



Med-Checklist Notulae, 20

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WERNER GREUTER & THOMAS RAUS (ed.)

Med-Checklist Notulae, 20

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Continuing a series of miscellaneous contributions, by various authors, where hitherto unpublished data relevant to the Med-Checklist project are presented, this instalment deals with the families *Berberidaceae*, *Boraginaceae*, *Chenopodiaceae*, *Compositae*, *Convolvulaceae*, *Crassulaceae*, *Cruciferae*, *Droseraceae*, *Elatinaceae*, *Euphorbiaceae*, *Juglandaceae*, *Labiatae*, *Leguminosae*, *Scrophulariaceae*, *Solanaceae*, *Umbelliferae*, *Valerianaceae*; *Cyperaceae*, *Hydrocharitaceae*, *Gramineae*, *Pontederiaceae*, and *Potamogetonaceae*. It includes new country and area records, taxonomic and distributional considerations. A new combination is validated in *Gymnospermium*.

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 30: 229-243. 2000.

Berberidaceae

Gymnospermium altaicum* subsp. *scipetarum (E. Mayer & Pulević) Kit Tan & Mullaj, **comb. & stat. nov.** ≡ *Gymnospermium scipetarum* E. Mayer & Pulević in Willdenowia 13: 278. 1984.

“*Gymnospermium shqipëtarum*” was first described from Albania, and invalidly named, by Papparisto & Qosja (in Bul. Shkenc. Nat. Univ. Tiranës 30(5,2): 95. 1976). The name was later validated by Mayer & Pulević, with the spelling *G. scipetarum* and typified by material from adjacent Montenegro. The taxon was not mentioned in Tutin & al. (Fl. Eur., ed. 2, 1. 1993). We consider that the *Gymnospermium* plants of the western Balkan Peninsula are best treated as a subspecies of the wide-ranging *G. altaicum* (Pallas) Spach, the type of which is from the Altai Mountains. Recent collections of *G. altaicum* subsp. *scipetarum* include the following: Albania, District of Elbasan, Elbasan Mts., in *Fagus sylvatica* forest, alt. 900 m, 26.6.2000, *Tan & Vold*

23203 (C, GB, LD) [occurring in thousands and covering whole slopes, with tubers reaching 12 cm in diameter]; id., District of Krlež, Krleža Mts., in clearings of open woodland with *Pteridium aquilinum*, alt. 920 m, 28.6.2000, *Tan & Vold* 23205 (C, GB, LD) [tubers much smaller, with an average size of 2-3 cm; presumably the population was but recently established].
K. Tan & A. Mullaj

Boraginaceae

Alkanna stribrnyi Velen.

+ **Tu:** Turkey [A1 Tekirdağ]: Kumbaga (Rodosto, Tekirdağ), by "St. Anna" Chapel, 4.5. 1913, *Nikolov* (SO). – A Balkan endemic not previously recorded for Turkey-in-Europe, so far known from N Greece, former Yugoslav Macedonia and Bulgaria (see Greuter & al., Med-Checklist 1: 68. 1984).
D. Dimitrov

Cynoglossum montanum L. (= *C. hungaricum* Simonk.)

+ **Gr:** Strid (in Strid & Tan, Mount. Fl. Greece 2: 59. 1991) is correct in stating that this species occurs in the northern part of Greece. *Cynoglossum montanum* is absent only from the Peloponnese, not from Greece as a whole as was claimed in a previous entry signed by me (in *Willdenowia* 30: 230-231. 2000), due to a regrettable misunderstanding of the editors.
K. Sutorý

Cynoglossum nebrodense Guss.

+ **Gr:** I disagree with Greuter & al. (Med-Checklist 1: 79. 1984) who, based on Pignatti (Fl. Ital. 2: 430. 1982) and followed by Strid (in Strid & Tan, Mount. Fl. Greece 2: 59. 1991), excluded this species from the flora of Greece. [A statement to the contrary (Sutorý in *Willdenowia* 30: 231. 2000) was based on an editorial misunderstanding.] *Cynoglossum nebrodense* has been collected repeatedly on Mt Dirfis, Island of Evvia, in the second half of the 19th century, e.g. by *Orphanides* (E, G, GJO, JE, PR, W, WU), *Pichler* (BM, BP, G, K, MPU, P, PRC, WU) and *Heldreich* (FI, WU).
K. Sutorý

Chenopodiaceae

Bassia hyssopifolia (Pall.) Kuntze

A **Cr:** Greece, Crete, Nomos of Lasithi, Eparchia of Ierapetra: Koutsounari, behind the shore and close to the camping site, 20.9.1999, *Deschatres* (LG, herb. Deschatres). – A single plant has been seen, so the occurrence is likely casual; however, a juvenile individual had already been collected by Deschatres on 30.5.1996, in the same locality. *Bassia hyssopifolia* has not so far been recorded from SE Europe or Anatolia, being known in the wild from Spain (Cirujano & al. in *Castroviejo & al.*, Fl. Iber. 2: 519-529. 1990), then again from the Ukraine and the Syrian Desert eastward to Central Asia and W China, and occurring as an alien in N Italy and N America (Jalas & Suominen, Atlas Fl. Eur. 5: 54-55. 1980; Hedge in *Rechinger*, Fl. Iran. 172: 100-101. 1997).
R. Deschatres & W. Greuter

Chenopodium pumilio R. Br.

A **Si:** Italy, Sicily, Messina: Monti Nebrodi, Bosco di Caronia, estate of Casa Impallationata (37°58'48"N, 14°28'41"E), in yard area of the estate, alt. 825 m, 20.9.2001, *Uotila* 43779 (H 1704981); *ibid.*, on small unpaved forest road near the estate, alt. 810 m, 20.9.2001, *Uotila* 43780 (H 1704979), *Raus* 24701 (B), *Kalheber* (herb. Kalheber). – Several plants were found in NE Sicily during a post-congress excursion of the 10th OPTIMA Meeting held in Palermo on 12-19 September 2001. *Cheno-*

podium pumilio was seen in two neighbouring places in the montane deciduous forest belt, in man-made, somewhat trampled and nitrified habitats amidst forest dominated by *Quercus cerris* var. *gussonei* Borzi; associated ruderal species included *Ch. vulvaria* L. The species belongs to the Australian *Ch.* sect. *Orthosporum* and is widespread in Australia. It has spread to various parts of the world especially with wool, and during the last few decades it has become naturalised in several Mediterranean countries, including Portugal, Spain and Greece (Akeroyd in Tutin & al., Fl. Eur., ed. 2, 1: 112. 1993; Uotila & Tan in Phitos & al., Fl. Hellen. 1: 120-121. 1997). In its Sicilian locality the species was very scant, perhaps but recently introduced; its status is therefore that of an alien not yet fully established. However it is likely to become established, as the plants bore ripe seeds. The species has possibly been overlooked or confused with other aromatic *Chenopodium* species, *Ch. ambrosioides* L. in particular, in Sicily and elsewhere.
P. Uotila, Th. Raus & H. Kalheber

Compositae

Artemisia verlotiorum Lamotte

P Gr: Greece, Thessaly, Nomos of Trikala, Eparchia of Kalambaka: Road to Metsovo, before Koridalos at about road km 55 (coming from Kalambaka), roadside, 7.10.1999, Deschatres (B, herb. Deschatres). – A stoloniferous herb of E Asian origin, long known as an invasive weed in Central and W Europe but apparently slow to conquer the Balkan Peninsula. There it started spreading from the north, having become naturalised in Croatia along roadsides, on railway embankments, and even at forest margins and on river banks. It was first noted in Istria and around Zagreb in the late 1960s and is now found in several places along the Dalmatian littoral, especially around Split (Smital & al. in Acta Bot. Croat. 55/56: 53-63. 1998). It was probably overlooked elsewhere, owing to its late flowering season, and should be looked for in Albania, in particular.
R. Deschatres & W. Greuter

Centaurea cyanus L.

N Cr: Greece, Crete, Nomos of Chania, Eparchia of Apokoronos: Neos Kournas, between Dramia and Balarina (35°21'N, 24°18'E), grazed field on sandy loam, wet in spring-time, with *Trifolium pallidum* Waldst. & Kit., alt. 5-10 m, 30.5.1999, Böhling 10300 (B). – Given as “unbeständig” (casual) for Crete by Zahn & Schönfelder (Exkursionsfl. Kreta: 327. 1995), later as “possibly naturalised” by Chilton & Turland (Fl. Crete, Suppl.: 28. 1997). The cited find extends the known Cretan range to the western part of the island and the altitudinal range down to near sea, so that the species should be considered as fully established. Rechinger (in Akad. Wiss. Wien, Math-Naturwiss. Kl., Denkschr. 105(1): 662. 1944) even notes that the species is not a weed of cereal fields in the Aegean but takes part in natural formations.

N. Böhling

Phagnalon saxatile (L.) Cass.

+ Cr: Greece, Crete, Nomos of Chania, Eparchia of Kissamos: Elafonisi island off SW Crete (35°16'N, 23°31'E), phrygana on thinly sand-covered Tertiary conglomerate, with *Coridothymus capitatus* (L.) Rchb. f., *Euphorbia dendroides* Forssk., *Olea europaea* subsp. *sylvestris* (Mill.) Lehr, *Inula crithmoides* L., *Plantago squarrosa* Murray, etc., alt. 20-30 m, 23.9.1997, Böhling 6341 (B); *ibid.*, 23.10.1997, Böhling & Greuter 6893 (B). – The species is easily confused with *P. graecum* Boiss. & Heldr., but the cited collections show its characteristic middle phyllaries with undulate margins (Bramwell in Tutin & al., Fl. Eur. 4: 133. 1976; Pignatti, Fl. Ital. 3: 40-41. 1982).

N. Böhling

Scorzonera judaica Eig

- + **AE:** Greece, East Aegean Islands, Nomos of Dodekanisos, Eparchia of Rodos: Mt Attaviros (36°11'N, 27°57'E), open phrygana on limestone rock, alt. c. 900 m, together with *Scorzonera cana* (C. A. Mey.) O. Hoffm., 6.5.1999, *Böhling 9810* (B). – First record for Greece of this Irano-Turanian species, which Chamberlain (in Davis, Fl. Turkey 5: 652. 1975) treats under the junior synonym *S. pseudolanata* Grossh. (see Feinbrun-Dothan, Fl. Palaest. 3: 427, t. 732. 1978). The plants differ from the similar *S. sublanata* Lipsch. in their smaller habit and wider, undulate and densely lanate leaves. They are a good match of Feinbrun-Dothan's (l.c) plate. A record of "*S. lanata*" from Mt Profitis Ilias on Rodos (Rechinger in Akad. Wiss. Wien, Math.-Naturwiss. Kl., Denkschr. 105(1): 686. 1944) was tentatively included in *S. sublanata* by Chamberlain (l.c.) already. The group is critical and requires further study.
N. Böhling

*Convolvulaceae**Cuscuta campestris* Yunck.

- N **Cr:** Greece, Crete, Nomos of Iraklio, Eparchia of Pirjiotisi: Near Timbaki, dry river bed of the Jeropotamos, on *Xanthium italicum* Moretti, 9.9.1999, *Deschatres* (B, herb. Deschatres). – A N American parasite, widely naturalised in the Mediterranean area and elsewhere but not so far recorded from Crete. R. Deschatres & W. Greuter

*Crassulaceae**Sedum cepaea* L.

- + **Cr:** Greece, Crete, Nomos of Chania, Eparchia of Kissamos: Elos, old wall in the village, close to the locality of *Campanula cretica* (A. DC.) D. Dietr., 16.6.2000, *Deschatres* (B, herb. Deschatres); also growing on fresh and shady talus all along the footpath branching off at that point. Two sterile specimens collected near Prasses (Eparchia of Kidonia) at 500-550 m on 27.4.1960 (*Greuter 2537, 2570*, herb. Greuter), tentatively identified as *Sedum creticum*, likely belong here instead, but in the absence of flowers it is difficult to be sure. – *S. cepaea* has a wide circum-Mediterranean distribution (extending northward into Switzerland and Romania) but was hitherto believed to be absent from Crete, where it is replaced by its cousin *S. creticum* C. Presl (incl. *S. hierapetrae* Rech. f. and *S. cretense* Maire – for details, see e.g. Král in Preslia 59: 307-310. 1987 and Hart in Taxon 38: 647-652. 1989). A former Cretan record of *S. cepaea* could be shown to rest on misinterpretation, by Fröderström, of the very type material of *S. creticum* (see Greuter in Willdenowia 11: 277. 1981). *S. cepaea*, when normally grown (as is the case of the Elos specimen), is readily distinguished from *S. creticum* by its leaves that usually stand in whorls of four, of which at least the upper are spaced along the stem (the lower being shed at flowering). However, habit (inclusive of branching and duration) varies greatly in this species group, and flower features offer a more reliable distinction: *S. cepaea* differs from *S. creticum* by its lax, loosely branched inflorescence, its longer and narrower calyx segments and petals, and by more slender carpels. Flower colour varies (white in the Elos plants, pink with a purple midvein normally). The present record suggests that *S. cepaea* replaces *S. creticum* in the NW corner of Crete. R. Deschatres & W. Greuter

*Cruciferae**Armoracia macrocarpa* (Waldst. & Kit.) Baumg.

- + **Bu:** Bulgaria: Rousse district, damp areas near the dike at the village of Brashlen, 4.6.1951, *Kitanov* (SO). – This hydrophyte, not previously recorded from Bulgaria,

was only known from the marshlands of the central Danubian basin in Hungary, Yugoslavia and Romania (see Ball in Tutin & al., Fl. Eur., ed. 2, 1: 364. 1993).

D. Dimitrov

Droseraceae

Aldrovanda vesiculosa L.

E Gr: Greece, Makedonia, Nomos of Pella, Eparchia of Jannitsa: Enidze [Jannitsa], Vardar plain, 9.9.1908, *Petkov* (SO). – In the Mediterranean, this rare hydrophyte that is dramatically declining over much of its European range (Webb in Tutin & al., Fl. Eur., ed. 2, 1: 421. 1993) is known to survive in a few places of S France, N Italy and former Yugoslavia (Serbia, Macedonia) only, but had never been mentioned from Greece in relevant basic floras (Walters in Hedberg, Syst. Bot. Pl. Util. Biosph. Cons.: 77. 1979). In fact, an old source (*Petkov*, Fl. Aquat. Algol. Macédoine, 1910) of a record of *Aldrovanda* from what is today the Axios plain of N Greece, generally neglected, is substantiated by the cited specimen. Since the Axios plain NE of Thessaloniki has since become an area of intensive agriculture (see, e.g., Raus in Lagascalia 19: 852, tab. 1. 1997), with all former potential habitats of *A. vesiculosa* completely drained, the species is presumed extinct in Greece, just as in Bulgaria (Greuter & al., Med-Checklist 3: 198. 1986).

D. Dimitrov & Th. Raus

Elatinaceae

Bergia capensis L.

P Gr: Greece, Peloponnese, Nomos of Messinia, Eparchia of Kalamata: Between Kalamata and Messini, southeast of the airport, in rice fields, associated with *Cyperus difformis* L., *Ammannia coccinea* Rottb., *Lindernia dubia* (L.) Pennell, and other weeds, 3.10.2001, *Raabe* (B, MSTR, herb. Raabe; confirm. Raus). – A glabrous weed of palaeotropical origin, not previously recorded from Greece. In Europe it was hitherto known only “naturalised as a weed in rice-fields in E Spain” (Walters in Tutin & al., Fl. Eur. 2: 295. 1968). Its degree of naturalisation in S Greece is unclear. The similar but glandular-hairy *Bergia ammannioides* Roth, which accompanies *B. capensis* in, e.g., Egyptian rice fields (Boulos, Fl. Egypt 2: 133. 2000), should be looked for in S European rice fields, too.

U. Raabe

Euphorbiaceae

Euphorbia prostrata Aiton (*Chamaesyce prostrata* (Aiton) Small)

P Cr: Greece, Crete, Nomos of Chania, Eparchia of Kidonia: West of the City of Chania, car park of a supermarket, 27.9.1999, *Deschatres* (B, herb. Deschatres). – A New World species, probably of Caribbean origin, which in spite of presenting distinctive diagnostic features (see Benedí & Orell in Collect. Bot. 21: 9-55. 1992; Hügin & Hügin in Ber. Bayer. Bot. Ges. 68: 103-121. 1997) has so far been generally overlooked. It now turns out to be widespread and fully naturalised in most of S Europe, from Portugal to at least Slovenia (Trpin in Acta Biol. Sloven. 41: 103-108. 1997), extending northward through Switzerland to S Germany (Hügin in Feddes Repert. 110: 249. 1999). Smith & Tutin (in Tutin & al., Fl. Eur. 2: 216. 1968) mention it from Greece (Gr), a record fortuitously omitted by Greuter & al. (Med-Checklist 3: 219. 1986). According to Benedí (in Castroviejo & al., F. Iber. 8: 289. 1997) it shows strong colonising ability in the Iberian Peninsula where it is rapidly expanding. In the E Mediterranean, the same proves true for the Greek mainland (Raus in Willdenowia 17: 167-168).

R. Deschatres & W. Greuter

*Juglandaceae**Juglans regia* L.

- N Cr:** Greece, Crete, Nomos of Rethimno, Eparchia of Agios Vasilios: Spili (35°13'15"N, 24°31'58"E), on open ground (sand over greyish green ophioliths) by a recently built apartment house, together with *Anthemis melanolepis* Boiss., *Conyza bonariensis* (L.) Cronq., *Lactuca serriola* L., *Polygonum aviculare* subsp. *neglectum* (Besser) Arcang., *Sinapis alba* L., etc., alt. 380 m, 1 m tall sapling sprouted from seed from a nearby cultivated tree, dispersed by *Corvus corone cornix* (Ilias Stratidakis, Spili, pers. comm.), 21.9.1997, *Böhling obs.*; *ibid.* (35°13'04"N, 24°32'05"E), moist wayside near a former water mill, with *Mentha longifolia* (L.) Huds., *Pulicaria dysenterica* (L.) Bernh., *Teucrium scordium* subsp. *scordioides* (Schreb.) Arcang., *Trifolium repens* L. subsp. *repens*, *Verbena officinalis* L., etc., alt. 380 m, sapling growing in a fence and obviously not planted, 29.9.1997, *Böhling obs.* – The naturalised status of this tree species in Crete, already implicitly accepted by Jahn & Schönfelder (*Exkursionsfl. Kreta*: 57. 1995), is corroborated by the above observations. N. Böhling

*Labiatae**Satureja croatica* (Pers.) Briq.

- + Al:** Albania: Ses [Theth], from the camp above the village, 31.7.1958, *Kitanov* (SO). – So far believed to be confined to the Adriatic coastlands of former Yugoslavia (Chater & Guinea in Tutin & al., *Fl. Eur.* 3: 169. 1972, as *Micromeria croatica* [Pers.] Schott; Greuter & al., *Med-Checklist* 3: 335. 1986). D. Dimitrov

*Leguminosae**Trifolium affine* C. Presl

- + Gr:** Greece, Makedonia, Nomos of Kavala, Eparchia of Thasos: Island of Thasos, Potos, in phrygana, 25.4.1943, *Stojanov & Kitanov* (SO). – An E Mediterranean element known to occur in Bulgaria and Turkey (Coombe in Tutin & al., *Fl. Eur.* 2: 167. 1968; Zohary, *Gen. Trifolium*: 443-444. 1984; Greuter & al., *Med-Checklist* 4: 178.1989) but not mentioned for Greece. D. Dimitrov

*Scrophulariaceae**Rhynchocorys elephas* (L.) Griseb.

- + Ju:** Macedonia: Prilep, on marshy places near the river Zmeevica, 20.7.1917, *Nikolov* (SO). – The total range of this semiparasitic species extends from Sicily and S Italy through the Balkan Peninsula, Anatolia and the Caucasus to N Iran. On the Balkan Peninsula, it was known from Central Greece and Central Bulgaria (Richardson in Tutin & al., *Fl. Eur.* 3: 281. 1972). Its occurrence in adjacent parts of former Yugoslavia was therefore to be expected. D. Dimitrov

Verbascum pseudonobile Stoj. & Stefanov

- + Ju:** Macedonia: Ochrid, 16.5.1948, *Touleškov* (SO). – This Balkan endemic was thought to be restricted to SW Bulgaria and NE Greece (Ferguson in Tutin & al., *Fl. Eur.* 3: 214. 1972). Its occurrence in adjacent parts of former Yugoslavia is not surprising. D. Dimitrov

*Solanaceae**Nicandra physalodes* (L.) Gaertn.

- P Cr:** Greece, Crete, Nomos and Eparchia of Lasithi: On the ascent to the Lasithi plain near Rousakiana, small garden to the right of the road, 8.10.1997, *Deschatres* (B, herb.

Deschatres); does not appear to be cultivated but rather tolerated in the garden, doubtless because of its nice blue flowers and curious fruits. – An ornamental of S American (Peruvian) origin, tending to escape from cultivation and reported as more or less naturalised in various countries of Central and SE Europe. Not so far reported from the Cretan area. R. Deschatres & W. Greuter

Physalis angulata L.

P Gr: Greece, Peloponnese, Nomos of Ilia, Eparchia of Olimbia: Kato Samiko NW of Zacharo, moist wayside in open coastal *Pinus halepensis* Mill. subsp. *halepensis* forest on maritime sands, accompanied by *Salvia verbenaca* L., *Heliotropium europaeum* L., *Amaranthus blitoides* (L.) Watson, *A. hybridus* L. and *A. retroflexus* L., alt. c. 10 m, 6.10.1995, *Böhling 4519* (herb. Böhling); id.: SE of Pirgos (37°38'40"N, 21°28'29"E), upper bank of river Alphios, ruderal places near recreation area, alt. c. 10 m, 28.10.2001, about 10 plants up to 4 dm tall, vitally flowering and fruiting, *Böhling 11361* (herb. Böhling). – A xenophyte of American origin not previously recorded from Greece but known from adjacent Albania (Tan & Mullaj in Willdenowia 30: 240. 2000). The distance between the two Greek localities is only c. 15 km; both sites can be characterised as ruderal, somewhat nitrophytic, seasonally wet, sandy and coastal. The berries of *Physalis angulata* are edible and the Greek occurrences might origin from remains of picnic meals. N. Böhling

Umbelliferae

Daucus involucratus Sm.

+ Tu: Turkey [A1 Kırklareli]: In vinetis prope urbem Lozengrad [Kırklareli], solo calcareo, 14.7.1899, *Mateev* (SO). – An annual species, widespread in the Aegean region and its surroundings but not mentioned for Turkey-in-Europe in relevant basic floras (Tutin & al., Fl. Eur. 2: 374. 1968; Davis, Fl. Turkey 4: 534. 1972, and supplements). D. Dimitrov

Valerianaceae

Centranthus longiflorus subsp. *junceus* (Boiss. & Heldr.) I. Richardson

+ Al: Albania: Ostrovica Planina, the northern part, 11.7.1958, *Kitanov & Petrov* (SO). – The species, not mentioned for Albania by Richardson (in Tutin & al., Fl. Eur. 4: 56. 1976), is included in Albanian basic floras (Demiri, Fl. Eksk. Shqipërisë: 433. 1983; Qosja & al., Fl. Shqipërisë 3: 275. 1996), but without specification of subspecies. Outside of Albania, *Centranthus longiflorus* subsp. *junceus* is known to occur in rock crevices and on scree in S and Central Greece (Franzén in Strid & Tan, Mount. Fl. Greece 2: 349. 1991), whereas subsp. *kellereri* (Stoj. & al.) I. Richardson is confined to W Bulgaria (Andreev & al., Opred. Visš. Rast. Bălg.: 765. 1992, as *C. kellereri* (Stoj. & al.) Stoj. & Stefanov). D. Dimitrov

Cyperaceae

Schoenoplectus lacustris (L.) Palla

+ Cr: Greece, Crete, Nomos and Eparchia of Lasithi: Lasithi plain, in the river between Moni Vidiani and Kato Metochi, in large tufts, 29.5.2000, *Deschatres* (B, herb. Deschatres). – There is an old Cretan record of "*Scirpus lacustris*" going back to Sibthorp (Smith, Fl. Graec. Prodr. 1: 33. 1806), which is highly dubious and has generally been disregarded. Otherwise, this is the first report of *Schoenoplectus lacustris* from the Cretan area. The closely related *S. tabernaemontani* (C. C. Gmel.) Palla, of-

ten included as a subspecies in *S. lacustris*, is known from a single W Cretan locality, the Ajia Lake (see Greuter in Ann. Mus. Goulandris 1: 70. 1973). Both taxa are widespread in Europe but very rare in the Aegean area. R. Deschatres & W. Greuter

Hydrocharitaceae

Stratiotes aloides L.

E Gr: Greece, Makedonia, Nomos of Pella, Eparchia of Jannitsa: Enidze [Jannitsa], natant plants in Vardar plain, 9.9.1908, *Petkov* (SO). – This boreal species is known from much of Europe but rare in most of the south and west. It is not mentioned for Greece in Tutin & al. (Fl. Eur. 5: 4. 1980). However, *Petkov* (Fl. Aquat. Algol. Macédoine, 1910) had mentioned the occurrence of *Stratiotes* populations in what is today the Axios plain of N Greece, NE of Thessaloniki. This record, neglected by later basic floras, is substantiated by the above-mentioned herbarium material. The species is presumed extinct in Greece, because the Axios plain has been transformed into an area of “industrial”, irrigated rice fields that completely supplanted natural wetlands, the suitable habitats of *S. aloides* (for the actual ecological situation see, e.g., Raus in Lagascalia 19: 852, tab. 1. 1997). D. Dimitrov & Th. Raus

Gramineae

Phragmites frutescens H. Scholz

+ IL: Israel, Philistean Plain: Gaza, 6.5.1927, *Eig & al.* (HUI); *ibid.*: 1 km E of Lod, muddy soil, 20.5.2001, *Danin* (HUI); *id.*, Hula Plain: Tel Anafa near Kibbutz Shamir, 4.6.1978, *Miller* (HUI); *ibid.*: Kfar Blum, 1984, *Koren* (HUI); *id.*, Kinnrot Valley: northern shore of the Kinneret, 27.11.1999, *Prasse* (B); *ibid.*: near Migdal, deep soil, 23.7.2001, *Danin* (HUI); *id.*, Acco Plain: 1 km E of Acco, a muddy high terrace of Nahal Na’aman, 13.5.2001, *Danin* (HUI); *id.*: Sharon, 2 km S of En HaChoresh, muddy ditch, 16.4.2001, *Danin & Porat* (B, HUI); *ibid.*: 3 km N of Hadera, muddy roadside, 25.4.2001, *Danin* (HUI). – In Israel this somewhat spinescent reed was regarded for many years as a “terrestrial form” of *Phragmites australis* (Cav.) Trin. (Feinbrun-Dothan, Fl. Palaest. 4: 270. 1986; Feinbrun-Dothan & Danin, Anal. Fl. Eretz Israel, 1991). It seems to have been noticed first by Moshe Koren, who collected it more than 20 years ago but failed to attract the attention of botanists at the Hebrew University of Jerusalem and Tel Aviv University. The description of *Ph. frutescens* (Scholz in Taxon 45: 253. 1996) and the recent paper on its occurrence all over Greece (Scholz & Böhling in Willdenowia 30: 251-258. 2000) prompted a study on the identity of reeds in Israel. Two specimens of *Ph. frutescens* from northern Israel were determined by Scholz. Comparison with a terrestrial form of genuine *Ph. australis* from the southern Dead Sea Valley, determined by Scholz as well, revealed good diagnostic characters to differentiate the two species. Essentially, *Ph. australis* functions as a geophyte or hemicryptophyte that produces new culms about the end of March to replace those that carried panicles last year; the sterile culms, when undisturbed, keep carrying leaves but do not produce axillary branches (damaged culms, e.g. as at roadsides, develop side branches with small spinescent leaves); the lower nodes of old culms are hidden by the leaf sheaths of the previous year, for the lamina is shed from an abscission line along the ligule, i.e. the base of the leaf lamina. *Ph. frutescens*, by the look of its above ground parts in April and May, is a rhizomatous chamaephyte or phanerophyte, with new culms sprouting of from the underground rhizome in June-July; the previous year’s panicles are subtended by slowly dying and sometime overtopping old leaves and by newly produced lateral branches carrying

small, spinescent leaves; the lower, leafless nodes are unsheathed, as the abscission line of old leaves is at the sheath base. The two species also differ in habitat preference: *Ph. australis* grows near water, whereas *Ph. frutescens* prefers muddy places. In coastal Israel, on the banks of the rivers Nahal Alexander, Nahal Hadera and Nahal Poleg, where the muddy soil becomes mixed with sand, *Ph. australis* borders the water and *Ph. frutescens* constitutes an outer belt. Along the coast of Mt Carmel and the Galilee and on the Esdraelon Plain, in depressions, only *Ph. australis* was found so far.

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Stipa papposa Nees

N IJ: Israel: Judean Mts, Jerusalem, the Hebrew University campus at Givat Ram, abandoned, not irrigated flower beds, 2.6.2001, *Danin* (HUJ; det. Scholz). – A S American grass (known from Brazil, Uruguay, Argentina and Chile), characterised by glumes shorter than lemma, which bears pappus-like hairs apically and a glabrous awn. It seems to have been introduced as an ornamental, but now starts to expand and become naturalised in Israel. It is also reported as a xenophyte from a similar habitat in S Africa, where a single population on the University of Cape Town campus was sampled in 1963 and again in 1980 (Gibbs Russell & al. in Mem. Bot. Surv. S. Afr. 58: 318. 1990).

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Pontederiaceae

Heteranthera limosa (Sw.) Willd.

P Gr: Greece, Peloponnese, Nomos and Eparchia of Ilia: Between Areti and Lechena, E of the national road from Patras to Pirgos, aquatic weed in rice fields, a small population, associated with *Ammannia coccinea* Rottb., *Cyperus difformis* L., *Zannichellia palustris* L. and *Chara vulgaris* L., flowers white, 24.9.2001, *Raabe* (B, MSTR, herb. Raabe; det. Raus). – Not previously reported from Greek rice fields. The degree of naturalisation in S Greece remains uncertain so far. The species is easily confused with *Heteranthera rotundifolia* (Kunth) Griseb., which should be looked for in Mediterranean rice fields, too, but differs e.g. by stamens that are unbent, and vegetative shoots not elongated (for a key and illustrations, see Horn in Harling & Andersson, Fl. Ecuador 29: 7-12. 1987). In Europe, this weed of American origin was hitherto only reported as naturalised in rice fields of N Italy, near Pavia (Raynal in Saussurea 10: 62. 1979; Pignatti, Fl. Ital. 3: 410. 1982).

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Potamogetonaceae

Potamogeton trichoides Cham. & Schltdl.

+ Cr: Greece, Crete, Nomos and Eparchia of Kidonia: Artificial lake near Ajia, 13.8.1988, *Yannitsaros 7945* (ATH). – Gradstein & Smittenberg, in the spring of 1967, had observed in this very place a plant they referred to *Potamogeton trichoides* (see Greuter in Ann. Mus. Goulandris 1: 65. 1973). In 1976, however, Yannitsaros collected *P. pusillus* L. (= *P. panormitanus* Biv.) in the lake near Ajia, and their material (*Yannitsaros 6099*) was identified by one of us (P.U.) in 1988, an identity now reconfirmed. When Yannitsaros & Koumpli-Sovantzi (in Bot. Chron. 10: 582-583. 1991) published this find as a new record for Crete and the whole S Aegean area, they simultaneously, and understandably, noted that the previous record of *P. trichoides*, based only on field notes, was to be deleted. However, in that same paper they included reference to a second specimen from the same lake (*Yannitsaros 7945*), which turns out to be, not *P. pusillus* as they had thought, but *P. trichoides* – thus confirming Gradstein & Smittenberg's previous record. A recent collection from the lake near

Ajia, made on 15.6.2000 by Deschatres, in turn belongs to *P. pusillus*, so that obviously both species grew and still grow side by side in the same place, their sole known S Aegean locality.

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