat, 32°45'28"N, 36°36'22"E, 127 m, 25.4.1997, *Chik Ali* (B; det. Scholz). – The population in S Syria grows several 100 km away from the species' sole hitherto known locality in central Anatolia, vilayet Elaziğ (Scholz & Raus in *Willdenowia* 12: 56. 1982; Doğan in *Davis, Fl. Turkey* 9: 318. 1985). Th. Raus & H. Scholz

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. Bălg. 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 Iliia, 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

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