

## Additions to the flora of the Prespa National Park, Greece

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**Abstract.** The vascular flora of the Prespa National Park (Greece) has been critically revised. C. 610 species recorded after Pavlides (1985) are listed. Some previously published records were found to be incorrect or dubious and should be deleted. As a result, 1769 species are now recorded for this area in the north-western corner of Greece, compared with 1249 in the publication by Pavlides. New or excluded taxa are listed alphabetically with locality and collection data, sometimes also with comments on taxonomy, distribution, etc.

**Key words:** flora, Greece, Mount Devas, Mount Triklario, Mount Varnous, Prespa, vascular plants.

## Introduction

The Prespa National Park (PNP) in the north-western corner of Greece covers an area of 257 km<sup>2</sup> and extends altitudinally from 850 m (the level of the two lakes) to 2334 m on Mt Varnous (also known as Varnountas, Kalo Nero, Bela Voda or Peristeri). The area is characterized by great geological diversity with gneiss and granite on Mt Varnous and limestone on the hills and lower mountains around the lakes. On the Greek side, the lakes are surrounded by extensive reedbeds and flat farmland used mainly for bean cultivation. The Prespa area is renowned for its high biological diversity and is particularly famous as a fine bird locality. For general information on the area, see, e.g., Crivelli & Catsadorakis (1997), Catsadorakis (1999) and Standring & al. (2009).

In 1974 most of Greek Prespa was declared a National Park, including the Greek parts of the Prespa Lakes and the slopes of the mountains Varnous and Triklario that overlook them. The Society for the Protection of Prespa (SPP), an NGO established in 1991, works on nature conservation and natural history projects in the area. Following a meeting in 2 February 2000 of the Prime Ministers of Greece, the Former Yugoslav Republic of Macedonia (FYROM) and Albania, the protected areas of the three countries around the Prespa Lakes now form the Transboundary Prespa Park. The Greek part of the Prespa Park comprises two sites of the European Union 'Natura 2000' network of protected areas, 'Prespa National Park' (GR 1340001) and 'Varnoundas Mountain' (GR 1340003). The present paper refers to the entire Greek Prespa National Park (PNP), encompassing both Natura 2000 sites, which fall under

the responsibility of the Prespa Park Management Body (PPMB) since 2003.

Pavlides, a botanist at the Aristotle University of Thessaloniki, published an extensive geobotanical study of the Prespa National Park in 1985, with an annotated list of 1249 species of vascular plants. In addition to his own collections, Pavlides frequently cited records by Zaganiaris (1939, 1940), Quézel & Contandriopoulos (1968) and Quézel (1969). Mt Varnous, which dominates the north-eastern sector of the Greek part of the Prespa National Park, is a large mountain range extending from the pass of Pissoderi (Vigla), northwards across the present national border into FYROM where it is known as Pelister and reaches an altitude of 2600 m; also north of the border it is mainly granitic. This part of the mountain had previously been visited by Grisebach, who climbed from Bitola in early June, 1839, and discovered many interesting species including *Pinus peuce* Griseb., which here forms extensive forest. Orphanides visited the same area in 1862 and collected several new species including two that were subsequently named after him (*Heracleum orphanidis* Boiss. and *Viola orphanidis* Boiss.). Formánek collected in the area in the 1890s, and his gatherings were critically revised by Vandas (1909). None of these three 19<sup>th</sup> century botanists are likely to have extended their travels south of the border into present Greek territory. The first to collect in what is now the Greek part of the Prespa Park may have been Alston & Sandwith, who made important contributions to the flora of Albania and also visited the Prespa area in 1932. Their collections are at BM and K; they include water plants such as *Persicaria amphibia* (in Lake Megali Prespa) and alpine species such as *Ranunculus incomparabilis* (on Mt Varnous above Pissoderi) – both have subsequently been confirmed. Zaganiaris also collected in the area in the 1930s. Only fragments of his herbarium seem to be extant (at the University of Thessaloniki), and his published identifications are sometimes dubious. After the book of Pavlides (1985), some floristic and phytogeographical data are found in subsequent publications such as Strid (1986), Hopp & Petridis (1987), Babalonas & Pavlides (1989), Strid & Kit Tan (1991), Crivelli & Catsadorakis (1997), Catsadorakis (1999), Pavlides (1997a, b), Jordan (2009), Fotiadis & al. (2012a, b), Strid & al. (2012) and Fotiadis (2013), but the bulk of new gatherings and observations remained unpublished.

## Material and methods

We have attempted to summarize floristic data accumulated after the publication by Pavlides (1985) and also to critically assess previous records. Pavlides's herbarium is kept at the premises of SPP in Agios Germanos where large parts of it were studied by A.S. in October 2010 as well as later. More recently it has also been examined by F.S. with the intention of building up a database.

For practical reasons the study area has been defined as localities in the Prefecture of Florina (Nomos Florinis) with geographical coordinates  $>40^{\circ}40'N$  and  $<21^{\circ}16'E$ . This will also include some sites just outside the borders of the Prespa National Park, but in practice many recorded localities are not precise enough to determine whether they are inside or just outside the borders. It would have been desirable to include also areas of the Transboundary Prespa Park in Albania and FYROM, but limited data has been available from here. Thus our study, like that of Pavlides, is limited to Greek territory. Detailed and accurate topographical maps of the area, including boundaries of the National Park and all relevant place names, are found in Standing & al. (2009).

From the area as defined above, 9262 records (herbarium collections, literature reports and field notes) have been registered in the Flora Hellenica Database. Some of the most important collectors after 1984, as represented in the database, are:

- » Bergmeier (2011, 2016): 132 records (mostly taxa new for the area).
- » Kit Tan (1990, 1998, 2016): 287 records.
- » Raus (1986, 1988, 1989, 2011): 153 records.
- » Snogerup (1998): 199 records.
- » Stamatiadou (1985): 55 records [+ 750 before 1985 which were only partly considered by Pavlides].
- » Strid (1989, 1995, 1998, 1999, 2000, 2006, 2009–2016): 2216 records.
- » Willing (1988, 1998, 2004, 2014): 1254 records.

In addition, Fotiadis, Vrahnikis and Kazoglou (2009–2016) have made more than 2000 collections and field notes, which so far have only been partly registered in the database.

The study is based on examination of herbarium material kept mainly at ATH, B, C, G and LD, as well as the Pavlides herbarium (at SPP, Agios Germanos) and the private herbarium of the senior author (A.S.). In addition, all relevant published records have been considered, as well as field notes to the extent that they have been available.



**Fig. 1.** Some species new for the Prespa National Park: **a)** *Acer tataricum*, **b)** *Centaurea adamii*, **c)** *Eryngium palmarum*, **d)** *Impatiens balfourii*, **e)** *Klasea radiata* subsp. *cetinjensis*, **f)** *Lilium candidum*, **g)** *Melampyrum heracleoticum*, **h)** *Onosma visianii*, **i)** *Orchis simia*.

## VASCULAR CRYPTOGAMS

### DRYOPTERIDACEAE

#### *Dryopteris cristata* (L.) A. Gray

Pavlides (1985: 155) reported this species from three localities in PNP, but specimens in his herbarium belong to *D. villarii*. *D. cristata* is a species of N & C Europe with no confirmed localities south of Serbia.

*Dryopteris villarii* (Bellardi) Woyn. ex Schinz & Thell. S of the military post of Koula and above the road to the village of Pili, 950 m. Barren, stony calcareous ground. 1975-05-10, Stamatiadou 18525 (ATH); subsp. *pallida* (Bory) Heywood. – NE of Vrondero, 1450 m. Rocky places, on limestone. 2000-07-22, Schuler 00/398 (B); subsp. *villarii*. – Hag. Germanos ad orientem isthmi lacus Prespa, 1000 m, substr. silic. 1972-06-21, Rechinger 44972 (G); subsp. *villarii*.

VPG (Dimopoulos & al. 2013: 38) retained *D. villarii* and *D. pallida* as separate species, but the differences are obscure.

#### *Polystichum lonchitis* (L.) Roth

1–1.5 km S of the summit of Gortsas Toumba, 2000–2100 m. Alpine meadows and steep rocky slopes, granite. 1981-06-27, Stamatiadou 22186 (ATH). – 4–4.5 km N of the Vigla military post, E of the summit of Bella Voda (Kalo Nero), 1900–2100 m. Alpine meadow with *Vaccinium myrtillus* and *Juniperus communis*, granite. 1981-06-27, Stamatiadou 22106 (ATH).

#### *Polystichum setiferum* (Forssk.) Moore ex Woyn.

Aufstieg zur Kawiniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion bei Pissoderi, 1950–2130 m. Quellstelle. 1982-07-08, Podlech 37458 (G).

### EQUISETACEAE

#### *Equisetum palustre* L.

NO Kotas, 860 m. Feuchte Talauen, Eichenwald, Acke. 1988-08-01, Willing 71942 (B). – This species was reported already by Lavrentiades (1956: 55) “pr. Antartikon”, but not cited by Pavlides (1985).

### SALVINIACEAE

#### *Azolla filiculoides* Lam.

Großer Prespa-See, SO-Ufer W Lemos. Stillwasser-

bereich im *Phragmites australis*-Röhricht. 2011-06-25, Raus 32529 (B). – Großer Prespa-See, S-Ufer, Koula. Stillwasserlagune im *Phragmites australis*-Röhricht. 2011-06-25, Raus 32537 (B). – SE end of Lake Megali Prespa, near mouth of Agios Germanos stream, free-floating in a small pond. 2011-06-26, Strid 57323 (St). – Lake Megali Prespa, freshwater pond next to the SE shore W of Lemos. 2011-06-25, Bergmeier 11/320 (Be). – Lake Megali Prespa, Psarades, shallow water landward of reedbeds. 2016-09-04, Bergmeier 16/237 (Be). Kazoglu has also found it in shallow pools at the northern shores of Lake Mikri Prespa in 2007 and 2010.

This species was first reported in Greece in 1982 and appears to be spreading, especially in the north.

## GYMNOSPERMS

### EPHEDRACEAE

#### *Ephedra distachya* L.

See under *E. nebrodensis*. In Greece *E. distachya* occurs in coastal habitats in the NE and has recently been reported also from Peloponnisos.

#### *Ephedra nebrodensis* Guss.

Pavlides (1985: 58) reported *E. distachya* L. subsp. *distachya* from Agathoto, but specimens under this name in his herbarium belong to *E. nebrodensis*. The latter has been confirmed elsewhere in PNP, e.g., along walking trail from Psarades to Cape Roti (Strid 2016-04-26, obs), and near Sfika (Fotiadis, obs).

### PINACEAE

#### *Abies borisii-regis* Mattf.

Mt. Varnous, E of Ag. Germanos, 2–3 km SE of place called Potistra, margin of mixed fir forest, 1760 m. 2016-08-31, Bergmeier 16/175 (Be).

Trees observed by EB and GF match *A. borisii-regis* in their pubescent twigs, slightly emarginate or obtuse needles and resinous buds. Other native trees in mixed forest on Mt Varnous above Agios Germanos have flat twigs and seem referable to *A. alba* Mill. (Strid, photos). Planted trees in the village of Agios Germanos and probably elsewhere in the area match *A. borisii-regis*.

#### *Pinus peuce* Griseb.

Pavlides (1985: 159) reported this species from “Kalo Nero”, citing Zaganiaris (1940). It forms extensive forest north of the border

(locus classicus), but there appears to be no recent confirmation from the Greek side of Mt Varnous. In Greece *P. peuce* is otherwise known only from a few localities in Mt Voras and Mt Rodopi, always close to the borders.

*Pinus nigra* is very rare in PNP. Pavlides reported it near "Kalo Nero", citing Zaganiaris (1940). In 2016 Strid & Fotiadis observed small, solitary individuals on Mt Triklario (c. 1600 m) and near the windmills on Mt Varnous above the Vigla pass (c. 1750 m), which probably represent *P. nigra*. Pavlides (1985: 159) reported *P. heldreichii* Christ (sub nom. *P. leucodermis* Antoine) from Mt Varnous, based on a map in Fukarek (1975). The occurrence of *P. heldreichii* in the area is plausible but needs confirmation. In young individuals it is hard to tell the difference.

## ANGIOSPERMS

### ACANTHACEAE

*Acanthus greuterianus* Snogerup, B. Snogerup & Strid  
By the village of Vrondero, 1100 m. Fallow fields around the military posts. 1972-06-22, Stamatiadou 15874 (ATH, G). – By Pixos sheepfolds WNW of Pili, 950 m. Meadow and small fields in opening of deciduous oak woodland. 2012-05-22, Strid 57389 (ATH, G, LD).

A newly described species known only from a few localities in NW Greece, and recently reported also from the Albanian side in the Prespa area (Pils 2016: 20).

### *Acanthus hungaricus* (Borbás) Baen.

2–5 km from Pili towards Vrondero, by the hill of Velika Glavia, 950–1050 m. Forest with *Quercus*, *Fraxinus*, *Acer* and *Buxus*. Stony calcareous ground. 1972-06-22, Stamatiadou 15853 (ATH, St). – 3 km from Vrondero to the ruins of Agathoto to the same habitats. 2010-08-05, Fotiadis & Vrahnakis 7014 (Fo).

### ACERACEAE

#### *Acer tataricum* L.

Near the village of Oxia, 880 m. Damp meadow, roadsides and open deciduous woodland. 2016-08-11, Strid 58606 (G, St). – Alluvial plain between Karyes and Oxia. 2016-09-05, Bergmeier (obs).

### ALISMATACEAE

#### *Alisma lanceolatum* With.

NW side of Lake Mikri Prespa, SSE of Koula military post, by road to Pili. Damp grassy meadows

and marshes, 853 m. 1985-07-21, Stamatiadou 22915 (ATH). – S shore of lake Megali Prespa, 3 km W of Plati, small lagoon near the shore, 850 m. 1998-07-01, Snogerup 15876 (LD).

#### *Damasonium bourgaei* Coss.

Reported by Košanin (1932) from Lake Megali Prespa, north of the border. The species has few and scattered localities in Greece.

#### *Sagittaria sagittifolia* L.

The species was recorded by Zaganiaris (1940) from Megali Prespa and Pavlides (1985) from Mikri Prespa, but no specimen exists in the herbarium of Pavlides. It has not been confirmed from the PNP, but there are few and scattered records elsewhere in northern Greece.

### ALLIACEAE

#### *Allium amethystinum* Tausch

2–5 km from Pili towards Vrondero, by the hill of Velika Glavia. Forest with *Quercus*, *Fraxinus*, *Acer* and *Buxus*. Stony calcareous ground, 950–1050 m. 1972-06-22, Stamatiadou 15850 (ATH, BM).

#### *Allium commutatum* Guss.

By the village of Vrondero. Fallow fields around the military posts, 1100 m. 1972-06-22, Stamatiadou 15873 (ATH). Sub nom. *Allium rotundum* L.

#### *Allium cupanii* Raf.

Along small road between Psarades and Vrondero, just N of place called Pixos sheepfolds, 980 m. Open deciduous oak woodland. 2016-08-09, Strid 58543 (St).

According to the extremely narrow species concept of Brullo, Pavone & Salmeri (2015) this collection would probably be referable to the newly described *A. balcanicum*.

#### *Allium guttatum* Steven

Lake Prespa, near and SW of the frontier post of Koula. Stony calcareous ground, 850–900 m. 1972-06-22, Stamatiadou 15805 (ATH).

#### *Allium moschatum* L.

Mt Triklario, in grasslands just outside the National Park. 2010-06-06, Fotiadis & Kazoglou 7036 (Fo). – Mt Devas, just W of the summit area, 1300 m. Rocky limestone slopes with open deciduous woodland. 2016-08-13, Strid 58656 (St).

**Allium oleraceum** L.

Mt. Varnous, E of Ag. Germanos, near place called Potistra, 1430 m, rocky site near wood margin. 2016-08-31. Bergmeier 16/166 (Be).

**Allium rhodopeum** Velen. (syn. *A. paniculatum* subsp. *villosum*)

Along small road between Psarades and Vrondero, just N of place called Pixos sheepfolds, 980 m Open deciduous oak woodland. 2016-08-09, Strid 58545 (G, St).

**AMARANTHACEAE*****Amaranthus albus*** L.

Mikrolimni, 855 m. Ruderalfuren, Seeufer. 1998-07-30, Willing 71502 (B). – Mikrolimni, village roadside. 2016-09-05, Bergmeier (obs).

***Amaranthus cruentus*** L.

Lefkonas. Krautfluren im Ort, Laubwald, 930 m. 2014-10-09, Willing 250231 (B).

***Amaranthus deflexus*** L.

Karyes. Krautfluren am Ort, 935 m. 2014-10-09, Willing 250202 (B). – Psarades, village. 2016-09-04, Bergmeier 16/232 (Be). – Plati, village. 2016-09-07, Bergmeier (obs).

***Amaranthus powellii*** S. Watson

N Prasino, 910 m. Bach, Krautfluren, einz. Laubbäume. 1998-07-29, Willing 71267 (B). – Mikrolimni, 855 m. Ruderalfuren, Seeufer. 1998-07-30, Willing 71483 (B). – SW Lemos, 910 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71636 (B). – By the village of Oxia, 900 m. Beanfield and wetland in agricultural area. 2012-09-30, Strid 57626 (St). – SW of Lefkonas, bean field. 2016-07-19, Bergmeier 16/83 (Be). – Lemos, bean field. 2016-08-30, Bergmeier 16/160-161.

***Amaranthus retroflexus*** L.

Prespa, E of the village Lemos area, 940 m. 1972-07-08, Haristos 3950 (ATH).

**AMARYLLIDACEAE*****Sternbergia colchiciflora*** Waldst. & Kit.

Upper part of Devas, rocky limestone slopes with open woodland of *Juniperus foetidissima*, *J. oxyce-*

*drus*, *Quercus trojana*, *Acer monspessulanum*, 1300 m. 2006-10-14, Strid (obs). – A map in Artelari & Kamari (1991: 241) indicates a dot in the Prespa area, possibly in the same locality.

**APIACEAE*****Anthriscus caucalis*** M. Bieb.

SW Andartiko, 1050 m. Eichenwald, Ackerrand. 2004-05-11, Willing 126820 (B). – Mikrolimni, 860 m. Krautfluren am See. 2004-05-11, Willing 126945 (B). – Aj. Germanos, 1050 m. Krautfluren im Ort, steile felsige Hänge, Laubgebüsch. 2005-05-11, Willing 126995 (B).

***Anthriscus nitidus*** (Wahlenb.) Garcke

This species was reported by Pavlides (1985: 257) “near Opagia and Agathoto”, but specimens in the Pavlides herbarium represent *Chaerophyllum temulum*. The only Greek collection of *Anthriscus nitidus* appears to be Hügin 6953 (B, Hüg) from Chrisi in nom. Kastorias (see Greuter & Raus 1995: 174).

***Anthriscus sylvestris*** (L.) Hoffm.

A report by Pavlides (1985: 257) from Agios Germanos probably refers to subsp. *sylvestris* which has been confirmed by “Kleiner Prespa-See, Oxia, stickstoffreiche Säume im Ort” (2011-06-26, Raus 32551; B). In addition, subsp. *nemorosus* (M. Bieb.) Koso-Pol. has been collected by “village of Vrondero, near the military post, 1100 m. Semi-cultivated fields and openings in woodland” (1985-07-20, Stamatiadou 22902; ATH) and on “Mt Devas, just E of the summit, 1300 m. Mixed woodland on rocky limestone slope” (2012-05-21, Strid 57383; St). Subsp. *fumariooides* (Waldst. & Kit.) Spalik has been collected once, “E of Mikri Prespa, NE of Oxia, 860 m, wet fields” (1998-06-27, Snogerup 15641; LD). The latter is the only record in Greece.

***Bifora radians*** M. Bieb.

Along forest road between Psarades and Pili, near place called Pixos sheepfolds, 1020 m. Open deciduous oak woodland and cultivated fields with many weeds. 2016-06-04, Strid 58365 (G, St). – Near Vrondero, wheat field, 1090 m. 2016-07-20, Bergmeier (obs).

***Bupleurum affine*** Sadler

Umgebung von Vronderon. *Quercus*-Niederwälder mit Lichtungen; Weiderasen mit Kalkfelsdurchragungen, 1200 m. 1986-08-22, Raus & al. 11291 (B). – E of Vrondero, *Juniperus excelsa* open woodland and pas-

tures, together with *B. apiculatum*. 2016-07-21, Bergmeier 16/134 (Be).

***Bupleurum apiculatum* Friv.**

Mt Devas, summit area, 1350 m. Rocky limestone flats and slopes in opening of mixed deciduous/evergreen woodland. 2011-06-25, Strid 57309 (ATH, G, St) = Raus 32515 (B). – Above Mikrolimni, deciduous woodland. 2011-06-26, Bergmeier 11/330 (Be). – E of Vrondero, *Juniperus excelsa* open woodland and pastures, together with *B. affine*. 2016-07-21, Bergmeier 16/135 (Be).

***Bupleurum praecaltum* L.**

4 km westl. Pili, nahe der albanischen Grenze, 1200 m. *Quercus frainetto*-Buschwälder mit Lichtungen und Forstwegen über Silikatgestein. 1986-08-23, Raus & al. 11324 (B). – 3 km SW Psarades. Kalkhänge am Südufer des Großen Prespa-Sees, 900 m. *Juniperus excelsa*-*Carpinus orientalis*-Niederwald mit therophytenreichen Lichtungen. 1989-08-30, Raus & al. 13518 (B). – Above Vrondero (1000–1350 m) in open deciduous woodland. 2010-08-05, Fotiadis 7085 (Fo). – Mt Devas, just W of the summit area, 1300 m. Rocky limestone slopes with open deciduous woodland. 2016-08-13, Strid 58657 (G, St). – Between Psarades and Vrondero, *Quercus trojana* mixed woodland, 1030 m. 2016-09-04, Bergmeier 16/230 (Be).

***Bupleurum trichopodum* Boiss. & Spruner**

Ad Agios Georgios p. p. Psarades, 1020–1100 m. 1990-05-05, Phitos & Kamari 21388 (UPA). – Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 48118 (ATH, G, Kit, LD).

***Carum appuanum* (Viv.) Grande**

Reported by Pavlides in an unpublished addition to his 1985 publication. No details are available and no voucher seems to exist in the Pavlides herbarium. The species is otherwise scattered in northern Greece and the record is feasible.

***Carum meoides* (Griseb.) Halász**

Mt Triklario, area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes with grassland and scattered deciduous woodland. 2016-06-07, Strid 58462 (G, St).

***Chaerophyllum temulum* L.**

W of Mikri Prespa. By the village of Vronderon (Vrondero), 1040 m. Deciduous oak scrub, dry meadows in the vicinity of the filakion just SW of the village, in a shady place. 1985-07-20, Strid 24798 (C, G). – W Andartiko, 1000 m. Ruderalfluren, Krautfluren, Kiefernwald. 1998-07-29, Willing 71314 (B). – Sfika area. Fotiadis (obs). – See also under *Anthriscus nitidus*.

***Dichoropetalum oligophyllum* (Griseb.) Pimenov & Kljuykov**

Mt Varnous: Near the windmills above the pass of Pisoderi, at upper edge of *Fagus* forest, 1800 m. Meadow on rocky granitic slope. 2016-08-10, Strid 58574 (G, St).

A syntype of *Peucedanum oligophyllum* Griseb. is from Mt Pelister, just N of the present border.

***Eryngium amethystinum* L.**

W of Mikra Prespa. By the village of Vronderon (Vrontero). Deciduous oak scrub, dry meadows in the vicinity of the filakion just SW of the village. 1985-07-20, Strid 24791 (St). – Kleiner Prespa-See, SE-Ufer, Mikrolimni, offener *Ostrya carpinifolia*-Wald über Kalkgestein. 2011-06-26, Raus & al. 32548 (B) – Just SW of Mikrolimni. Deciduous woodland on rocky limestone hill, 900 m. 2011-06-26, Strid 57314 (G, St). – Along walking trail from Psarades to Cape Roti. Rocky limestone slopes with mixed scrub including abundant *Buxus sempervirens*, 860–900 m. 2016-04-26, Strid (obs). – Along walking trail from Mikrolimni to ruins of Kranies settlement. Rocky limestone slopes, mostly with deciduous woodland, 860–950 m. 2010-06-06, Strid (obs). – *Juniperus* woodland in Kranies and Agathoto, 850–890 m. Vrahnakis (obs). – Subalpine grassland of Mt Triklario, 1400–1700 m. Fotiadis & Kazoglou (obs).

***Eryngium palmatum* Pancić & Vis.**

Above the village of Oxia, along forest road to the abandoned settlement of Sfika. Deciduous woodland over limestone. 2012-09-13, Strid 57632 (seed collection). – Near the summit of Mt Devas along forest road from the chapel of Agios Georgios. Rocky limestone slopes with open woodland of *Quercus trojana* and *Juniperus*. 2014-07-12, Strid 58096 (G, St). – Mixed deciduous forests to the dirt road from Psarades to Pixos. 2011-07-04, Fotiadis 8113 (Fo). – These records confirm a report by Pavlides (1985: 259) which had previously been doubted.

The Greek sites for this Balkan endemic form only a slight extension of the previously southernmost known localities in Albania and FYROM (cf. Wörz 2006: 227). Reports of *E. palmatum* from elsewhere in Greece probably refer to the somewhat similar *E. wiegandii* Adamović. There are confirmed records of the latter in the foothills of mountains from Voras to Olimbos, but it is probably absent from the Prespa area.

***Eryngium sericum*** Pančić

Reported by Pavlides (1985: 259), based on a record from Kalo Nero by Zaganiaris (1940).

This species is endemic to a small area in the C & N Balkan Peninsula (cf. Wörz 2006: 225). The record from the Prespa area is likely to refer to *E. palmatum* (see above).

***Foeniculum vulgare*** Mill.

Lefkonas. Krautfluren im Ort, Laubwald, 930 m. 2014-10-09, Willing 250240 (B).

***Hellenocarum strictum*** (Griseb.) Hand

Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15906 (ATH).

***Heracleum orphanidis*** Boiss.

Mt Bella Voda, 1950–2100 m. Stony, treeless area with *Juniperus* and *Vaccinium myrtillus*. 1972-06-25, Stamatiadou 16069 (ATH). – In austro-orientali verticum Bela Voda vocatorum, 2000–2050 m. In megaphorbiets clivorum solo granitico. 1976-08-01, Greuter 14159 (Gr, St). – 4.5–5 km from spring known as Vrisi Kalo Nero along road to the village of Ajios Germanos, place called Ramma, 1400 m. Schist. 1981-06-28, Stamatiadou 22221 (ATH). – N of Pissoderi, 1–2 km W of the windmills, 1800 m. Shady places at upper edge of *Fagus* forest, granite. 2014-07-13, Strid s.n. (photo).

This species is not known elsewhere in Greece. The type collection is from the same massif, north of the border: "Legi in regione superiori monti Pelister Macedoniae alt 6000", 1862-07-31, Orphanides 385" (G-BOIS). It is common in this area, mainly as undergrowth in *Pinus peuce* forest over granite at 1600–1800 m (2012-07-07, Strid 57529, herb. St and photo).

***Laser trilobum*** (L.) Borkh.

Mt Sfika (Triklario), 1.5 km SSW of the village of Oxia,

1200 m. Mixed deciduous woodland over limestone. 2009-05-18, Strid (obs). – Observed by Bergmeier in the same locality, 2016-09-05.

A characteristic woodland species scattered elsewhere in northern Greece and extending to the islands of Thasos and Lesvos.

***Malabaila aurea*** (Sm.) Boiss.

Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

***Oenanthe banatica*** Heuffel

Records of this species from Mt Varnous cited by Quezel & Contandriopoulos (1968: 98, Table 2) and Pavlides (1985: 259) are probably incorrect and may refer to *Oe. peucedanifolia* Heuffel.

***Peucedanum aegopodiooides*** (Boiss.) Vandas

In the village of Ag. Germanos, 1000 m. Roadside ditches. 2012-09-13, Strid 57631 (St). – Same area. 2016-08-09, Strid 58571 (St).

This late-flowering species is common along the stream between Lemos and Ag. Germanos and in tributary ditches (also observed by Bergmeier, 2016-07-19).

***Peucedanum carvifolia*** Vill.

Pavlides (1985: 260) reported this species from Opagia. There is no confirmation from PNP nor elsewhere in Greece, and the record is dubious.

***Peucedanum oreoselinum*** (L.) Moench

Pavlides (1985: 260) reported this species from Vavaki-Pixos and Agioneri. A specimen from the latter locality in the Pavlides herbarium belongs to *Physospermum cornubiense*. There are a few confirmed records of *Peucedanum oreoselinum* elsewhere in NW Greece and it is not unthinkable that it could occur in PNP, but confirmation is needed.

***Peucedanum palustre*** (L.) Moench

Reported from streams by Agathoto and Kerasia by Pavlides (1985: 260). A young specimen in the Pavlides herbarium labeled *P. palustre* belongs to a different species but cannot be identified with certainty. *P. palustre* is not otherwise known in Greece and is mainly a species of C & N Europe.

***Physospermum cornubiense*** (L.) DC.

See under *Peucedanum oreoselinum*. – Fotiadis &

Vrahakis observed *Physospermum cornubiense* in *Quercus* forest and thermophilous *Fagus* forests at Lefkonas (1160–1250 m), Devas (1100–1350 m), Daseri (860 m) and Oxia (870 m).

***Sanicula europaea* L.**

Along forest road between the village of Oxia and the deserted village of Sfika, 1200 m. Damp, shady place in *Fagus* forest. 2016-08-11, Strid 58682 (St).

***Scaligeria napiformis* (Spreng.) Grande**

Along walking trail between Psarades and Roti, 900 m. Rocky limestone slopes with mixed deciduous/evergreen scrub. 2016-06-06, Strid 58424 (St).

***Scandix stellata* Banks & Sol.**

Sandy flats between the lakes just east of Koula, 860 m. 2016-04-26, Strid 58278 (G, St).

***Seseli annuum* L.**

This species was reported by Pavlides (1985: 261) from Falakra Triklariou (1500 m), which may be just outside the PNP. It was also reported by Quézel & Contandriopoulos (1968: 29) from Mt Vermio. Both records are dubious and it remains to be established whether *S. annuum* occurs in Greece.

***Seseli montanum* subsp. *tomasinii* (Rchb. f.) Arcang.** SE of Psarades, by road ascending from the sandy spit between Prespa lakes to a small pass, 900–1000 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 2006-10-14, Strid 56181 (B, St).

See Strid (2007: 210).

***Sium latifolium* L.**

SW Lemos, 880 m. Sumpfwiese, Schilf, Weidenäue. 1998-07-30, Willing 71528 (B).

***Smyrnium olusatrum* L.**

Ajios Germanos village area, 1040 m. Fresh places by the stream. 1972-07-09, Haristos 4069 (ATH).

***Torilis africana* Spreng.**

Lake Prespa, plain of Koula, NE of the frontier post, 860. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15771 (ATH). – 3 km SSW of Andartiko, 950 m. Dry grassy meadows and open deciduous scrub over granite. 1998-06-15, Strid & al. 46618 (ATH, G, St).

***Torilis arvensis* (Huds.) Link subsp. *recta* Jury**

Near Vrondero, wheat field, 1090 m. 2016-07-20, Bergmeier 16/114 (Be). – Fotiadis observed the species also in Daseri (890 m), Psarades (880–930 m), Agathoto (870 m), Oxia (870 m) and Kranies (880 m).

Records of subsp. *arvensis*, which occurs in W Europe, are likely to refer to subsp. *recta*.

***Torilis japonica* (Houtt.) DC.**

In grassland above Ag. Germanos village, 1280 m. Fotiadis & Kazoglou (obs).

***Torilis leptophylla* (L.) Rchb. f.**

Above the village of Vrondero, in open *Juniperus* woodland and grassland, 1000–1200 m. Fotiadis & Kazoglou (obs). – Along road from Pili to Daseri, 860–890 m. 2010-06-10, Fotiadis & Vrahakis 7122 (Fo). – Hill WNW of Lefkonas, near eastern shore of Lake Mikri Prespa, 860–900 m. Rocky limestone slopes with grassland and scattered deciduous shrubs. 2016-06-06, Strid 58395 (St).

***Torilis nodosa* (L.) Gaertn.**

*Juniperus excelsa* woodland near Psarades, 910 m. Fotiadis (obs).

***Turgenia latifolia* (L.) Hoffm.**

Along forest road between Psarades and Pili, near place called Pixos sheepfolds, 1020 m. Open deciduous oak woodland and cultivated fields with many weeds. 2016-06-04, Strid 58363 (St).

**ARACEAE**

***Arum cylindraceum* Gasp.**

Lake Mikri Prespa, island of Agios Achilleos, NW end, near the basilica. Meadows and open deciduous woodland, 870 m. 2011-05-19, Strid (photo). – Along walking trail from Psarades to Cape Roti. Rocky limestone slopes with mixed scrub including abundant *Buxus sempervirens*, 860–900 m. 2016-04-26, Strid (obs).

***Biarum tenuifolium* subsp. *abbreviatum* (Schott) K. Richt.**

Mt Devas, summit area. Rocky limestone flats in opening of deciduous woodland. 1350 m. 2010-06-04, Strid s.n. Cultivated in Oerbaek, Denmark, phot. 2012-08-26.

**ARISTOLOCHIACEAE*****Asarum europaeum* L.**

Summit Peneriga N of the Pisodheri pass, 2090–2110 m. Alpine meadows with scattered *Juniperus* sp. and *Vaccinium myrtillus*. 1992-06-22, Greuter & Zimmer 23727 (B).

This collection was long the only Greek record for a widespread, C European species. Recently Constantinidis (pers. comm., 2016) has reported it from one more locality in nom. Pellis.

**APOCYNACEAE*****Vinca balcanica* Pénzes**

Reported by Pavlides (1985: 161) from field margins near the village of Mileona. Plants in the Pavlides herbarium are rather small-flowered but otherwise match *V. major* L. and are probably not specifically different. For notes on this group, see also Meyer (2011: 117).

**ASTERACEAE*****Achillea clypeolata* Sm.**

Au lac Mikri Prespa. Reported by Parent (2005: 233).

***Achillea collina* (Wirtg.) Heimerl**

Mt Devas, summit area c. 2 km N of Pili, 1200–1350 m. Rocky limestone slopes and flats in opening of mixed woodland. 2010-06-04, Strid 57187 (LD).

***Achillea distans* Willd.**

In austro-orientali verticum Bela Voda vocatorum, 2000–2050 m. In megaphorbiets clivorum solo granitico. 1976-08-01, Greuter 14141 (Gr, St).

***Achillea holosericea* Sm.**

Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15909 (ATH). – National park of Mikri Limni Prespa, above Oxia, 1480 m. Dry grassland over limestone. 1999-07-05, Schuler 99/830 (B). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs). – Scattered in grassland of Mt Triklario, 1500–1700 m. 2010-06-10, Fotiadis & Vrahnakis 7138 (Fo).

***Achillea pannonica* Scheele**

Near summit of Mt Devas, 1300–1370 m. Rocky limestone flats in openings of deciduous woodland. 2016-06-03, Strid 58338 (G, St).

***Anthemis altissima* L.**

WSW Lemos, 860 m, Krautfluren zwischen Feldern. 2004-05-11, Willing 127044 (B).

Somewhat out of range. Perhaps casual introduction, but confusion with *A. austriaca* or a similar species is also possible.

***Anthemis macedonica* Boiss. & Orph.**

By a mountain road E of the village of Ag. Germanos, 1400 m. Meadows over granite. 1981-06-28, Strid & al. 18266 (ATH, G, LD).

***Anthemis orientalis* (L.) Degen**

Quézel & Contandriopoulos (1968: 34) reported this species at “arénes granitiques et pelouses du Bela Voda”. The record needs confirmation. [The presence of *A. orientalis* was confirmed by Bergmeier in 2017].

***Anthemis triumfetti* (L.) DC.**

C. 3 km SSE of Kortsia Toumba, 1950–2150 m. Alpine grassland dominated by *Festuca* and patches of *Vaccinium myrtillus*. Granite. 1981-06-27, Strid & al. 18241 (ATH, G, LD).

***Arctium minus* (Hill) Bernh.**

Prespa, E of the village Lemos area, 870–940 m. 1972-07-08, Haristos 4006 (ATH). – Villages of Ag. Germanos, 2016-09-02, Vrondero, 2016-09-04, and Plati, 2016-09-07 (all Bergmeier, obs). – Shady places by the stream of Agios Germanos, 870 m. Fotiadis (obs).

***Artemisia absinthium* L.**

Reported by Pavlides (1985: 179) from Perivolaki; however, the specimen in the Pavlides herbarium is *A. vulgaris*. – *A. absinthium* was subsequently confirmed at Vrondero, village site, 2016-09-04, Bergmeier & Fotiadis (obs). One collection of *A. absinthium* (Snogerup 15849, LD) is from Pissoderion just outside PNP.

***Bellidiastrum michelii* Cass.**

A specimen in the Pavlides herbarium labeled *Aster bellidiastrum* (L.) Scop. (a synonym of *Bellidiastrum michelii*) is in poor condition and cannot be identi-

fied with certainty. There is no confirmation from the Prespa area, but a report by Parent (2005: 222) from Mt Vasilitsa ("Hétraie avec mégaphorbiaie au torrent, 1650 m") rendering some credibility to Pavlides' collection.

***Bidens cernuus* L.**

Sandy spit between Prespa lakes, eastern end, Megali Prespa side, near Ag. Germanos stream, 860 m. 2006-10-15, Strid 56187 (ATH, G, LD, St). – By the village of Mikrolimni, 860 m. Wetland by Lake Mikri Prespa. 2012-09-13, Strid 57630 (G, St). – Lake Mikri Prespa, W shore, SE of Pili, reedbed margin. 2016-09-03, Bergmeier 16/224 (Be).

This species is rare in Greece, but was collected at "Saloniki: Katharine, in humidis" already by Sintenis (1889-09-09, no 1882, LD; see Halácsy 1890: 39), and subsequently by Baldacci at the northern shore of Limni Pamvotida [Lake Ioanninon] (see Halácsy 1902: 39).

***Bidens frondosus* L.**

Lake Megali Prespa, near stream mouth, together with *B. tripartitus*. 2016-08-30, Bergmeier 16/149b (Be). – Mikri Prespa, lake shore at Mikrolimni. 2016-09-05, Bergmeier 16/265 (Be). – Lemos, ditch. 2016-09-06, Bergmeier 16/292 (Be).

A late-flowering neophyte of North American origin, only recently reported from Greece (Raus & Willing 2015: 451). In the Prespa area it is fully established, occurs in several sites, and is probably spreading.

***Carduus acicularis* Bertol.**

Reported by Pavlides (1985: 180) from Triklario, which may be just outside the PNP. The specimen in the Pavlides herbarium labeled *C. acicularis* belongs to *C. tmoleus*.

***Carduus candicans* Waldst. & Kit.**

Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15920 (ATH). – Also collected by Snogerup (15795, LD) at Pissoderi just outside the PNP border.

***Carduus kernerii* Simonk.**

Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2100 m. 1982-07-08, Lippert 18459 (C, M).

***Centaurea adami* Willd.**

By the village of Vrondero, 1100 m. Fallow fields around the military posts. 1972-06-22, Stamatiadou 15877 (ATH). – W of Mikri Prespa. By the village of Vronderon (Vrondero), 1040 m. Weed at edge of a field. 1985-07-30, Strid 24801 (C, G, GOET). – Near place called Pixos sheepfolds, c. 3 km WNW of Pili, 950 m. Semi-cultivated cereal fields with many weeds. 2014-07-12, Strid 58100 (St). – Near Vrondero, wheat field, 1090 m. 2016-07-20, Bergmeier 16/107 (Be, GOET).

Often cited as *C. solstitialis* subsp. *adamii* (Willd.) Nyman. In our opinion, supported by that of the *Centaurea* specialist G. Wagenitz, it is better regarded as a separate species, differing from *C. solstitialis* L. in important characters of phyllary appendages and achenes as well as general habit and ecology. In Greece it is restricted to a few localities in the north west, whereas *C. solstitialis* is widespread.

***Centaurea diffusa* Lam.**

Between Vrondero and the abandoned village of Agathoto, dry grassland along walking trail. 2016-07-20, Bergmeier 16/127 (fl. white) and 16/133 (fl. pale yellow) (Be, GOET), det. G. Wagenitz.

***Centaurea finazzeri* subsp. *kozanii* (Routsi & T. Georgiadis) Greuter**

Along main road between Lefkonas and Karies, 930 m. Roadside in deciduous scrub. 2016-06-08, Strid 58477 (G, St).

Previously known from a few localities in NC & NW Greece and recently reported also from the Albanian side of the Prespa National Park (Shuka & Tan 2013: 6).

***Centaurea graeca* Griseb.**

Lake Megali Prespa, near the military post of Koula, 850–900 m. 1971-07-28, Stamatiadou 13609 (ATH). – W shore of Mikra Prespa. NW of the island of Ag. Achilleos. Wet meadows, swamps and *Phragmites* thickets, 850 m. 1985-07-21, Strid 24820 (St). – Lakes Prespa. Sand along the river between the lakes. 1993-07-10, Bouharmont 23963 (Bouh). – S of Megali Prespa, 2 km ESE of Psarades, cliff and cliffbase at the road, 950 m. 1998-06-27, Snogerup 15662 (LD). – Along walking trail from Mikrolimni to ruins of Kranies settlement. Rocky limestone slopes, mostly with deciduous woodland,

860–950 m. 2010-06-06, Strid (obs). – Koula, by the isthmus between Megali and Mikri Prespa. Road-side and rocky limestone slopes, 860 m. 2014-07-12, Strid (photo). – Along walking trail from Psarades to Cape Roti. Rocky limestone slopes with mixed scrub including abundant *Buxus sempervirens*, 860–900 m. 2016-04-26, Strid (obs).

***Centaurea grisebachii* (Nyman) Heldr.**

In isthmo lacus Prespa, 860 m. 1972-06-21, Rechinger 44940 (C). – Sandy spit between Megali and Mikra Prespa, western end, on Megali Prespa side. Partly swampy, 853–860 m. 1998-08-07, Strid & Kit Tan 47606 (ATH, G, Kit, St). – 2 km SW of Psarades. Rocky limestone hills just above shore of Lake Megali Prespa, 860–900 m. 2011-06-26, Strid 57315 (LD). – N Lefkonas. Wiese an Wassergraben, 875 m. 2014-10-09, Willing 250267 (B).

Strid & Kit Tan 47606 has been identified as subsp. *confusa* (Halász) Dostál, Strid 57315 as *occidentalis* E. Gamal-Eldin & Wagenitz.

***Centaurea jacea* subsp. *angustifolia* (DC.) Greml.**

Meadow just S of the village of Oxia, 900 m. 2016-08-11, Strid 58610 (G, St). – Between Oxia and Mikrolimni, wet-dry hay meadow. 2016-09-05, Bergmeier 16/253 (Be, GOET; conf. G. Wagenitz: “vergens ad subsp. *weldeniana* (Rchb.) Greuter”). – Willing 250155 (B) from the same area (“S Karyes. Krautfluren, Straßenrand”) was reported as subsp. *weldeniana*.

***Centaurea prespana* Rech. f.**

This species was described in 1974, based on Stamatiadou 15927 (ATH, St, W) collected “between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m, stony calcareous ground”. There are several subsequent confirmations from the Prespa area, but unfortunately the name can not be retained since *C. prespana* is clearly conspecific with *C. soskae* Košanin, described in 1926 from Ohrid in F.Y.R. Makedonija. The species is probably restricted to limestone hills around the lakes of Prespa and Ohrid, extending also into Albania (Shuka, Malo & Kit Tan 2011: 160). It is related to *C. pelia* DC. which occurs from Attiki to c. 40°N in north central Greece.

***Centaurea rufidula* Bornm.**

Reported from PNP by Pavlides (1997a: 36), no details available. *C. rufidula* is a member of sect. *Acrolophus* described from “Macedonia centralis, Doiransee-Gebiet, südlich von Bogdanci” and list-

ed as endemic to Mk in Flora Europaea (4: 281, 1976) as well as Euro+Med PlantBase. The record from the Prespa area needs confirmation. No material was found in the Pavlides herbarium.

***Centaurea soskae* Košanin**

See under *C. prespana*.

***Centaurea spruneri* subsp. *guicciardii* (Boiss.) Hayek**

Reported by Pavlides (1985: 182) from the vicinity of Ag. Germanos. A specimen in the Pavlides herbarium is fragmentary, but represents a different species. Willing 250154 (B) from Karies, originally identified as *C. spruneri*, is in fact *C. graeca*.

***Cirsium brachycephalum* Jur.**

Reported by Pavlides (1985: 183) from the vicinity of Lemos. A specimen in the Pavlides herbarium belongs to *C. arvense* (L.) Scop. *C. brachycephalum* is a species of East Central Europe not confirmed south of Serbia.

***Cirsium candelabrum* Griseb.**

Koula, by the isthmus between Megali and Mikri Prespa, 860 m. Roadside and rocky limestone slopes. 2014-07-12, Strid (obs).

***Cirsium canum* (L.) All.**

This species was reported by Pavlides (1985: 183), based on Zaganiaris (1940). It is not otherwise known in Greece, and the record needs confirmation.

***Cirsium creticum* (Lam.) d’Urv.**

W. shore of Mikri Prespa, NW of the island of Ag. Achilleos, 850 m. Wet meadows, swamps and *Phragmites* thickets. 1985-07-21, Strid 24827 (St). – Vromolimni, flood plain. 2016-09-03, Bergmeier 16/205 (Be). – The species was reported by Pavlides (1985: 183) from Ag. Germanos, Pili, Vromolimni and Koula, and by Quézel & Contandriopoulos (1968: 35), always erroneously identified as *C. palustre* (see below).

***Cirsium palustre* (L.) Scop.**

Several records from the Prespa area (cf. Pavlides 1985: 183) are all likely to refer to the closely related *C. creticum* (Lam.) d’Urv. which is fairly common. Specimens in the Pavlides herbarium identified as *C. palustre* belong to *C. creticum*.

***Cirsium tymphaeum* Hausskn.**

Just W of Vigla pass, 1300 m. Wet place by the road. 2016-08-10, Strid 58594 (St). – The locality is near the border of PNP.

***Crepis micrantha*** Czerep.

Reported by Pavlides (1985: 183) from a locality between Koula and Pili. *C. micrantha* is an Aegean species unlikely to occur in the Prespa area.

***Crepis pulchra*** L.

Along main road between Lefkonas and Karies, 930 m. Roadside in deciduous scrub. 2016-06-08, Strid 58471 (St).

***Crepis reuteriana*** Boiss.

Between the villages of Pili and Vrondero, near the lake Mikri Prespa, 900 m, in *Quercus* woodland. Limestone. 1990-05-05, Phitos & Kamari 21404 (UPA).

See Anagnostopoulos & Kamari (1992: 225).

***Crepis tectorum*** L.

Reported by Pavlides (1985: 184) from the vicinity of Vrondero. *C. tectorum* is not otherwise known in Greece and the record needs confirmation.

***Crepis vesicaria*** L.

In grassland on the island of Agios Achilleios, 860 m. 2010-06-11, Fotiadis & Vrahnakis 7503 (Fo).

***Crepis viscidula*** Froel.

Mt Bella Voda, 1950–2100 m. Stony, treeless area with *Juniperus* and *Vaccinium myrtillus*. 1972-06-25, Stamatidou 16038 (ATH). – In austro-orientali verticum Bela Voda vocatorum. In megaphorbiets clivorum solo granitico. 1976-08-01, Greuter 14152 (C, Gr). – Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18431 (M, St).

Lippert 18431 has been identified as subsp. *geracioides* (Hausskn.) Kamari, the others as subsp. *viscidula*.

***Crupina crupinastrum*** (Moris) Vis.

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49117 (G, Kit).

*C. vulgaris* Cass. is more common in the Prespa area, but both species are widespread on the Greek mainland.

***Doronicum hungaricum*** Rchb. f.

Pavlides (1985: 184) cited a record from Pissoderi, just outside the PNP. It certainly refers to *D. austriacum* Jacq. which is common in this area.

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

2 km SW of the village of Lemos, 880 m. Damp scrub on roadside. 2016-06-08, Strid 58483 (St).

***Erigeron canadensis*** L.

SW Lemos, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71631 (B). – Sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, 860 m. Partly swampy. 1998-08-07, Strid & Kit Tan 47607 (G, LD). – Villages of Ag. Germanos, 2016-09-02, Vrondero, 2016-09-04, Mikrolimni, 2016-09-05, Lemos, 2016-09-06, and Plati, 2016-09-07, all Bergmeier (obs).

***Filago eriocephala*** Guss.

Listed by Fotiadis & al. (2012b) from Mt Trikario. No details are available, but the record is feasible.

***Filago pyramidata*** L.

NW Andartiko, 1280 m. Straßenrand, Buchenwald. 1998-08-01, Willing 71073 (B).

***Galinsoga parviflora*** Cav.

Between the Prespa lakes, 3 km SW of Laimos, 855 m. Among irrigated fields. 1998-06-27, Snogerup 15672 (LD). – W Andartiko, 1000 m. Ruderalfuren, Krautfluren, Kiefernwald. 1998-07-29, Willing 71310 (B). – NO Mikrolimni, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71441 (B). – Weed in the village of Agios Germanos, 1040 m. 2006-10-16, Strid (obs). – By the village of Oxia, 900 m. Bean field and wetland in agricultural area. 2012-09-13, Strid 57618 (St). – SW of Lefkonas, bean field. 2016-07-19, Bergmeier 16/84 (Be). – Villages of Vrondero, 2016-09-04, Mikrolimni, 2016-09-05, Psarades, 2016-09-06, Lemos, 2016-09-06, and Plati, 2016-09-07 (all Bergmeier, obs).

*Galinsoga parviflora* is an alien of S American origin, widespread and common in much of Europe as a weed of gardens, potato fields, etc., but only relatively recently observed in Greece where the first collections appear to be Haristos (1971-09-24, no 1648; ATH) from the vicinity of Naousa, and Strid & al. (1977-07-28, no 13396; ATH, St) = Stamatidou 20537 (ATH) from the village of Dimarion in nomos Xanthi. In the Prespa area it was not known to Pavlides (1985), but is now an abundant weed of bean fields near the lakes.

***Gnaphalium sylvaticum*** L.

Mt Varnous SE of Ag. Germanos, 1600 m. Granitic gravel on embankment of a forest road. 2012-09-13, Strid 57621 (ATH, G, St).

***Hedypnois rhagadioloides* (L.) F. W. Schmidt**

Reported by Pavlides (1985: 185) from Mt Devas, 1000–1100 m, as *H. cretica* (L.) Dum-Cours. In the Pavlides herbarium is a poor specimen under this name. It cannot be identified with certainty but does not appear to be *Hedypnois*.

***Helianthus laetiflorus* Pers.**

Village of Lemos, vegetation of tall herbs near stream. 2016-09-06, Bergmeier 16/290 (Be).

An alien of North American origin, naturalized in N Greece but late-flowering and probably under-represented in the records; in the Prespa area observed only in Lemos.

***Hieracium chalcidicum* Boiss. & Heldr.**

OSO Karye, 1050 m. Sandige Hänge, Eichenbuschwald. 1998-07-30, Willing 71390 (B); det. G. Gottschlich. – 1,9 km E Straßenabzweig nach Mikrolimni am Talrand des Mikro Prespa, Straßenböschung, 860 m. 2009-08-05, Gregor & Meierott 5784b (FR); det. G. Gottschlich.

***Hieracium heldreichii* Boiss.**

1,9 km E Straßenabzweig nach Mikrolimni am Talrand des Mikro Prespa, Straßenböschung, 860 m. 2009-08-05, Gregor & Meierott 5784a (FR); det. G. Gottschlich.

***Hieracium jankae* subsp. *macranthelophorum***

Rech. f. & Zahn

Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18492 (M, St); det. G. Gottschlich.

***Hieracium neodivergens* Gottschl.**

Between Karyes and Andartiko, steep and rocky declivity near the road, 1110 m. 2016-07-22, Bergmeier 16/138 (Be); det. G. Gottschlich.

***Hieracium pyrgosense* Rech. f. & Zahn**

Auf der Bela Voda, 2000 m; Blockwerk, Felsen, Silikat. 1978-07-05, Krendl s.n. (Gott, W); det. G. Gottschlich.

***Hieracium retyezatense* Degen & Zahn**

Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18416 (M, St); det. G. Gottschlich.

***Hypochaeris cretensis* (L.) Bory & Chaub.**

By the chapel of Agios Georgios halfway between Koula and Psarades, 1050 m. Rocky limestone slopes with *Juniperus* woodland. 2016-06-03, Strid 58329 (St). – Observed by Fotiadis & Vrahakis in the same area and also near Vrondero.

***Hypochaeris glabra* L.**

In grassland near the village of Plati, 890 m. Fotiadis (obs).

***Inula salicina* subsp. *aspera* (Poir.) Hayek**

Along forest road from the chapel of Ag. Georgios to Mt Devas, 1100–1200 m. Rocky limestone slopes with mixed woodland. 2012-09-12, Strid 57609 (G, St). – Same area, 1300 m. 2016-08-13, Strid 58655 (St).

***Jacobaea erratica* (Bertol.) Fourr.**

Reported by Pavlides (1985: 188), sub nom. *Senecio aquaticus* subsp. *barbareifolius* (Wimmer & Grab.) Walters. A specimen in the Pavlides herbarium seems to represent *Senecio rupestris*.

***Jacobaea vulgaris* Gaertn.**

Reported by Pavlides (1985: 188), sub nom. *Senecio jacobaea* L. A specimen in the Pavlides herbarium represents *Senecio rupestris*.

***Klasea radiata* subsp. *cetinjensis* (Rohlena) Greuter & Wagenitz**

Mt. Devas, near the summit along forest road from the chapel of Agios Georgios, 1200–1300 m. Rocky limestone slopes with open woodland of *Quercus trojana* and *Juniperus*. 2014-07-12, Strid 58098 (ATH, G, St). – First observed in this locality 2006-10-14 (Strid 56178, seed collection).

The only locality in Greece; see Strid (2013: 241).

***Lactuca aurea* (Vis. & Pančić) Stebbins**

Mt Varnous: Near the windmills above the pass of Pissoderi, at upper edge of *Fagus* forest, 1800 m. Meadow on rocky granitic slope. 2016-08-10, Strid 58573 (G, St).

A rare Balkan endemic. In Greece there are few and scattered localities from the northwestern borders southwards to Mt Timfristos.

***Lactuca perennis* L.**

Along road between Koula and the chapel of Agios Georgios, above the sandy spit between Mikri and Megeli Prespa, 900–950 m. Rocky limestone slopes

with open woodland. 2010-06-04, Strid 57198 (ATH, G, St). – Berg Devas südl. Psarades, 1120 m. Offener *Quercus pubescens* - *Ostrya carpinifolia*-Wald über Kalkgestein. 2011-06-25, Raus 32513 (B).

Otherwise very rare in Greece, reported only from Mts Vermio and Vourinos.

**Lactuca serriola** L.

NO Mikrolimni, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71427 (B). – SW Lemos, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71637 (B). – Villages of Ag. Germanos, 2016-09-02, Vrondero, 2016-09-04, Mikrolimni, 2016-09-05, Psarades, 2016-09-06, Lemos, 2016-09-06, and Plati, 2016-09-07 (all Bergmeier, obs). – Also observed by Fotiadis & Vrahnakis in several villages in the area.

**Lactuca tuberosa** Jacq.

Along walking trail from Mikrolimni to ruins of Kranies settlement. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

**Leucanthemum vulgare** (Vaill.) Lam.

Lake Prespa area, alluvial plain between Lemos and Koula, 860 m. 1971-07-29, Stamatiadou 13620 (ATH).

**Petasites hybridus** (L.) G. Gaertn., B. Mey. & Scherb.

Agios Germanos, gregarious by the stream in upper part of village. 2010-06-06, Strid (obs). – Same site. 2016-07-22, Bergmeier (obs).

**Picris hieracioides** (Guss.) Arcang.

OSO Karye, 1050 m. Sandige Hänge, Eichenbuschwald. 1998-07-30, Willing 71393 (B). – NW Andartiko, 1280 m. Straßenrand, Buchenwald. 1998-08-01, Willing 72035 (B). – Pass ESE of Karies, 1100 m. Schistose road embankment. 2007-07-15, Strid 56309 (St). – By the village of Mikrolimni, 855 m. Wetland by Lake Mikri Prespa. 2012-09-13, Strid 57629 (St). – Ag. Germanos, village. 2016-09-02, Bergmeier (obs).

Strid 57629 has been identified as subsp. *spinulosa* (Guss.) Arcang.

**Pilosella caespitosa** (Dumort.) P. D. Sell & C. West

Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18410 (C, M).

**Pilosella rhodopea** (Griseb.) Szelag

This species was reported from Mt Varnous, without precise locality, already by Quézel (1969: 103, sub nom. *Hieracium alpicola* subsp. *rhodopeum*), but this record was dismissed as probably incorrect and the taxon was not included in VPG (Dimopoulos & al. 2013). There is no confirmation for Mt Varnous, but several collections from the Voras range and Mt Gramos, confirmed as *Pilosella rhodopea* by G. Gottschlich. The *Hieracium alpicola* (*Pilosella alpicola*) group was revised by Szelag (2008), who reported *P. rhodopea* from “Balkan Peninsula (Bulgaria, Greece, Macedonia)”.

**Scolymus hispanicus** L.

Near the village of Lefkona, 900 m. Dry grassland. 2016-08-11, Strid (photo). – Near Pili, roadside. 2016-09-03, Bergmeier (obs).

**Scorzonera cana** (C. A. Mey.) Griseb.

Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15912 (ATH). – Grassland near Pili and near Mikrolimni, 860 m. Fotiadis (obs).

**Scorzonera doriae** Degen & Bald.

A record from Mt Devas cited by Strid & al. (2012) is probably incorrect.

**Scorzonera mollis** M. Bieb.

Mt Devas, in *Juniperus excelsa* forest, 1100 m. 2010-05-20, Fotiadis & Vrahnakis 7522 (Fo). – Ditto, summit area, 1350 m. Dry meadow on rocky limestone flat. 2012-05-21, Strid 57388 (ATH, G, St). – Ditto, E of the summit, 1200 m. Dry meadow in opening of mixed woodland on rocky limestone slope. 2012-05-21, Strid 57382 (ATH, G, St).

**Senecio fluiatilis** Wallr.

Reported by Pavlides (1985: 188) from the stream just above Ag. Germanos. According to Euro+Med PlantBase *S. fluiatilis* Wallr. is a synonym of *S. sarracenicus* L., but a specimen in the Pavlides herbarium appears to represent *S. ovatus*, another taxon in this group (see below). A report from “Kalo Nero” by Quézel & Contandriopoulos cited by Pavlides probably refers to the same.

**Senecio lividus** L.

Specimens in the Pavlides herbarium labeled *S. lividus* probably represent *S. vernalis*.

***Senecio ovatus*** (G. Gaertn., B. Mey. & Scherb.) Willd.  
See under *S. fluviatilis*. Confirmed 2016-08-10 on Mt Varnous, near source of Kaloneri stream, 1750–1800 m, damp to dry meadows over granite. Strid 58583 (St). – Mt. Varnous, ESE of Ag. Germanos, 1900 m, *Juniperus nana* shrubland, granite. 2016-08-31, Bergmeier 16/178 (Be).

***Senecio scopolii*** Hoppe & Hornsch.

Mt Triklario, 3 km S of the village of Oxia, 1450 m. Rocky limestone slope in opening of *Fagus* forest. 2009-05-18, Strid (photo).

***Senecio vernalis*** Waldst. & Kit.

Shores of lake Megali Prespa by the village of Psarades. 855 m. 1975-05-10, Stamatiadou 18553 (ATH). – C. 3 km WSW of the village of Lemos, near shore of Lake Megali Prespa, 860 m. Dry, sandy area. 1995-05-07, Strid 38920 (C). – S shore of lake Megali Prespa, 3 km W of Plati, 855 m. Sandfield. 1998-07-01, Snogerup 15892 (LD). – Sandy spit between Mikri and Megali Prespa, near western end, 855 m. Dry places. 1999-05-31, Strid & al. 49164 (G). – Mikrolimni, Krautfluren am See, 860 m. 2004-05-11, Willing 126951 (B). – Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsch. 2004-05-11, Willing 126964 (B). – Aj. Jermanos, 1040 m. Krautfluren im Ort, steile felsige Hänge, Laubgebüsch. 2004-05-11, Willing 127011 (B). – SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127073 (B).

***Sonchus arvensis*** L.

W shore of Mikri Prespa, NW of the island of Ag. Achilleos, 855 m. Wet meadows, swamps and *Phragmites* thickets. 1985-07-21, Strid 24821 (G, St). – SE of Pili, W shore of Mikri Prespa. 2016-09-03, Bergmeier (obs). – Village of Lemos. 2016-09-06, Bergmeier (obs).

***Sympyotrichum novi-belgii*** (L.) G. L. Nesom (s.l.)

Village of Lemos, vegetation of tall herbs. 2016-09-06, Bergmeier 16/288 (Be).

Locally naturalized garden escape; in the Prespa area observed only in Lemos. Species delimitation in this group of closely related North American taxa is unresolved.

***Tanacetum parthenium*** (L.) Sch. Bip.

*Quercus* forests in Mt Devas, 1200 m. Fotiadis & Vrahnakis (obs).

***Taraxacum* sp.**

Ridge between summit 2177 and Kortsia Toumba. Alpine grassland and rocky outcrops. Granite. 1981-06-27, Strid & al. 18250 (C).

This specimen has been annotated by Richards as “*Taraxacum magniterminale* A. J. Richards”, a species otherwise recorded from Mt Olimbos and Mt Dirfis (Evvia). Apparently the name was never published.

***Tephroseris integrifolia*** (L.) Holub

Pavlides reported *Senecio integrifolius* subsp. *integrifolius*. There are several records from Mt Varnous which are all likely to represent *T. integrifolia* subsp. *aucherii* (DC.) B. Nord.

*T. integrifolia* subsp. *aucherii* has recently been reported from the Albanian side of the Prespa National Park (Shuka & Tan 2013: 10).

***Tragopogon crocifolius*** L.

Mikrolimni, 855 m. Ruderalfuren, Seeufer. 1998-07-30, Willing 71506 (B).

***Xanthium orientale*** L. subsp. *italicum* (Moretti)

Greuter  
Mikrolimni. 2016-09-05, Bergmeier 16/266 (Be); also observed in beanfields and villages of Ag. Germanos, 2016-09-02, Psarades, 2016-09-06, and Lemos, 2016-09-06.

Records of *X. strumarium* may belong here or should be confirmed.

***Xeranthemum inapertum*** (L.) Mill.

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49112 (G, Kit, St). – Near the village of Pili, 900 m. Rocky calcareous slopes in deciduous oak woodland. 2010-06-04, Strid 57126 (G, St).

**BALSAMINACEAE**

***Impatiens balfourii*** Hook. f.

Between the villages of Agios Germanos and Lemos, 950–1000 m. Shady places by a small stream. 2010-10-14, Strid (obs). – Ag. Germanos. 2016-09-02, Bergmeier (obs).

An introduced, late-flowering species now spreading rapidly in damp habitats in villages of northern Greece.

## BORAGINACEAE

### *Alkanna corcyrensis* Hayek

This species was reported by Pavlides (1985: 161) but a specimen in the Pavlides herbarium belongs to *A. pindicola* Hausskn.

### *Alkanna pindicola* Hausskn.

2–5 km from Pili towards Vrondero, by the hill of Venika Glavia, 950–1050 m. Forest with *Quercus*, *Fraxinus*, *Acer* and *Buxus*. Stony calcareous ground. 1972-06-22, Stamatiadou 15834 (ATH, C). – Near isthmus of Prespa, on road to the village of Psarades, 900–950 m. Rocky limestone slopes with scrub of *Juniperus oxycedrus* and *J. excelsa*. 1995-05-07, Strid 38927 (C). – Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49152 (G). – Mt Devas, summit area and just W of the summit, 1250–1350 m. Rocky limestone slopes and flats in openings of deciduous oak woodland. 2009-05-17, Strid 56803 (St). – Openings in *Quercus trojana* woodland W-SW of the summit of Mt Devas. 2010-05-20, Fotiadis & Vrahnakis 7228 (Fo). – Kapelle Agios Georgios am Berg Devas südl. Psarades. Offener *Quercus trojana* - *Juniperus excelsa*-Wald über Kalkgestein. 2011-06-25, Raus 32508 (B).

### *Alkanna tinctoria* Tausch

Lefkonas, 930 m. Krautfluren im Ort. 2014-10-09, Willing 250239 (B). – Grassland near the village of Plati, 890 m. 2010-08-07, Fotiadis & Vrahnakis 7930 (Fo).

### *Anchusa arvensis* L.

Records of this species are dubious. At least one specimen in the Pavlides herbarium labeled *Anchusa arvensis* belongs to *Anchusella cretica*.

### *Anchusa azurea* Mill.

W of Mikri Prespa, by the village of Vronderon (Vrondero), 1040 m. Deciduous oak scrub, dry meadows in the vicinity of the filakion just SW of the village. 1985-07-20, Strid 24804 (C).

***Anchusella cretica*** (Mill.) Bigazzi, E. Nardi & Selvi  
Pavlides (1985: 162) reported *Anchusa variegata* (L.) Lehm. “between Ag. Georgios and Psarades, 1050 m”, but a specimen in the Pavlides herbarium belongs to

*Anchusella cretica*. Additional records for the latter are: Shores of lake Megali Prespa by the village of Psarades, 960 m. 1975-05-10, Stamatiadou 18567 (ATH). – SO Psarades, 860 m. Felswand, Krautfluren am See. 2004-05-11, Willing 127119 (B). – Mt Devas, E to ENE of the summit, 1200 m. Open deciduous oak woodland over rocky limestone slopes. 2011-05-21, Strid (obs and photo).

*A. variegata* is restricted to S Greece with its northernmost locality on Kerkira. In spite of its name, *A. cretica* does not occur in Kriti.

### *Buglossoides incrassata* (Guss.) I. M. Johnst.

C. 2 km SW of Psarades along forest road to Pyli, 980–1040 m. Rocky limestone slopes with mixed woodland dominated by deciduous oaks. 2016-06-04, Strid 58271 (St).

These specimens have pale blue corolla and match *B. incrassata* subsp. *splitgerberi* (Guss.) E. Zippel & Selvi, a taxon of uncertain status more or less intermediate between *B. arvensis* and *B. incrassata*. It has been reported from scattered localities in W Greece and recently also from the island of Rodos (Kleinsteuber & al. 2016: 244).

### *Cynoglossum columnae* Ten.

Between the villages of Pili and Vrondero, 1000–1050 m. *Quercus* forest. 1975-05-08, Stamatiadou 18436 (ATH). – Shores of lake Megali Prespa by the village of Psarades, 860 m. 1975-05-10, Stamatiadou 18568 (ATH). – Sandy spit between Mikri and Megali Prespa, near western end, 855 m. Dry places. 1999-05-31, Strid & al. 49155 (ATH, G, Kit). – SO Psarades, 860 m. Felswand, Krautfluren am See. 2004-05-11, Willing 127106 (B). – Mt Devas, summit area c. 2 km N of Pili, 1200–1350 m. Rocky limestone slopes and flats in opening of mixed woodland. 2010-06-04, Strid (obs and photo). – In the village of Agios Germanos, 1050 m. Shady places by the stream. 2011-05-22, Strid (obs).

### *Cynoglossum montanum* L.

Prespa, area of village Lemos, 940 m. 1972-07-07, Haristos 3957 (ATH). – Ajios Germanos village area, 1040 m. 1972-07-09, Haristos 4010 (ATH).

### *Cynoglottis barrelieri* (All.) Vural & Kit Tan

Several records from the area including: Lake Prespa, near and SW of the frontier post of Koula, 860–900 m.

Stony calcareous ground. 1972-06-22, Stamatiadou 15816 (ATH, C). – By the Greek-Albanian frontier, SW of the village of Vrondero, between the 13th and 15th pyramid, 1350–1450 m. Forest of *Quercus*, *Buxus* and *Ostrya*. 1975-05-09, Stamatiadou 18462 (ATH). – Mt Devas, summit area c. 2 km N of Pili, 1200–1350 m. Rocky limestone slopes and flats in opening of mixed woodland. 2010-06-04, Strid (obs). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs). – In openings of mixed woodlands to the area of Roti (W of Psarades) and Agios Georgios. 2015-04-20, Fotiadis & Vrahaklis 9612 (Fo).

All records are likely to represent subsp. *serpentincola* (Rech. f.) Vural & Kit Tan.

#### *Heliotropium halacsyi* Riedl

Lake Prespa area, alluvial plain between Lemos and Koula, 860 m. 1971-07-29, Stamatiadou 13617 (ATH).

This species is locally common in western Greece and currently listed as a Greek endemic. It is likely to extend into southern Albania, but may have been overlooked due to its late-flowering habit (mainly September-October).

#### *Lithospermum officinale* L.

Sandy spit between Mikri and Megali Prespa, near western end. Dry places. 1999-05-31, Strid & al. 49158 (C, Kit).

*Myosotis alpestris* subsp. *suaveolens* (Willd.) Strid  
Mt Bella Voda, S of the summit of Toumba, 1900–1950 m. Stony ground with meadows between prominent rocks. 1972-06-25, Stamatiadou 16109 (ATH, C). – Area called Moutsara c. 4 km SE of Agios Germanos, 1900–2000 m. Alpine meadow over granite. 2010-06-07, Strid 57168 (G, St).

#### *Myosotis discolor* Pers.

By NE shore of Lake Mikri Prespa, 860 m. Sandy, somewhat elevated spot in wet meadow. 2009-05-18, Strid 56806 (G, St).

#### *Myosotis incrassata* Guss.

1 km WSW of the village of Psarades, 900 m. Mixed deciduous/evergreen scrub 2–3 m tall, with much *Buxus sempervirens*. Rocky limestone hills. 1995-05-08, Strid 38953 (C). – SO Psarades, 860 m. Felswand,

Krautfluren am See. 2004-05-11, Willing 127108 (B). – In grassland on a small hill (called Goritsa) west of Lefkonas, 870 m. Fotiadis & Kazoglou (obs).

#### *Myosotis scorpioides* L.

Reports of this species by Pavlides (1985: 164) as well as elsewhere in Greece refer to *M. nemorosa* Besser. The latter is not uncommon along streams and in seepage areas on Mt Varnous at 1300–2000 m.

#### *Myosotis sicula* Guss.

Lake Prespa, plain of Koula, NE of the frontier post, 855 m. Marshy places. 1972-06-21, Stamatiadou 15746 (ATH). – Sandy spit between Megali and Mikri Prespa, western end, on Megali Prespa side, 855 m, swampy area. 1998-08-07, Strid & Kit Tan 47600 (G, St). – Marshy places in Mikri Prespa near Karies, 855 m. 2010-07-20, Kazoglou (obs).

#### *Myosotis sparsiflora* Pohl

Village of Agios Germanos, 1000 m. Damp, shady place. 2012-05-20, Strid 57374 (G, St).

#### *Myosotis stricta* Roem. & Schult.

SW Andartiko, 1050 m. Eichenwald, Ackerrand. 2004-05-11, Willing 126825 (B). – SO Karie, 960 m. Krautfluren mit Eichengebüsch, Ackerrand. 2004-05-11, Willing 126884 (B). – SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127058 (B).

#### *Neostema apulum* (L.) I. M. Johnst.

Grassland near the village of Lefkonas, 1000 m. Fotiadis & Vrahaklis (obs).

#### *Onosma echioiodes* L.

Records of this species from the vicinity of Agios Germanos and Psarades (Pavlides 1985: 164) as well as elsewhere in Greece probably all refer to *O. heterophyllum* Griseb.

#### *Onosma visianii* Clementi

Scattered in grassland of Mt Triklorio 1310–1760 m. 2010-06-12, Fotiadis & Vrahaklis 7155 (Fo). – Place called Agioneri 4 km SSW of the village of Oxia, 1400 m. Patches of meadow over limestone in opening of *Fagus* forest. 2016-06-07, Strid 58442 (St).

#### *Symphytum ottomanum* Friv.

Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes,

mostly with deciduous woodland. 2010-06-06, Strid (obs). – Inside *Quercus* forest 1 km SSW of Oxia, 990 m. 2010-06-10, Fotiadis & Vrahnakis (obs).

## BRASSICACEAE

### *Alyssum chalcidicum* Janka

Rocky limestone slopes in Agathoto area, 870 m. 2010-08-05, Fotiadis & Vrahnakis 7412 (Fo).

### *Alyssum doerfleri* Degen

Between the lake of Mikri Prespa and the Albanian frontier, valley SE of the village of Vrondero, near place named Cave Zahariadi, 900–950 m. Rocky calcareous ground. 1975-05-09, Stamatiadou 18496 (ATH, St). – Between the village of Vronderou and western shore of Lake Mikri Prespa, near the "hospital cave", 950 m. Rocky limestone slopes with mixed deciduous woodland. 2009-05-20, Strid 56830 (St).

### *Arabis allioni* DC.

This species was reported by Pavlides (1985: 195) from an altitude of 1700–1900 m on Mt Varnous. The record probably refers to *A. sudetica*.

### *Arabis auriculata* Lam.

2 km SW of the village of Psarades, 860–900 m. Limestone rocks and rocky slopes near shore of lake Megali Prespa. 1995-05-08, Strid 38964 (C, G). – SO Psarades, 860 m. Felswand, Krautfluren am See. 2004-05-11, Willing 127103 (B).

### *Arabis collina* Ten.

1.5 km SW of the village of Oxia, 1150 m. Damp deciduous woodland on rocky limestone slopes. 2016-04-27, Strid 58289 (St).

### *Arabis sudetica* Tausch

Mt Varnous, area called Moutsara c. 4 km SE of Agios Germanos, 1900–2000 m. Alpine meadow over granite. 2010-06-07, Strid 57166 (St).

### *Aurinia sinuata* (L.) Griseb.

This species was reported by Pavlides (1985: 194), sub nom. *Alyssoides sinuata* (L.) Medik., from Perivolaki and Sfika as well as Kristallopigi (the latter cited from Zaganiaris 1940). Specimens in the Pavlides herbarium appear to represent *Aurinia saxatilis* subsp. *orientalis* (Ard.) T. R. Dudley which is common in the area, e.g., occurring in large quantity around Psarades.

### *Barbarea bracteosa* Guss.

Flora Hellenica Database records are from Pissoderi just outside PNP.

### *Barbarea sicula* C. Presl

Flora Hellenica Database records are from Pissoderi just outside PNP.

### *Berteroa mutabilis* (Vent.) DC.

In isthmo lacus Prespa. 1972-06-21, Rechinger 44942 (G).

### *Brassica nigra* (L.) W. D. J. Koch

Prespa, E of the village Lemos area. 1972-07-08, Haristos 4005 (ATH).

### *Brassica rapa* L.

NW Platy. Krautfluren an Maisfeld, Wassergraben, 880 m. 2014-10-09, Willing 250283 (B).

### *Calepina irregularis* (Asso) Thell.

2.4 km NO Oxia. Sumpfwiese, 890 m. 1988-05-09, Willing 3432 (B). – SO Karie, 1030 m. Eichenwald, Krautfluren. 2004-05-11, Willing 126834 (B). – Grassland near the village of Lefkonas, 1000 m. Fotiadis & Vrahnakis (obs).

### *Camelina microcarpa* Andrzej ex DC.

Sandy spit between Mikri and Megali Prespa, near western end, 855 m. Dry places. 1999-05-31, Strid & al. 49154 (ATH, G, Kit, LD). – N Prasino, 950 m. Ackerrand, Krautfluren. 2004-05-07, Willing 125664 (B). – Mikrolimni, 860 m. Krautfluren am See. 2004-05-11, Willing 126939 (B). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127048 (B).

### *Capsella grandiflora* (Fauché & Chaub.) Boiss.

A database record is from ruins of Sfika village just outside PNP. The species is likely to occur also inside the borders.

### *Cardamine amara* subsp. *barbaraeoides* (Halácsy)

Maire & Petitm.

Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18409 (C, M). – Mt Varnous, alpine meadows at Moutsara, 1950 m. 2010-07-18, Fotiadis & Vrahnakis 7612 (Fo).

***Cardamine graeca* L.**

Quercus forests at Vrondero, 990 m. Fotiadis (obs).

***Cardamine hirsuta* L.**

N Andartiko, 1100 m. Krautfluren, Laubwald, Ackerrand. 2004-05-07, Willing 125680 (B). – SW Andartiko, 1050 m. Eichenwald, Ackerrand. 2004-05-11, Willing 126811 (B). – Aj. Jermanos, 1040 m. Krautfluren im Ort, steile felsige Hänge, Laubgebüsch. 2004-05-11, Willing 127000 (B). – Woodland and shrubland at Vrondero, 990 m. 2014-06-08, Fotiadis (obs). – *Salix alba* communities near Lemos, 880 m. 2014-06-09, Fotiadis (obs).

***Cardamine pratensis* L.**

Reported by Pavlides (1985: 197). However, a specimen in the Pavlides herbarium represents *C. hirsuta*.

***Conringia austriaca* (Jacq.) Sweet**

Reported by Pavlides (1985: 196) and tentatively accepted in Fl. Hellen. 2: 276 (2003). Specimens in the Pavlides herbarium appear to belong to *C. orientalis*.

***Descurainia sophia* (L.) Prantl**

Mikrolimni, 860 m. Krautfluren am See. 2004-05-11. Willing 126941 (B). – Mikrolimni, village. 2016-09-05. Bergmeier 16/257 (Be).

***Diplotaxis muralis* (L.) DC.**

Mikrolimni, village roadside. 2016-09-05. Bergmeier 16/262 (Be). – Plati, village. 2016-09-07, Bergmeier (obs).

***Erucastrum gallicum* (Willd.) O. E. Schulz**

Village of Vrondero, near the military post, 1100 m. Semi-cultivated fields and openings in woodland. 1985-07-20, Stamatiadou 22894 (ATH, C).

First record in Greece. Subsequently collected by Willing at a few localities in nomos Kastorias.

***Erysimum crassistylum* C. Presl**

Several records including: In isthmo lacus Prespa, 860 m. 1972-06-21, Rechinger 44931 (G, W). – Lake Prespa, plain of Koula, NE of the frontier post, 860 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15752 (ATH, G). – Berg Devas südlich von Psarades, 1200 m. *Juniperus-Quercus*-Buschwälder mit felsigen Lichtungen über Kalkgestein. 1986-08-23, Raus 11405 (B). – 3 km SSW of Andartiko, 950 m. Dry grassy meadows and open deciduous scrub over gran-

ite. 1998-06-15, Strid & al. 46629 (G, W). – Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49146 (G, W). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127043 (B). – Openings in mixed woodland in Daseri, 890 m. 2010-06-10, Fotiadis & Vrahakis 7163 (Fo). – Shrubland near Kranies, 860 m, alluvial plain S of Mikrolimni, 855 m. Fotiadis & Vrahakis (obs).

***Erysimum microstylum* Hausskn.**

In latere meridionali montis Toumba, 1850–2000 m. In pratis alpinis, solo granitico. 1976-08-03, Greuter 14262 (W). – Southern side of summit 2177, c. 3 km SSE of Kortsia Toumba, 1950–2150 m. Alpine grassland dominated by *Festuca* and patches of *Vaccinium myrtillus*. Granite. 1981-06-27, Strid & al. 18238 (C, G). – Aufstieg zur Kawiniza (östl. Vorgipfel des Kalo Nero = Bella Voda) vom Kataphygion bei Pissoderi, 1950–2130 m. Quellstelle. 1982-07-08, Lippert 37411 (M).

***Erysimum pusillum* Bory & Chaub.**

Records by Pavlides (1985: 198) are likely to refer to *E. microstylum*.

***Isatis tinctoria* L.**

By the main road not far from the village of Lefkonas, 910 m. 2016-04-27, Strid (photo).

***Neslia apiculata* Fisch., C. A. Mey. & Avé-Lall.**

N Prasino, 950 m. Ackerrand, Krautfluren. 2004-05-07, Willing 125662 (B). – Between Psarades and Pili, 950 m. Weed in small cereal fields in opening of deciduous oak woodland. 2009-05-20, Strid (obs).

***Nocea ochroleuca* (Boiss. & Heldr.) F. K. Mey.**

Records of *Thlaspi goesingense* Halászy (Pavlides 1985: 199) refer to *Nocea ochroleuca*. Taxonomy of this species complex is unsettled, and the taxon occurring on Mt Varnous is sometimes known as *Nocea lutescens* F. K. Mey.

***Rorippa prolifera* (Heuff.) Neirl.**

SW of Lefkonas, E shore of Lake Mikri Prespa, wet grassland. 2016-07-19, Bergmeier 16/79 (Be). – 1 km SSE of Pili, wetland by Lake Mikri Prespa, 860 m. 2016-08-09, Strid 58558 (G, St). – By the ruins of Sfika village, 1200 m. Semi-cultivated fields and wet spots. 2016-08-11, Strid 58627 (G, St).

The records confirm reports by Pavlides (1985: 199) which had subsequently been doubted and disregarded by Jonsell in Flora Hellenica (2: 175, 2003).

***Rorippa pyrenaica* (All.) Rchb.**

Just above the village of Oxia, 900 m. Pastures and edge of deciduous oak woodland. 2016-04-27, Strid 58284 (St.).

***Sisymbrium irio* L.**

Pavlides (1985: 199) reported this species from Lemos-Ag. Germanos, but the specimen in the Pavlides herbarium represents *Sisymbrium orientale* L.

***Sisymbrium loeselii* L.**

SO Karie, Krautfluren mit Eichengebüsch, Ackerrand, 960 m. 2004-05-11, Willing 126885 (B). – Mikrolimni, Krautfluren am See, 860 m. 2004-05-11, Willing 126938 (B). – 1 km S of the village of Oxia. Mixed deciduous woodland, 950–1000 m. 2016-04-27, Strid 58287 (St.).

***Teesdalia nudicaulis* (L.) R. Br.**

A specimen in the Pavlides herbarium labeled *Teesdalia nudicaulis* is *Lepidium* sp. There are no confirmed records of the former from Greece.

***Thlaspi goesingense* Halász**

See under *Noccea ochroleuca*.

***Thlaspi praecox* Wulfen**

Pavlides reported this species in an unpublished addition to his catalogue of 1985. The record is likely to refer to *Noccea ochroleuca* (Boiss. & Heldr.) F. K. Mey., which is common on Mt Varnous.

## CALLITRICHACEAE

***Callitrichche palustris* L.**

Mt. Varnous, ESE of Ag. Germanos, place called Moutsara, spring, 1960 m. 2016-08-31, Bergmeier 16/191 (Be, BM), conf. R. Lansdown.

*C. palustris* s. str. is a widespread species but apparently rare or overlooked in Greece where it was previously recorded only from the Timfi area in northern Pindos (Lansdown, in litt.).

## CAMPANULACEAE

***Asyneuma pichleri* (Vis.) D. Lakušić & F. Conti**

Mt Bella Voda, 1950–2100 m. Stony, treeless area with *Juniperus* and *Vaccinium myrtillus*. 1972-06-25, Stamatiadou 16039 (ATH, St). – 6 km S-SSW of the

summit of Kortska Toumba (peak 2334), 1800–2000 m. Dry alpine grassland and rocky outcrops. Granite. 1981-06-27, Strid & al. 18203 (B, C, G).

This species was previously known as *Campanula trichocalycina* auct., non Ten. (see Lakušić & Conti 2004).

***Campanula bononiensis* L.**

Village of Vrondero, near the military post, 1100 m. Semi-cultivated fields and openings in woodland. 1985-07-20, Stamatiadou 22900 (ATH).

***Campanula trachelium* subsp. *athoa* (Boiss. & Heldr.) Hayek**

W Andartiko, 1000 m. Ruderalfuren, Krautfluren, Kiefernwald. 1998-07-29, Willing 71349 (B). – *Fagus* and *Quercus* forests above Lefkonas, 1250–1500 m, and in Mt Triklario, 940–1210 m. Fotiadis & Vrahakakis (obs).

***Campanula wanneri* Rochel**

In an unpublished addition to his catalogue of 1985, Pavlides reported this species from “Garlini-Triklariou”. However, a specimen in the Pavlides herbarium has been identified as *Campanula persicifolia*. In Greece *C. wanneri* is known only from Mt Koula in nomos Xanthis near the Bulgarian border.

***Legousia hybrida* (L.) Delarbre**

SO Karie, Eichenwald, Krautfluren, 1030 m. 2004-05-11, Willing 126847 (B).

***Legousia pentagonia* (L.) Druce**

Recorded by Pavlides (1985: 166) from Isthmos and Agioneri-Dikorfo. However, a specimen in the Pavlides herbarium represents *L. speculum-veneris* (L.) Chaix.

## CAPRIFOLIACEAE

***Lonicera caprifolium* L.**

Few individuals in *Quercus* forest edge at Agineri, 1300 m. 1985-06-30, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication).

***Lonicera implexa* Aiton**

Records by Pavlides (1985: 167) are out of range and probably incorrect.

***Viburnum lantana* L.**

Place called Ag. Pavlos near the Greek-Albanian border, 900 m. 1985-06-24, Pavlides (specimen seen in

the Pavlides herbarium, apparently collected too late to be included in his 1985 publication). – 2 km SW of Psarades along forest road to Pyli, 980–1040 m. Rocky limestone slopes with mixed woodland dominated by deciduous oaks. 2016-06-04, Strid 58347 (G, St).

#### ***Viburnum opulus* L.**

Around Lake Mikri Prespa, *Quercus* wood near Mikrolimni, 860 m, on alluvial deposits. Schuler 1425 (see Schuler 2007: 231). – Between Karyes and Oxia, *Alnus* riparian forest. 2016-09-05, Bergmeier 16/250 (Be).

A widespread C European species which in Greece is known only from a few localities near the northern borders.

#### **CARYOPHYLLACEAE**

##### ***Arenaria filicaulis* subsp. *graeaca* (Boiss.) McNeill**

This species was reported by Pavlides (1985: 167) from Dafnomilis, but a specimen in the Pavlides herbarium represents a different species (a small annual).

##### ***Cerastium arvense* L.**

This species was reported by Pavlides (1985: 167) from Lemos and Ag. Germanos, but a specimen in the Pavlides herbarium belongs to *C. holosteoides*.

##### ***Cerastium cerastoides* (L.) Britton**

This species was reported by Pavlides in an unpublished addition to his catalogue of 1985. No details are available, but the locality is likely to be on Mt Varnous.

##### ***Cerastium holosteoides* Fr.**

Alpages à plus de 1850 m, sur les pentes de Bela Voda (Parent 2005: 200). – In isthmo lacus Prespa, 860 m. 1972-06-21, Rechinger 44922 (G). – Lake Prespa, plain of Koula, NE of the frontier post, 860 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15747 (ATH). – Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsch. 2004-05-11, Willing 126977 (B). – Mt Varnous, 6 km SE of Agios Germanos, 1810 m, grassland near the village of Lefkonas, 860 m. Fotiadis & Kazoglou (obs).

Often treated as *C. fontanum* subsp. *vulgare* (Hartm.) Greuter & Burdet.

##### ***Cerastium illyricum* subsp. *comatum* (Desv.)**

P. D. Sell & Whitehead was reported by Pavlides (1985: 168) from three localities in the PNP, but specimens in his herbarium appear

to represent *C. brachypetalum* subsp. *roeseri* (Boiss. & Heldr.) Nyman.

##### ***Cerastium pumilum* subsp. *glutinosum* (Fr.) Jalas**

Cited by Strid & al. (2012) from Mt Devas. No details are available, but the record is feasible. Lippert 18447 (C, M) from Mt Varnous (“östl. Vorgipfel des Kalo Nero”) has been registered as *C. pumilum* subsp. *pallens* (F.W. Schultz) Schinz & Thell.

##### ***Corrigiola litoralis* L.**

2 km westlich Lefkon, Ostufer des Kleinen Prespa-Sees, 855 m. Nasser Sandboden an einem Schmalen Bach. 1989-08-31, Raus 13619 (B). – Sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, 860 m. Partly swampy. 1998-08-07, Strid & Kit Tan 47611 (St). – Same locality. 2006-10-15, Strid 56189 (G, St).

##### ***Cucubalus baccifer* L.**

By the village of Andartiko, 1050 m. 1971-07-29, Stamatiadou 13657 (ATH). – Ajios Germanos village area, 1040 m. 1972-07-09, Haristos 4157 (ATH). – N Prasino, 910 m. Bach, Krautfluren, einz. Laubbäume. 1998-07-29, Willing 71203 (B). – SW Lemos, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71622 (B). – Between Karyes and Oxia, *Alnus* riparian forest. 2016-09-05, Bergmeier 16/247 (Be). – Riparian forest of Agios Germanos river, 860 m. Fotiadis (obs).

Sometimes included in *Silene*, but very different in flowers, fruits and seeds.

##### ***Dianthus carthusianorum* L.**

Pavlides (1985: 168) reported this species from Karies, Vromolini and Perivolaki, but specimens in the Pavlides herbarium under this name represent *D. pinifolius* Sm.

##### ***Dianthus corymbosus* Sm.**

Specimens in the Pavlides herbarium under this name represent *D. viscidus* Bory & Chaub.

##### ***Dianthus cruentus* subsp. *turcicus* (Velen.) Stoj. & Acht.**

Pavlides reported this taxon from Karies, Gofilos and Mazi, but specimens in the Pavlides herbarium under this name represent *Dianthus giganteus* d'Urv.

##### ***Dianthus degenii* Bald.**

Pavlides (1985: 169) reported this species from the vicinity of the village of Oxia (900 m) which is an unlikely locality. *D. degenii* is

now regarded as a subspecies of *D. deltoides* occurring from the vicinity of the Katara Pass northwards to the Albanian border. There are several collections of *D. deltoides* from 1400–2100 m on Mt Varnous, all representing subsp. *deltoides* (see below).

#### *Dianthus deltoides* L. subsp. *deltoides*

Several collections including: Mt Bella Voda, S of the summit of Toumba, 1900–1950 m. Stony ground with meadows between prominent rocks. 1972-06-25, Stamatiadou 16104 (ATH, G). – In austro-orientali verticum Bela Voda vocatorum, 2000–2050 m. In megaphorbietais clivorum solo granitico. 1976-08-01, Greuter 14129 (B, C, G, Gr, UPA). – N of the summit of Kalo Nero, along mountain road to the village of Ag. Germanos, 1600 m. Meadows over granite. 1981-06-28, Strid & al. 18256 (B, C, G, KOR). – ESE of Ag. Germanos, place called Moutsara, 1930 m, grassland. 2010-07-18, Fotiadis & Vrahnakis 7860 (Fo).

This taxon was collected already by Pavlides in 1984 (close to the last-mentioned locality), apparently too late to be included in his 1985 publication.

#### *Dianthus gracilis* Sm.

Ad radices or. montis Kalo Nero supra pagum Plati, 1000 m. 1973-08-03, Greuter 11451 (ATH, C, Gr). – In grassland above Lefkonas, 1530 m, and above Ag. Germanos, 1200 m. Fotiadis & Vrahnakis (obs).

#### *Dianthus monadelphus* subsp. *pallens* (Sm.) Greuter & Burdet

4 km westlich Pili, nahe der albanischen Grenze, 1200 m. *Quercus frainetto*-Buschwälder mit Lichtungen und Forstwegen über Silikatgestein. 1986-08-23, Raus 11321 (B). – In *Juniperus* woodland in Agathoto area, 850 m. Fotiadis & Vrahnakis (obs).

#### *Dianthus pelviformis* [“*perviformis*”] Heuffel

This is a Balkan endemic described from Serbia. It was reported from PNP by Pavlides (1985: 169), but a specimen in his herbarium from Mt Triklario matches *D. stenopetalus* Griseb. Reports of *D. pelviformis* from elsewhere in Greece are likely to refer to *D. cruentus* Griseb. (cf. Strid & Kit Tan 1997: 372).

#### *Dianthus stenopetalus* Griseb.

Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15883 (ATH, G). – Mt Varnous, 5 km S-SSE of the peak of

Kortska Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisci Kalo Nero. Granite. 1981-06-26, Strid & al. 18118 (B, G, KOR, St, UPA). – Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2100 m. 1982-07-08, Lippert 18428 (C, M). – Mt Devas, summit area c. 2 km N of Pili, 1200–1350 m. Rocky limestone slopes and flats in opening of mixed woodland. 2010-06-04, Strid (obs and photo). – In grassland 1 km NW of Lemos, 1080 m. 2010-06-13, Fotiadis & Kazoglou 7171 (Fo).

#### *Dianthus tristis* Velen.

Records cited by Pavlides (1985: 169) probably refer to *D. cruentus* Griseb.

#### *Dianthus viscidus* Bory & Chaub.

Between Karies and Trigono, place named Perivoli, 1000–1050 m, area with *Quercus*. 1971-07-29, Stamatiadou 13652 (ATH). – Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15914 (ATH). – Prope pagum Plati, 900 m. 1973-08-02, Greuter 11504 (ATH, C, Gr). – 3 km südwestl. Lemos, 860 m. Erddämme eines Entwässerungskanals. 1989-08-30, Raus 13598 (B). – OSO Karye, 1050 m. Sandige Hänge, Eichenbuschwald. 1998-07-30, Willing 71387 (B). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs). – Above the village of Lemos in open shrubland (860 m) and in grassland above the village of Agios Germanos (1400 m). 2010-06-13, Fotiadis & Kazoglou 7172 (Fo).

#### *Gypsophila muralis* L.

Sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, partly swampy, 860 m. 1998-08-07, Strid & Kit Tan 47613 (G). – By the deserted village of Sfika, 1200 m. Semi-cultivated fields and wet spots. 2016-08-11, Strid 58623 (G, St).

#### *Minuartia attica* (Boiss. & Spruner) Vierh.

Plants referable to the *M. attica/verna* complex are common in the area. Many are ± intermediate between *M. attica* subsp. *attica* and *M. verna* subsp. *collina* (Neilr.) Domin, and the taxonomy is unsettled.

***Minuartia glomerata* subsp. *velutina*** (Boiss. & Orph.) Mattf.

A collection in the Pavlides herbarium from the lower slopes of Mt Devas near Ag. Georgios labeled *M. glomerata* subsp. *velutina* matches subsp. *macedonica* (Degen & Dörfel.) McNeill. There are several subsequent collections of the latter from the area of PNP.

***Minuartia hamata*** (Hausskn. & Bornm.) Mattf.

Near isthmus of Prespa, on road to the village of Psarades, 900–950 m. Rocky limestone slopes with scrub of *Juniperus oxycedrus* and *J. excelsa*. 1995-05-07, Strid 38933 (C, G). – *Buxus* shrubland near the village of Vrondero, 1090 m. 2011-08-05, Fotiadis & Vrahnakis 8065 (Fo).

***Minuartia hybrida*** (Vill.) Schischk.

WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127024 (B).

***Minuartia mediterranea*** (Link) K. Malý

SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127062 (B).

***Minuartia recurva*** (All.) Schinz & Thell.

Ridge between summit 2177 and Kortscha Toumba (= peak 2334). Alpine grassland and rocky outcrops. Granite. 1981-06-27, Strid & al. 18253 (B, St). – 3 km SSW of Andartiko, 950 m. Dry grassy meadows and open deciduous scrub over granite. 1998-06-15, Strid & al. 46615 (ATH, C, G, Kit). – 5 km E of Agios Germanos, in grassland, 1520 m. 2010-06-13, Fotiadis & Kazoglou 7108 (Fo). Both subsp. *recurva* and subsp. *condensata* (C. Presl) Greuter & Burdet have been reported from the area and the differences are not clear.

***Moenchia graeca*** Boiss. & Heldr.

1 km S of the village of Oxia, 950–1000 m. Edge of mixed deciduous woodland. 2016-04-27, Strid 58288 (St).

***Petrorhagia graminea*** (Sm.) P. W. Ball & Heywood

By the chapel of Agios Georgios at pass on road from Koula to Psarades, 1000 m. Woodland of *Juniperus excelsa* and *Quercus trojana* over limestone. 2010-10-10, Strid 57240 (ATH, G, St).

The taxonomic status of *Petrorhagia graminea* is uncertain; it may be merely an autumn-flowering form of *P. saxifraga* (L.) Link.

***Sagina subulata*** (Sw.) C. Presl

5 km S-SE of the summit of Gortscha Toumba, 1700–1800 m. Damp, grassy meadows and marshes near the

spring of Bella Voda (Kalo Nero). Granite. 1981-06-26, Stamatiadou 22051 (ATH).

***Scleranthus annuus*** L.

Grassland above village of Ag. Germanos, 1100 m. 2010-06-13, Fotiadis & Kazoglou 7109 (Fo).

***Silene damboldtiana*** Greuter & Melzh.

Mt Bella Voda, summit of Toumba, 2050–2170 m. Stony ground with meadows and prominent rocks. 1972-06-26, Stamatiadou 16136 (ATH). – 5 km SSE of the peak of Kortscha Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18156 (B, C, G, KOR). – 4–4.5 km N of the Vigla military post, E of the summit of Bella Voda (Kalo Nero), 1900–2100 m. Alpine meadow with *Vaccinium myrtillus* and *Juniperus communis*. Granite. 1981-06-27, Stamatiadou 22142 (ATH, St).

***Silene dichotoma*** Ehrh.

Lake Prespa, plain of Koula, NE of the frontier post, 860 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15794 (ATH).

***Silene frivaldszkyana*** Hampe

SW Lemos, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71640 (B). – Sandy spit between Megali and Mikri Prespa, western end, on Megali Prespa side, 860 m. 1998-08-07, Strid & Kit Tan 47583 (ATH, G, Kit, LD, St). – Several records in Slogi island, 856 m. 2010-06-10, Fotiadis 7096 (Fo). – Grosser Prespa-See, SO-Ufer W Lemos, 860 m. Stillwasserbereich im *Phragmites australis*-Röhricht. 2011-06-25, Raus & al. 32533 (B). – Spit between Lakes Megali and Mikri Prespa, W of Lemos, open grassland on sand. 2016-08-30, Bergmeier 16/140 (Be).

***Silene gallinnyi*** Heuff. ex Rchb.

Prespa, E of the village Lemos area, 940 m. 1972-07-08, Haristos 3991 (ATH). – N Prasino, 940 m. Bach, Krautfluren, einz. Laubbäume. 1998-07-29, Willing 71205 (B).

***Silene graeca*** Boiss. & Spruner

NO Pili, 870 m. Felswand. 2004-05-11, Willing 127129 (B). – 2 km SW of the village of Psarades, by shore of Megali Prespa, 860 m. Mixed deciduous woodland. 2009-05-20, Strid (obs and photo).

***Silene melzheimeri*** Greuter

A record from Mt Devas cited by Strid al. (2012) is probably incorrect. *S. melzheimeri* is endemic to the serpentine mountains of N Pindos.

***Silene noctiflora*** L.

Reported by Pavlides (1985: 173) from mixed *Fagus-Abies* forest above Ag. Germanos. However, a specimen in the Pavlides herbarium is *S. latifolia* Poir.

***Silene parnassica*** subsp. ***serbica*** (Adamović &

Vierh.) Greuter

Along walking trail between Psarades and Roti, 900 m. Rocky limestone slopes with mixed deciduous/evergreen scrub. 2016-06-06, Strid 58422 (St).

***Silene radicosa*** Boiss. & Heldr.

Lake Megali Prespa, near the military post of Koula, 860 m. 1971-07-28, Stamatiadou 13589 (ATH). – 3 km SW Psarades. Kalkhänge am Südufer des Großen Prespa-Sees, 900 m. *Juniperus excelsa-Carpinus orientalis*-Niederwald mit therophytenreichen Lichtungen. 1989-08-30, Raus & Schiers 13520 (B). – NO Pili. Felswand, Kieferngesellschaft. 1998-07-30, Willing 71597 (B).

***Silene subconica*** Friv.

Just above the village of Agios Germanos, 1100 m. Granitic slope by a road. 2012-05-19, Strid (obs and photo).

***Silene subintegra*** (Hayek) Greuter

Aj. Germanos, 1040 m. 1972-07-08, Haristos 4047 (ATH). – E of Mikri Prespa, NE of Oxia, 860 m. Wet fields. 1998-06-27, Snogerup 15644 (LD). – Vromolimni, at northern end of Mikri Prespa, 860 m. Wet meadows. 2011-05-21, Strid (obs and photo). – See also under *Vaccaria hispanica*. Treated by Dimopoulos & al. (2013) as *Lychnis subintegra* (Hayek) Turrill.

***Silene tenuiflora*** Guss.

SO Karie, 960 m. Krautfluren mit Eichengebüsch, Ackerrand. 2004-05-11, Willing 126872 (B). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127042 (B).

***Silene viridiflora*** L.

*Fagus* forests in the area of Pervali, 1350 m. Fotiadis (obs). – *Quercus* forest at Daseri. 2010-06-10, Fotiadis

7118 (Fo). – *Quercus* forest between Lefkonas and Karies, 930 m. 2010-08-07, Fotiadis & Vrahakis 7214 (Fo).

***Silene waldsteinii*** Griseb.

Several collections from Mt Varnous, including: Mt Bella Voda, summit of Toumba, 2050–2170 m. 1972-06-26, Stamatiadou 16155 (ATH, St). – Stony ground with meadows and prominent rocks. S. side of summit 2177, c. 3 km SSE of Kortscha Toumba (peak 2334), 1900–2150 m. Alpine grassland dominated by *Festuca* and patches of *Vaccinium myrtillus*. Granite. 1981-06-27, Strid & al. 18218 (B, C). – SE-facing slopes S of the summit Peneriga, 1900–2050 m; meadows and rocky, granite ground with *Juniperus* sp. and *Vaccinium myrtillus*. 1992-07-26, Anagnostopoulos & Athanasiou 3284 (UPA).

***Stellaria alsine*** Grimm

Mt. Varnous, 5 km S-SSE of the peak of Kortscha Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18138 (St). – Same area. 2016-06-05, Strid (photo). – Mt. Varnous, place called Moutsara, spring, 1960 m. 2016-08-31, Bergmeier 16/189 (Be).

***Stellaria apetala*** Ucria

SW Karie, Ackerrand, Acker, Wassergraben, 900 m. 2004-05-11, Willing 126906 (B). – SO Psarades, Felswand, Krautfluren am See, 860 m. 2004-05-11, Willing 127082 (B).

***Stellaria graminea*** L.

A specimen in the Pavlides herbarium labeled *S. graminea* represents *S. alsine*. Both species have subsequently been confirmed on Mt Varnous. *S. graminea* was collected in damp grassland at high altitude, 1981-06-27 (Strid & al. 18240; B, C = Stamatiadou 22164; ATH, C). There are also several records from Pissoderi just outside PNP.

***Stellaria neglecta*** Weihe

Reported by Pavlides (1985: 175) from Devas and Psarades. However, a specimen in the Pavlides herbarium represents *S. media*.

***Vaccaria hispanica*** (Mill.) Rauschert

Prespa National Park, Karies. Reported by Pavlides (1985: 175), as *V. pyramidata* Medik. However, a specimen in the Pavlides herbarium represents *Silene subintegra*. [*Vaccaria pyramidata* was confirmed by Bergmeier in 2017].

**CELASTRACEAE*****Euonymus verrucosus* Scop.**

Near the village of Pili, in mixed deciduous forest, 880 m. 2010-08-05, Fotiadis & Vrahakis 7234 (Fo). – 2 km SW of the village of Psarades, 880 m. By a walking trail near lake Megali Prespa, mixed deciduous/evergreen woodland over limestone. 2011-06-26, Strid (obs and photo). – SE of Vrondero, between Vrondero and the abandoned village of Agathoto, 1030 m, deciduous *Carpinus orientalis*-*Ostrya carpinifolia* woodland. 2016-07-20, Bergmeier 16/131 (Be).

**CHENOPodiACEAE*****Atriplex hortensis* L.**

Mikrolimni. 2016-09-05, Bergmeier 16/259 (Be).

Locally naturalized, formerly cultivated.

***Blitum virgatum* L.**

Ag. Germanos village area, 1040 m. 1972-07-09, Haristos 4149 (ATH). – Shores of lake Megali Prespa by the village of Psarades, 850 m. 1975-05-10, Stamatidou 18556 (ATH).

***Chenopodium strictum* Roth**

Karyes. Krautfluren am Ort, 935 m. 2014-10-09, Willing 250217 (B).

Specimens with red-striate stem, narrow subentire leaves and only slightly mealy inflorescence, thus matching *C. strictum* which was reported from Samothraki as new for the country by Biel & Kit Tan (2011: 249) and has subsequently been confirmed from a few other localities in N Greece. Most of the unpublished records by Willing identified as *C. strictum* refer to forms of *Ch. album*, however.

***Chenopodium opulifolium* Schrad.**

Psarades. 2016-09-06, Bergmeier 16/281 (Be). – Plati, village. 2016-09-07, Bergmeier (obs).

***Dysphania ambrosioides* (L.) Mosyakin & Clemants**  
Sandy spit between Megali and Mikri Prespa, western end, on Megali Prespa side, 860 m. 1998-08-07, Strid & Kit Tan 47583a (G, Kit). – Vromolimni, N edge of Lake Mikri Prespa, livestock fold. 2016-09-03, Bergmeier 16/208 (Be).

***Dysphania pumilio* (R. Br.) Mosyakin & Clemants**  
By Zachariadis cave just W of Pili, 950 m. In roadside

gravel. 2010-10-16, Strid 57244 (G, St). – Psarades. 2016-09-06, Bergmeier 16/280 (Be).

A xenophyte of Australian origin, first reported in Greece by Bergmeier (1988: 40). It appears to be spreading rapidly and has now been reported from several localities in the north as well as isolated sites in Attiki, N Peloponnisos and on the island of Samos.

***Lipandra polysperma* (L.) S. Fuentes, Uotila & Borsch**

By the ruins of Sfika village, 1200 m. Semi-cultivated fields and wet spots. 2016-08-11, Strid 58617 (St). – Mikrolimni, village edge, on the shore of Lake Mikri Prespa. 2016-09-05, Bergmeier 16/264 (Be).

***Oxybasis rubra* (L.) S. Fuentes, Uotila & Borsch**  
Mikrolimni, village edge, on the shore of Lake Mikri Prespa. 2016-09-05, Bergmeier 16/263 (Be).

Apparently the first confirmed record for Greece. Koumpli-Sovantzi (1983: 103) reported this species (as *Chenopodium rubrum* L.) from the shore of Lake Amvrakia (Etolias-Akarnanias), but according to Uotila (in litt.) this is likely to refer to *Oxybasis chenopodioides*. An old record of *Chenopodium rubrum* from the island of Poros (Friedrichsthal 1838: 274) is probably incorrect.

***Oxybasis urbica* (L.) S. Fuentes, Uotila & Borsch**  
Vromolimni, N edge of Lake Mikri Prespa, livestock fold. 2016-09-03, Bergmeier 16/207 (Be).

**CISTACEAE*****Cistus creticus* L.**

E of Mikra Prespa, 2 km NNW of Karyes, open oak forest, 950 m. 1998-07-01, Snogerup 15873 (UPS). – Confirmed in this locality by Vrahakis et al. (2011) and by Strid, 2016-06-08. Apparently rare and local in the Prespa area.

***Helianthemum apenninum* (L.) Mill.**

Recorded by Pavlides (1985: 177) from Agathoto-Vrodero. However, specimens in the Pavlides herbarium represent *H. nummularium* (L.) Mill. In Greece *H. apenninum* is now believed to be restricted to the south.

***Helianthemum ledifolium* (L.) Mill.**

Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place

named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15913 (ATH). – 3 km SSW of Andartiko, 950 m. Dry grassy meadows and open deciduous scrub over granite. 1998-06-15, Strid & al. 46630 (ATH, G, Kit, LD, St).

#### ***Helianthemum nummularium* (L.) Mill.**

This species was not reported by Pavlides, but there are several subsequent records from the area of the Prespa National Park.

#### ***Tuberaria guttata* (L.) Fourr.**

Thermophilous grassland above Ag. Germanos. 2010-06-13, Fotiadis & Kazoglou 7116 (Fo).

### **COLCHICACEAE**

#### ***Colchicum cupaniifolium* Guss.**

Records of the species (Pavlides 1985: 281) are out of range and probably incorrect.

#### ***Colchicum doerfleri* Halász**

Mt Devas: Near the summit, 1350 m. Rocky limestone flats in opening of mixed deciduous/evergreen woodland. 2016-04-25, Strid 58259 (St, fruiting).

#### ***Colchicum haynaldii* Heuff.**

Near the village of Pili, grassland by Lake Mikri Prespa, 870 m. 2012-09-12, Strid 57612 (G, GB, St); also cultivated in Oerbaek, Denmark.

### **COMMELINACEAE**

#### ***Commelina communis* L.**

Mikrolimni, disturbed site on the shore of Lake Mikri Prespa. 2016-09-05, Bergmeier 16/268 (Be).

Not native in S Europe and considered casual in Greece by Dimopoulos & al. (2013), but spreading and perhaps naturalized in N Greece.

### **CONVOLVULACEAE**

#### ***Cuscuta brevistyla* A. Rich.**

2 km SW of Psarades, 860–900 m. Rocky limestone hills just above shore of Lake Megali Prespa. 2011-06-26, Strid 57316 (St).

#### ***Cuscuta campestris* Yunck.**

S Karyes. Krautfluren, Straßenrand, 915 m. 2014-10-

09, Willing 250164 (B). – Ag. Germanos, garden W of the village. 2016-09-02, Bergmeier 16/203 (Be).

#### ***Cuscuta epithymum* (L.) L.**

Grosser Prespa-See, 2 km W Psarades, 860 m. Auf *Centaurea salonitana*. 2011-06-26, Raus 32556 (B).

#### ***Cuscuta europaea* L.**

In the village of Lemos, 950 m. Ruderal habitats. Parasitic on various herbs. 2010-10-12, Strid 57242 (St). – Villages of Ag. Germanos, 2016-09-02, Vrondero, 2016-09-04, and Lemos, 2016-09-06 (all Bergmeier, obs). – Ag. Germanos Potamos, 0.5 km from mouth, streamside with tall herb vegetation. 2016-08-30, Bergmeier (obs).

#### ***Cuscuta planiflora* Ten.**

Prespa, area of village Lemos, 940 m. 1972-07-07, Haristos 3906 (ATH).

### **CORNACEAE**

#### ***Cornus sanguinea* L. subsp. *sanguinea***

Between Karies and Oxia, *Alnus* riparian forest. 2016-09-05, Bergmeier 16/248 (Be).

In Dimopoulos & al. (2013) only *C. sanguinea* subsp. *australis* (C. A. Mey.) Jav. was reported from Greece. In fact, there are some previous reports also of subsp. *sanguinea* (including some by Pavlides from PNP). Gutermann observed plants from Kerkira to be more or less intermediate between the two subspecies – see Flora Ionica Working Group (2016 onwards).

### **CRASSULACEAE**

#### ***Hylotelephium telephium* (L.) Ohba**

Sandy grassland in Slogi island (Mikri Prespa), 856 m. 2010-06-10, Fotiadis 7253 (Fo).

#### ***Sedum aetnense* Tineo ex Guss.**

Near the village of Agios Germanos, 1000–1200 m, on gravelly slopes. 2008-04-30, Bourguignon 1 (P). Reported by Bourguignon (2010) as new for Greece.

#### ***Sedum alpestre* subsp. *erythraeum* (Griseb.) 't Hart**

A specimen from Mt Varnous was seen by 't Hart for Mountain Flora of Greece (see Strid 1986: 348, no details available).

***Sedum caespitosum* (Cav.) DC.**

SW Karie, 900 m. Ackerrand, Acker, Wassergraben. 2004-05-11, Willing 126901 (B). – SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127070 (B). – Grassland near the villages of Plati and Kalithea, 890–1080 m. Fotiadis & Vrahnakis (obs). – Also reported by Stephenson & Stephenson (2000: 16) from the vicinity of Psarades.

***Sedum magellense* subsp. *olympicum* (Boiss.)**

Greuter & Burdet

Reported from Mt Varnous in Strid (1986: 353), no details available.

***Sedum rubens* L.**

Reported by Stephenson & Stephenson (2000: 16) from several localities in PNP (Karies, Mikrolimni, Koula and NW of Prasino).

***Sedum tuberiferum* Stoj. & Stef.**

Reported by Stephenson & Stephenson (2000: 16) from Koula.

***Sedum urvillei* DC.**

Above Oxia, 1480 m. Dry grassland over limestone. 1999-07-05, Schuler 99/850 (B, Schu). – Place called Koula at western end of sandy spit between the two lakes, 860 m. Sandy flats and limestone cliffs. 2016-06-03, Strid 58314 (St). – Also reported by Stephenson & Stephenson (2000: 16) from Koula, Mikrolimni and Oxia.

***Sempervivum ciliosum* Craib**

Mt Triklario: Area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes with grassland and scattered deciduous woodland. 2016-06-07, Strid 58451 (St).

***Sempervivum heuffelii* Schott**

Weg zum Gipfel Kalo Nero, 1880–2150 m. Alpine Trockenwiese, Granitfelsen. 1990-08-26, Pirker & al. 330 (B).

***Sempervivum hirtum* L.**

Reported from Sfika-Triklario by Pavlides (1997a: 36), sub nom. *Jovibarba hirta* (L.) Opiz subsp. *hirta*. The record needs confirmation and may refer to *Sempervivum ciliosum* (see above) or *S. heuffelii* Schott. A specimen in the Pavlides herbarium is fragmentary.

***Sempervivum ruthenicum* Schnittsp. & C. B. Lehm.**

Ridge between summit 2177 and Kortska Toumba (= peak 2334). Alpine grassland and rocky granitic outcrops. 1981-06-27, Strid & al. 18244 (G, St). – Subalpine grassland above the village of Kallithea. 2010-08-07, Fotiadis & Vrahnakis 7525 (Fo).

**CUCURBITACEAE*****Bryonia alba* L.**

Antartikon [Jelova]. Alston & Sandwith 805 (K). Reported by Jeffrey (1969: 456). – Near the village of Oxia, 880 m. Climbing in roadside thicket. Berries dark green, turning black. 2016-08-11, Strid 58600 (St). – Vrondero, village, fence, berries black. 2016-09-04, Bergmeier (obs).

**CYPERACEAE*****Blysmus compressus* (L.) Panzer ex Link**

Mt Varnous: Near source of Kaloneri stream, 1800 m. Seepage meadow. 2016-08-10, Strid 58578 (G, St).

***Bolboschoenus maritimus* (L.) Palla (aggr.)**

Vromolimni, 1984-04-15, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication). – In reedbeds 1.5 km WSW of Lefkonas. 2010-07-20, Kazoglou (obs).

Pavlides referred to this species the wide sense adopted at his time. However, *B. maritimus* s. str. is rather unlikely to occur in this inland locality. *B. glaucus* (Lam.) S. G. Sm. is most likely, but another species of *Bolboschoenus* cannot be ruled out. Careful examination of fruiting material is needed (cf. Hroudová & al. 2007).

***Carex acuta* L.**

Peristeri de Macédoine, suintements et mégaphorbiaie sous la piste qui longe la crête dominant à l'W de lac de Mikri Prespa. Reported by Parent (2005: 230). Alston & Sandwith 809 (K) from the same area was reported as *C. kurdica* Kük. ex Hand.-Mazz. by Jiménez-Mejías & al. (2014: 71). The latter is otherwise an Irano-Turanian species and its presence in the W Balkans needs confirmation.

***Carex acutiformis* Ehrh.**

E of Mikri Prespa, NE of Oxia, 860 m, wet fields. 1998-06-27, Snogerup 15647 (LD). See also Snogerup & Sno-

gerup (2000: 267). – Shores of Mikri Prespa in the area of Daseri. 2010-08-08, Fotiadis & Kazoglou 7916 (Fo).

**Carex atrata** L.

A record from “Oros Kalo Nero” (Varnous) by Pavlides (1985: 265), based on Zaganiaris (1940) is feasible but needs confirmation. The only confirmed Greek locality for this arctic-alpine species is in the summit area of Mt Vardousia.

**Carex depauperata** Curtis ex With.

By Pixos sheepfolds, c. 3 km WNW of Pili, 1000 m. Open mixed woodland dominated by deciduous oaks. 2013-05-11, Strid 57690 (G, St). – E of the summit of Mt Devas, in open mixed woodlands, 1200 m. 2010-05-20, Fotiadis & Vrahnakis 7016 (Fo).

**Carex echinata** Murray

5 km S-SSE of the peak of Kortska Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18145 (ATH, B, C, G). – Several records near springs, 5–6 km E of Agios Germanos (area called Giovanitsa), 1500–1800 m. 2010-07-02, Fotiadis & Kazoglou 7120 (Fo).

**Carex ericetorum** Pollich

Reported by Pavlides (1985: 266) from a swampy area by lake Megali Prespa near Koula. There is no subsequent confirmation from this locality nor elsewhere in Greece, and the species was not included in Dimopoulos & al. (2013). A specimen in the Pavlides herbarium is too young to be identified with certainty, but is not likely to be *C. ericetorum*.

**Carex flacca** Schreb.

*Quercus* forests in the area of Mt Devas, 1100–1200 m. 2010-05-20, Fotiadis & Vrahnakis 7115 (Fo). Probably representing subsp. *serrulata* (Spreng.) Greuter.

**Carex nigra** (L.) Reichard

5 km S-SSE of the peak of Kortska Toumba (peak 2334), 1700–1800 m. Wet meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18142 (ATH, B, EGE, G, St).

**Carex otrubae** Podp.

Near the village of Pili, 860 m. Reed belt by Lake Mikri Prespa. 2010-06-04, Strid (obs). – SE of Pili, ditch. 2016-09-03, Bergmeier (obs). – Wet places between Megali and Mikra Prespa (eastern end of Megali Prespa). Fotiadis & Kazoglou (obs). – Near Lefkonas vil-

lage. 2009-06-14, Kazoglou (obs). – This species was also reported by Pavlides (1985: 266) from Agathoto, Ag. Germanos and Vrondero, sub nom. *C. vulpina*.

**Carex pallescens** L.

5 km S-SSE of the peak of Kortska Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18144 (B, C, G).

**Carex remota** L.

Between Karyes and Oxia, 870 m, *Alnus* riparian forest. 2016-09-05, Bergmeier & Fotiadis (obs).

**Carex tomentosa** L.

3 km ENE of Mikrolimni, 900 m. wet meadow. 1998-07-01, Snogerup 15869 (LD).

**Carex viridula** Michx.

Mt. Varnous, ESE of Ag. Germanos, place called Moutsara, 1950 m, seepage grassland. 2016-08-31, Bergmeier 16/183 (Be).

**Carex vulpina** L.

Reported by Pavlides (1985: 266); however, specimens in the Pavlides herbarium represent *C. otrubae*. All other Greek records of *C. vulpina* are also likely to be incorrect.

**Cladium mariscus** (L.) Pohl

This species was reported by Pavlides (1985: 266), but a specimen in the Pavlides herbarium is *Scirpus sylvaticus*. The presence of true *Cladium mariscus* by Lake Prespa is feasible but unlikely as it has not been found in intensive surveys over the last 20 years (Kazoglou).

**Cyperus longus** L.

SW Lemos, 880 m. Sumpfwiese, Schilf, Weidenäue. 1998-07-30, Willing 71549 (B). – Lemos, ditch. 2016-09-06, Bergmeier (obs). – Near Mikrolimni, inside reedbeds. 2007-08-04, Kazoglou (obs).

**Eleocharis acicularis** (L.) Roem. & Schult.

A report by Pavlides (1985: 267), cited from Lavrentiadis (1956) needs confirmation.

**Eriophorum angustifolium** Honck.

Peristeri de Macédoine, suintements et mégaphorbiaie sous la piste qui longe la crête dominant à l'W de lac de Mikri Prespa. 2006-05-24, Parent 83/109 (see Parent 2005: 229).

***Pycreus flavescens* (L.) Rchb.**

Sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, 860 m. Partly swampy. 1998-08-07, Strid & Kit Tan 47616 (G). – By mouth of Agios Germanos stream, 860 m. Wet sand. 2010-10-10, Strid 57237 (St).

***Schoenoplectus supinus* (L.) Palla**

Between Prespa lakes. Mud community on alluvial deposits. 1999-08-23, Schuler 99/1420 (B). See Schuler (2007: 237). – SE Pili, W shore of Lake Mikri Prespa. 2016-09-03, Bergmeier 16/220 (Be).

***Scirpus sylvaticus* L.**

N of the summit of Bella Voda (Kalo Nero), 2 km from spring known as Vrisi Kalo Nero, along road to Ajos Germanos, 1600 m. Damp meadows by a small stream. Schist. 1981-06-28, Stamatiadou 22197 (ATH, C). – N of the summit of Kalo Nero, 1600 m. Along mountain road to the village of Ag. Germanos. Meadows. 1981-06-28, Strid & al. 18259 (B, C, G, LD). – Near Oxia, 870 m, *Alnus* riparian forest. 2016-09-05, Bergmeier (obs).

**DIOSCOREACEAE*****Tamus communis* L.**

Near Oxia, 870 m, *Alnus* riparian forest. 2016-09-05, Bergmeier & Fotiadis (obs). Treated by Dimopoulos & al. (2013) as *Dioscorea communis* (L.) Caddick & Wilkin.

**DIPSACACEAE*****Cephalaria flava* (Sm.) Szabo**

SO Karye. Laubgebüsch, nasser Straßengraben. 1998-07-30, Willing 71411 (B). – Approximately same locality. 2006-10-13, Strid 56169 (seed collection) and Strid 58630 (St).

***Knautia albanica* Briq.**

Reported by Pavlides in an unpublished addition to his catalogue of 1985 (no details available). The species is not otherwise known in Greece, and the record needs confirmation.

***Knautia orientalis* L.**

Near place called Pixos sheepfolds, c. 3 km WNW of Pili, 950 m. Semi-cultivated cereal fields with many weeds. 2014-07-12, Strid 58101 (G, St).

***Lomelosia brachiata* (Sm.) Greuter & Burdet**

Kapelle Agios Georgios am Berg Devas südl. Psarades, 1060 m. Offener *Quercus trojana* - *Juniperus excelsa*-Wald über Kalkgestein. 2011-06-25, Raus & al. 32502 (B).

***Lomelosia rotata* (M. Bieb.) Greuter & Burdet**

Mt Devas, summit area, 1350 m. Rocky limestone flats and slopes in opening of mixed deciduous/evergreen woodland. 2011-06-25, Strid 57307 (ATH, B, G, St).

***Scabiosa columbaria* L. subsp. *columbaria***

Gipfel des Kalo Nero. Bergweiden und Zwergstrauchbestände mit Silikatfelsdurchdringungen, 2000–2100 m. 1986-08-21, Raus & al. 11166 (B).

***Scabiosa triniifolia* Friv.**

Lake Prespa area, alluvial plain between Lemos and Koula, 860 m. 1971-07-29, Stamatiadou 13629 (ATH). – Prespa, E of the village Lemos area, 940 m. 1972-07-08, Haristos 3923 (ATH). – W of Mikri Prespa, by the village of Vronderon (Vrondero), 1040 m. Deciduous oak scrub, dry meadows in the vicinity of the filakion just SW of the village. 1985-07-20, Strid 24815 (G).

**DROSERACEAE*****Aldrovanda vesiculosa* L.**

Fragma area at southern end of Lake Mikri Prespa, by the Albanian border, 853 m. In shallow water. 1984-07-14, Pavlides s.n. There is a specimen in the Pavlides herbarium, but the record was too late to include in his publication of 1985. This rare species was rediscovered in the same locality 2011-06-26; scarce, floating in 1–2 m deep water at outer edge of reed beds, with *Utricularia vulgaris* & *minor*, *Myriophyllum spicatum*, etc. (Raus & al. 32544, B). It was subsequently confirmed in Lake Mikri Prespa: SW of Lefkonas, reedbed, shallow water. 2016-07-19, Bergmeier 16/85 (Be), and Vromolimni, shallow water at landward edge of reedbed. 2016-09-03, Bergmeier 16/211 (Be). Mikri Prespa is the only extant locality in Greece (see photo in Dimopoulos & al. 2013: 337).

**ERICACEAE*****Monotropa hypopitys* L.**

*Fagus* forests in Mt Triklario, 1230 m. – Above Lefkonas village, 1350 m. – Above Ag. Germanos village, 1500–1900 m. – Pervali area, 1230 m.

All field observations by Fotiadis, Kazoglou &

Vrahnakis. Treated by Dimopoulos & al. (2013) as *Hyppopitys monotropa* Crantz.

#### *Orthilia secunda* (L.) House

Kalo Nero, 1600–1630 m. Opening in mixed *Fagus/Abies* forest. 1999-08-24, Schuler 99/1426 (B). – *Fagus* forests above the village of Lefkonas, 1500 m. 2010-08-06, Fotiadis & Kazoglou 7268 (Fo).

#### *Pyrola minor* L.

*Fagus* forests above the village of Ag. Germanos, 1500–1800 m. 2010-08-06, Fotiadis & Kazoglou 7271 (Fo).

#### EUPHORBIACEAE

##### *Euphorbia phymatosperma* Boiss. & Gaill.

Reported from Mt Devas by Pavlides (1985: 203), sub nom. *E. segetalis* (specimen seen in the Pavlides herbarium).

##### *Euphorbia prostrata* Aiton

Psarades, village, trampled site. 2016-09-06, Bergmeier 16/282 (Be). – Lemos, roadside. 2016-09-06, Bergmeier 16/291 (Be).

##### *Euphorbia rigida* M. Bieb.

Reports by Pavlides (1985: 203) from Vromolimni and Devas are incorrect. Specimens in the Pavlides herbarium match *E. verrucosa*.

##### *Euphorbia segetalis* L.

See under *E. phymatosperma*.

##### *Euphorbia stricta* L.

E of the village Lemos area. 1972-07-08, Haristos 3973 (ATH). – E of Mikri Prespa, NE of Oxia, wet fields, 850 m. 1998-06-27, Snogerup 15646 (LD). – Sfika, wet grassland habitat. 2016-09-05, Bergmeier 16/272 (Be).

##### *Euphorbia taurinensis* All.

Lake Prespa, plain of Koula, NE of the frontier post, 860 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiodou 15758 (ATH, C). – WSW Vatochori, 910 m. Sandiger Hang, Krautfluren, Laubwald. 1998-07-29, Willing 71179 (B). – SO Karie, 960 m. Krautfluren mit Eichengebüsch, Ackerrand. 2004-05-11, Willing 126881 (B). – NO Pili, 870 m. Felswand. 2004-05-11, Willing 127135 (B). – 0.5 km S of Psarades inside woodland. 2010-05-10, Fotiadis & Vrahnakis 7165 (Fo).

##### *Euphorbia verrucosa* L.

In austro-orientali verticum Bela Voda vocatorum, 2000–2050 m. In megaphorbietis clivorum solo granitico. 1976-08-01, Greuter 14124 (C, Gr). – 2 km NE of the summit of Kalo Nero, 1850–1950 m. Rather dry alpine grassland. Granite. 1981-06-27, Strid & al. 18190 (B, G, St). – Area called Moutsara c. 4 km SE of Agios Germanos, 1900–2000 m. Alpine meadow over granite. 2010-06-07, Strid 57170 (G, St).

#### FABACEAE

##### *Astragalus angustifolius* Lam.

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49137 (G, Kit, St). – Mt Devas, summit area, 1300 m. Rocky limestone slopes with open woodland of *Juniperus excelsa*, *J. oxycedrus*, *Quercus trojana*, *Acer monspessulanum*, etc. 2006-10-14, Strid (obs). – See also under *A. parnassi*. In the Pavlides herbarium is one collection from Dikorfo-Moutsara, gathered 1985-06-30, apparently too late to be included in his 1985 publication.

##### *Astragalus hamosus* L.

SO Psarades, 860 m. Felswand, Krautfluren am See. 2004-05-11, Willing 127091 (B). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

##### *Astragalus mayeri* Micevski

National park of Mikri Limni Prespa, above Oxia, 1400 m. Dry grassland over limestone. 1999-07-05, Schuler 99/929 (B). – Openings in mixed forest S of Agios Georgios, 1100 m. 2010-05-20, Fotiadis & Vrahnakis 7232 (Fo). – Berg Devas südl. Psarades, 1100 m. Offener *Quercus pubescens* - *Ostrya carpinifolia*-Wald über Kalkgestein. 2011-06-25, Raus & al. 32511 (B).

Reported from the Albanian side of the Prespa National Park by Shuka & Tan (2013: 15).

##### *Astragalus parnassi* Boiss.

Pavlides (1985: 216) reported this species from the vicinity of Psarades, Pili and Koula, but specimens in the Pavlides herbarium represent *A. angustifolius*.

***Astragalus physocalyx*** Fisch.

In the Pavlides herbarium is one collection from Mt Triklario, 1400–1700 m (border of PNP), gathered 1984-06-06, apparently too late to be included in his 1985 publication. This rare species is known only from a few localities in N Greece, FYROM and SW Bulgaria.

***Astragalus sericophyllus*** Griseb.

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49104 (ATH, G, Kit, LD, UPA). Pavlides (1985: 216) reported this species from the road between Agios Georgios and Devas at 1000–1300 m, but a specimen in the Pavlides herbarium represents the subsequently described *A. mayeri*.

Both species appear to occur in the area which is consistent with their overlapping general distribution. The difference is not always clear. One collection (Strid 58331 from the chapel of Agios Georgios half-way between Koula and Psarades, 2016-06-03; G, St) has leaves like *A. mayeri*, but not the characteristic zebra-striped legumes. Other collections from this area (Schuler 99/829, Raus & al. 32511 and Fotiadis & Vrahnakis 7232) have been identified as *A. mayeri* – see above.

***Astragalus sirinicus*** Ten.

Lake Prespa, S of the military post of Koula and above road to village of Pili, 950 m. Barren, stony calcareous ground. 1975-05-10, Stamatiadou 18531 (ATH, G).

***Chamaecytisus austriacus* (L.) Link**

Plain of Koula, NE of the frontier post, 855 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15803 (ATH). – By the Greek-Albanian frontier, SW of the village of Vrontero to the 13th pyramid, 1200–1300 m. Forest with *Quercus* and *Buxus* on stony and rocky calcareous ground. 1975-05-09, Stamatiadou 18447 (ATH, G). – 2 km WNW of Trigono, c. 6 km E of Mikrolimni, sandy slope, 1100 m. 1998-07-01, Snogerup 15862 (LD). – SE of Megali Prespa, SW of Lemos, 860 m, dry hillside. 1998-07-01, Snogerup 15897 (LD, UPS). – SO Karye, 1030 m. Laubgebüsch, nasser Strassengraben. 1998-07-30, Willing 71406 (B). Stamatiadou 18447 has been identified as subsp. *heufelii* (Griseb. & Schenk) K. I. Chr.

***Cytisus procumbens*** (Willd.) Spreng.

Lake Prespa, S of the military post of Koula and above the road to the village of Pili. Barren, stony calcareous ground, 950 m. 1975-05-10, Stamatiadou 18526 (ATH, C). – Near isthmus of Prespa, on road to the village of Psarades. Rocky limestone slopes with scrub of *Juniperus oxycedrus* and *J. excelsa*, 900–950 m. 1995-05-07 Strid 38936 (C). – Mt Sfika (Triklario), 3 km S of the village of Oxia. Rocky limestone slope in opening of *Fagus* forest, 1450 m. 2009-05-18, Strid (photo). – Mt Devas, E to ENE of the summit. Open deciduous oak woodland over rocky limestone slopes, 1200 m. 2011-05-21, Strid (photo). – 1.5 km SW of the village of Oxia. Damp deciduous woodland on rocky limestone slopes, 1150 m. 2016-04-27, Strid 58291 (G, St).

***Dorycnium germanicum*** (Greml.) Rikli

OSO Karye, 1050 m. Sandige Hänge, Eichenbuschwald. 1998-07-30, Willing 71368 (B).

***Genista carinalis*** Griseb.

Just above the village of Oxia, 950 m. Calcareous road embankment in deciduous woodland. 2016-06-07, Strid 58432 (G, St).

***Genista depressa*** M. Bieb.

Mt Bella Voda, S of the summit of Toumba, 1900–1959 m. Stony ground with meadows between prominent rocks. 1972-06-25, Stamatiadou 16098 (ATH, G). – In austro-oriental verticum Bela Voda vocatum, 2000–2050 m. In megaphorbiets clivorum solo granitico. 1976-08-01, Greuter 14127 (UPA). – 5 km S-SSE of the peak of Kortsia Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18155 (B, C, G, UPA).

***Genista sagittalis*** L.

Pavlides (1985: 216) reported this species from “Oros Kalo Nero”, citing Zagariaris (1940), sub nom. *Chamaespartium sagittale* (L.) P. E. Gibbs. In the Pavlides herbarium is also a specimen collected 1984-06-21 (too late to be included in his 1985 publication) “between Potistra and Dikorfo, 2000 m”.

***Genista sericea*** Wulfen

*Fagus* forest in area called Garlini, 1300 m. 1985-07-05, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his

1985 publication). – National park of Mikri Limni Prespa, above Oxia, 1400 m. Dry grassland over limestone. 1999-07-05, Schuler 99/842 (B). – In *Juniperus* woodland 1.5 km west of Ag. Achilleios island, 920 m. Fotiadis & Vrahnakis (obs).

***Hippocrepis ciliata* Willd.**

Open woodland on a small hill called Goritsa 2 km west of Lefkonas village, 870 m. Fotiadis & Kazoglou 7318 (Fo).

***Hippocrepis comosa* L.**

Mt Triklario: Area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes with grassland and scattered deciduous woodland. 2016-06-07, Strid 58441 (St).

With glabrous legumes, thus matching *H. glauca* Ten. (ex descr.). However, all such plants from NW Greece are likely to represent forms of *H. comosa*.

***Lathyrus hirsutus* L.**

Lake Prespa, plain of Koula, NE of the frontier post, 860 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15773 (ATH).

***Lathyrus inconspicuus* L.**

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid 49093 (G). – Grassland near the village of Plati, 870 m. Fotiadis & Vrahnakis (obs). – Openings in *Quercus* forests in the area of Pixos sheepfolds, 1000–1100 m. Fotiadis & Vrahnakis (obs).

***Lathyrus nissolia* L.**

NW Andartiko, 1280 m. Straßenrand, Buchenwald. 1998-08-01, Willing 72074 (B). – Openings in *Quercus* forests near the village of Karies, 970 m. 2010-07-17, Fotiadis & Vrahnakis 7169 (Fo).

***Lathyrus pallescens* (M. Bieb.) Koch**

A specimen in the Pavlides herbarium labeled *L. pallescens* can scarcely be identified. Other Greek records of this species are from a small area in Southern Pindos. Occurrence in the Prespa area needs confirmation.

***Lathyrus saxatilis* (Vent.) Vis.**

3 km südwestl. Psarades, 900 m. Kalkhänge am Südufer des Großen Prespa-Sees, *Juniperus excelsa-Carpinus*

*orientalis*-Niederwald mit therophytenreiche Lichtungen. 1989-08-30, Raus & al. 13537 (B).

***Lathyrus setifolius* L.**

SO Psarades, 860 m. Felswand, Krautfluren am See. 2004-05-11, Willing 127104 (B).

***Lathyrus sphaericus* Retz.**

SW Andartiko, 1050 m. Eichenwald, Ackerrand. 2004-05-11, Willing 126801 (B). – SW Karie, 870 m. Feuchtwiese, krautiger Hang mit Laubgebüsch. 2004-05-11, Willing 126924 (B). – Openings in mixed forests in the area of the village Psarades, close to Cape Roti, 910 m. 2010-05-08, Fotiadis & Vrahnakis 7018 (Fo).

***Lathyrus tuberosus* L.**

2–5 km from Pili towards Vrondero, by the hill of Velika Glavia, 950–1050 m. Forest with *Quercus*, *Fraxinus*, *Acer* and *Buxus*. Stony calcareous ground. 1972-06-22, Stamatiadou 15859 (ATH). – Pili, 860 m. Gemüsefelder am südlichen Ortsrand. 1986-08-23, Raus 11481 (B). – Between the Prespa lakes, 3 km SW of Laimos, 860 m. Among irrigated fields. 1998-06-27, Snogerup 15668 (LD, UPS).

***Lathyrus vernus* (L.) Bernh.**

This species, as well as *L. venetus* (Mill.) Wohlf., were reported by Pavlides (1985: 218) from *Fagus* forest in the Prespa area. A rather poor specimen in the Pavlides herbarium labeled *L. vernus* can scarcely be identified with certainty. There are several subsequent records of *L. venetus* in the PNP, but no confirmation of *L. vernus*.

***Lens nigricans* (M. Bieb.) Godr.**

Just NW of western end of sandy spit between Mikri and Megali Prespa. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49107 (ATH, G, Kit). – SO Karie, 1030 m. Eichenwald, Krautfluren. 2004-05-11, Willing 126844 (B). – SO Psarades, 860 m. Felswand, Krautfluren am See. 2004-05-11, Willing 127107 (B). – SW of the village of Psarades, above shore of Lake Megali Prespa, 860–900 m. Rocky limestone slopes with woodland of *Buxus sempervirens* and *Juniperus oxycedrus*. 2009-05-20, Strid 56828 (St). – Along walking trail between Psarades and Roti, 900 m. Rocky limestone slopes with mixed deciduous/evergreen scrub. 2016-06-06, Strid 58426 (G, St).

***Lotus angustissimus* L.**

Vromolimni, flat N of Lake Mikri Prespa, wet to dry pasture. 2016-09-03, Bergmeier 16/209b (Be).

***Lotus tenuis* Willd.**

SW Lefko, 940 m. Sandhänge mit Eichengebüsch. 1998-07-30, Willing 71512 (B). – SW Lemos, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71613 (B). – SW of Lefkonas, E shore of Lake Mikri Prespa, wet grassland. 2016-07-19, Bergmeier (obs).

***Lupinus angustifolius* L.**

Sandy spit between Mikri and Megali Prespa, near western end, 860 m. Dry places. 1999-05-31, Strid & al. 49169 (G). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127051 (B).

***Lupinus luteus* L.**

The records are likely to refer to cultivated or semi-naturalized plants.

***Medicago arabica* (L.) Huds.**

Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsch. 2004-05-11, Willing 126960 (B). – Grassland near the village of Lefkonas, 860 m. 2010-05-07, Fotiadis & Vrahnakis 7022 (Fo).

***Medicago monspeliaca* (L.) Trautv.**

SW Karie, Ackerrand, Acker, Wassergraben, 900 m. 2004-05-11, Willing 126895 (B). – WSW Lemos, Krautfluren zwischen Feldern, 860 m. 2004-05-11, Willing 127032 (B). – SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127055 (B).

***Medicago tuberculata* (Retz.) Willd.**

Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsch. 2004-05-11, Willing 126962 (B).

***Melilotus indicus* (L.) All.**

Lake Prespa, plain of Koula, NE of the frontier post, 860 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15765 (ATH).

***Onobrychis oxyodonta* Boiss.**

Reported by Pavlides (1985: 220) from a locality near Karie. A specimen in the Pavlides herbarium belongs to *O. alba*.

***Ornithopus compressus* L.**

C. 3 km WSW of the village of Lemos, near shore of lake Megali Prespa, 860 m. Dry, sandy area. 1995-05-07, Strid

38911 (C). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127021 (B). – Thermophilous grassland above Agios Germanos, 1000 m. 2010-06-13, Fotiadis & Kazoglou 7104 (Fo).

***Oxytropis purpurea* (Bald.) Markgr.**

Mt Triklario (Sfika). Open, rocky calcareous slopes on summit ridge, 1600–1700 m. 2010-06-05, Strid 57132 (G, St). A rare endemic of the C Balkan Peninsula (NC Greece, FYROM and Albania).

***Pisum sativum* subsp. *biflorum* (Raf.) Soldano**

Between the lake of Mikri Prespa and the Albanian frontier, valley SE of the village of Vrondero, near place named Cave Zahariadi, 900–950 m. Rocky calcareous ground. 1975-05-09, Stamatiadou 18497 (ATH). – Mt Triklario, eastern side, along a forest road above the village of Kotas, 1000–1100 m. Gravelly road embankments in deciduous oak woodland. Sandstone. 2010-06-06, Strid 57143 (St).

***Trifolium aurantiacum* Boiss. & Spruner**

Records of this species refer to *T. aureum* Pollich.

***Trifolium campestre* Schreber**

Oddly, this common species was not listed by Pavlides (1985). There are several subsequent records from the area of PNP, from grassland, shrubland and woodland at 855–1500 m.

***Trifolium glomeratum* L.**

In thermophilous grassland above Ag. Germanos, 1100 m. 2010-06-13, Fotiadis & Kazoglou 7103 (Fo).

***Trifolium grandiflorum* Schreb.**

SW of the village of Psarades, above shore of Lake Megali Prespa, 860–900 m. Rocky limestone slopes with woodland of *Buxus sempervirens* and *Juniperus oxycedrus*. 2009-05-20, Strid 56827 (St).

***Trifolium heldreichianum* Hausskn.**

Thermophilous *Fagus* and *Quercus* forests in Pervali area, 1220–1350 m. Fotiadis & Vrahnakis (obs). – Between Karies and Lefkonas, 1000 m. 2010-07-17, Fotiadis & Vrahnakis 7248 (Fo).

***Trifolium leucanthum* M. Bieb.**

Along forest road between Psarades and Pili, near place called Pixos sheepfolds, 1020 m. Open deciduous oak

woodland and cultivated fields with many weeds. 2016-06-04, Strid 58373 (G, St).

***Trifolium lucanicum*** Guss.

Halfway between the chapel of Agios Georgios and the summit of Devas, 1200 m. Rocky limestone slopes with mixed deciduous/coniferous woodland. 2016-06-03, Strid 58332 (G, St).

***Trifolium michelianum*** Savi

NO Mikrolimni, 860 m. Bohnenfelder, Wassergraben. 1998-07-30, Willing 71445 (B). – Areas of Devas, Vrondero and Sfika. Fotiadis & Vrahnakis (obs).

***Trifolium micranthum*** Viv.

Village of Psarades, 860 m. Wet meadow by lake Megali Prespa. 2012-05-20, Strid 57373 (G, St). – In a small rivulet along the road, just above Agios Germanos village, 1070 m. 2012-06-08, Fotiadis 8914 (Fo).

***Trifolium ochroleucon*** Huds.

N of the village Ajios Germanos area, 1040 m. Dry fallow near stream. 1972-07-08, Haristos 4022 (ATH). – Same area. 2001-07-17, Schuler 1478 (Schu). – Also observed by Fotiadis & Vrahnakis in the areas of Devas, Vrondero, Lefkonas and Daseri.

***Trifolium pannonicum*** Jacq.

Reported by Pavlides (1985: 222) from Lemos-Mileonas. A specimen in the Pavlides herbarium belongs to *T. vesiculosum* (see below).

***Trifolium patens*** Schreb.

3 km SSW of Andartiko, 950 m. Dry grassy meadows and open deciduous scrub over granite, by a stream. 1998-06-15, Strid & al. 46603 (ATH, G). – E of Mikri Prespa, NE of Oxia, 860 m, wet fields. 1998-06-27, Snogerup 15638 (LD).

***Trifolium phleoides*** Willd.

SE of Megali Prespa, SW of Lemos, 860 m, dry hillside. 1998-07-01, Snogerup 15903 (LD, UPS). – 1.5 km SW of Psarades in mixed woodland. 2010-05-10, Fotiadis & Vrahnakis (obs).

***Trifolium physodes*** M. Bieb.

SW Andartiko, 1050 m. Eichenwald, Ackerrand. 2004-05-11, Willing 126823 (B).

***Trifolium retusum*** L.

3 km SSW of Andartiko, 950 m. Dry grassy meadows

and open deciduous scrub over granite. 1998-06-15, Strid & al. 46625 (G, Kit, LD, St).

***Trifolium spumosum*** L.

Dry grassland near the village of Oxia, 900 m. Fotiadis & Vrahnakis (obs).

***Trifolium stellatum*** L.

A typical Mediterranean species. A record by Pavlides (1985: 223) needs confirmation.

***Trifolium subterraneum*** L.

Grassland above the village of Karies, 940 m. 2010-07-17, Vrahnakis (obs).

***Trifolium sylvaticum*** Gérard

3 km SSW of Andartiko, 950 m. Dry grassy meadows and open deciduous scrub over granite. 1998-06-15, Strid & al. 46624 (G, Kit, LD). – By NE shore of Lake Mikri Prespa, 855 m. Wet meadows. 2009-05-18, Strid 56812 (St).

***Trifolium velenovskyi*** Vandas

Records of this species refer to *T. aureum* Pollich.

***Trifolium vesiculosum*** Savi

Pavlides (1985: 222) reported *T. pannonicum* Jacq. from Lemos-Mileonas, but a specimen in the Pavlides herbarium belongs to *T. vesiculosum*. The latter was also reported by Pavlides and has subsequently been confirmed in the area.

***Trigonella corniculata*** subsp. ***balansae*** (Boiss. &

Reut.) Lassen

Grassland near the ruins of village Kranies, 880 m. 2010-08-08, Fotiadis & Vrahnakis (obs).

***Trigonella gladiata*** M. Bieb.

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49099 (ATH, G, Kit). – SW of the village of Psarades, above shore of Lake Megali Prespa, 860–900 m. Rocky limestone slopes with woodland of *Buxus sempervirens* and *Juniperus oxycedrus*. 2009-05-20, Strid 56826 (G, St).

***Vicia grandiflora*** Scop.

N Makrohori, 940 m. Krautiger Hang unter Laubwald. 2004-05-05, Willing 125076 (B). – N Gavros, 800 m.

Krautfluren, Eichenwald. 2004-05-07, Willing 125538 (B). – SW Andartiko, 1050 m. Eichenwald, Ackerrand. 2004-05-11, Willing 126813 (B). – Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsch. 2004-05-11, Willing 126979 (B). – Also several field notes by Fotiadis, Vrahnakis & Kazoglou from Devas, Vrondero, Pervali and above the villages of Ag. Germanos and Lefkonas.

#### ***Vicia incana* Gouan**

In austro-orientali verticum Bela Voda vocatorum. In megaphorbieta clivorum solo granitico. 2000–2050 m. 1976-08-01, Greuter 14165 (C, Gr, UPA). – Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18447 (C, M). – 2.8 km OSO Karie, Eichenwald, 1130 m. 1988-05-09 Willing 3450 (B) – Above Oxia. 1150 m. *Ostrya* woods over limestone. 1999-07-05, Schuler 99/876 (B). – Between Vrondero and the abandoned settlement of Agathoto, deciduous woodland. 2016-07-20, Bergmeier 16/123 (Be). – Records of *V. cracca* by Pavlides (1985: 224) from Mileonas, Vrondero and Karies are likely to belong here. The taxon is sometimes treated as *V. cracca* subsp. *incana* (Gouan) Rouy.

#### ***Vicia loiseleurii* (M. Bieb.) Litv.**

By Pixos sheepfolds, c. 3 km WNW of Pili, 1000 m. Open mixed woodland dominated by deciduous oaks. 2013-05-11, Strid 57691 (St).

#### ***Vicia melanops* Sm.**

Between the villages of Pili and Vrondero, 1000–1050 m. *Quercus* forest. 1975-05-08, Stamatiadou 18426 (ATH). – SO Karie, 960 m. Krautfluren mit Eichengebüsch, Ackerrand. 2004-05-11, Willing 126887 (B). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127020 (B).

#### ***Vicia narbonensis* L.**

Along main road between the villages of Karies and Lefkonas, 900 m. Patch of meadow in deciduous scrub. 2016-04-28, Strid 58308 (St). – Also reported by Oberdorfer (1954: tab. 2) from two localities just S of PNP.

#### ***Vicia oroboides* Wulfen**

A report by Pavlides (1985: 224), citing Zagariaris (1940) needs confirmation. The species is not otherwise known from Greece.

#### ***Vicia onobrychooides* L.**

Edge of *Fagus* forest above Ag. Germanos, 1300 m. 1985-05-25, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication). – Summit area of Devas, c. 2 km N of Pili, 1200–1350 m. Rocky limestone slopes and flats in opening of mixed woodland. 2010-06-04, Strid (obs and photo). – Also collected on Mt Triklario (Boutsi), just S of PNP. – 1 km S of Mikrolimni, in *Juniperus* woodland. Kazoglou & Vrahnakis (obs).

### **FUMARIACEAE**

#### ***Corydalis blanda* Schott**

Mt Kibanitsa, among boulders on open granite slopes near the summit, 1900 m. Alston & Sandwith 692 (GB). The locality is probably in Mt Varnous.

#### ***Corydalis cava* (L.) Schweigg. & Körte**

Mt Bella Voda (Kalo Nero) NW of the military post of Vigla, 1700–1800 m. *Fagus* forest. 1975-05-11, Stamatiadou 18579 (ATH, G.) – SE of the village of Agios Germanos, 1600–1700 m. Edge of *Fagus* forest over granite. 2011-05-20, Strid (obs and photo).

#### ***Fumaria kralikii* Jordan**

Reports by Pavlides (1985: 229) from Opagia and between Agioneri and Kerasies Rema need confirmation.

#### ***Fumaria rostellata* Knaf**

SW Andartiko, 1050 m. Eichenwald, Ackerrand. 2004-05-11, Willing 126805 (B). – Aj. Germanos, 1040 m. Krautfluren im Ort, steile felsige Hänge, Laubgebüsch. 2004-05-11, Willing 126997 (B). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127040 (B).

### **GENTIANACEAE**

#### ***Gentiana lutea* L. (s. l.)**

The species were recorded in Bela Voda and Moutsara area in the 1950s and since then was thought to be extinct (Pavlides 1985, Pavlides 1997a). Pavlides (op. cit.: 38) refers to “the plundering overcollection of *Gentiana lutea* in the winter of 1956 by the locals to almost complete eradication for acquiring their fleshy roots”. In 2010 Daikopoulos & Zografou found a few individuals at Giovanitsa, and in 2015 and 2016 Kazoglou & Vrahnakis found about 200

individuals near the summit of Bela Voda (Siroka valley). Because of the time of collection is not clear if they represent *Gentiana lutea* s. str. or *G. symphyandra* (Murb.) Halácsy; biogeographically the former is most likely.

## GERANIACEAE

### *Erodium acaule* (L.) Bech. & Thell.

Pavlides (1985: 205) reported this species from three localities in the Prespa area, but specimens in his herbarium appear to fall within the range of variation of *E. cicutarium* (L.) L'Hér.

### *Geranium asphodeloides* Burm. f.

Near Pixos sheepfolds 3 km WNW of Pili, 950 m. Deciduous oak woodland. 2011-05-21, Strid (obs and photo).

### *Geranium bohemicum* L.

Mt Varnous, rochers de la crête près de la frontière, 2150 m. Parent (2005: 206).

### *Geranium brutium* Gasp.

SW Karie, Feuchtwiese, krautiger Hang mit Laubgebüschen, 870 m. 2004-05-11, Willing 126919 (B). – Lemnos, Krautfluren zwischen Feldern, Laubgebüschen, 890 m. 2004-05-11, Willing 126983 (B).

### *Geranium columbinum* L.

Lake Prespa, plain of Koula, NE of the frontier post, 860 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15764 (ATH). – Mt Sfika (Triklario), 2 km S of the village of Oxia, 1250 m. By a small road in mixed deciduous woodland; limestone. 2009-05-18, Strid (obs and photo). – Woodland opening in the area of Daseri, 890 m. 2010-05-20, Fotiadis & Vrahnakis 7037 (Fo). – Open shrubland near the village of Karies, 970 m. 2010-05-07, Fotiadis & Vrahnakis 7038 (Fo).

### *Geranium dissectum* L.

Forest opening on Mt Devas, 1100 m. 2010-05-20, Fotiadis & Vrahnakis 7039 (Fo). – Just above the village of Oxia, 900 m. Pastures and edge of deciduous oak woodland. 2016-04-27, Strid (obs).

### *Geranium macrostylum* Boiss.

2 km SW of the village of Psarades, 860–900 m. Lime-stone rocks and rocky slopes near shore of lake Megali

Prespa. 1995-05-08, Strid 38962 (C). – Summit area and just W of the summit, 1250–1350 m. Rocky limestone slopes and flats in openings of deciduous oak woodland. 2009-05-17, Strid (obs and photo). – By Pixos sheepfolds WNW of Pili, 950 m. Meadow and small fields in opening of deciduous oak woodland. 2012-05-22, Strid 57391 (G, St).

### *Geranium phaeum* L.

Reported by Pavlides (1985: 206) from the vicinity of Agios Germanos. However, a specimen in his herbarium belongs to *G. reflexum* L.

### *Geranium purpureum* Vill.

*Juniperus excelsa* woodland between the island of Agios Achilleios and the village of Pili, 890 m. 2010-05-08, Fotiadis & Vrahnakis 7040 (Fo).

In the Prespa area this species appears to be less common than the closely related *G. robertianum*.

### *Geranium pusillum* Burm. f.

W Andartiko, 1000 m. Ruderalfuren, Krautfluren, Kiefernwald. 1998-07-29, Willing 71312 (B).

### *Geranium tuberosum* L.

Reported by Pavlides (1985: 207). However, a specimen in his herbarium belongs to *G. macrostylum*.

## GESNERIACEAE

### *Ramonda serbica* Pančić

Pavlides (1985: 207) cited a report by Zaganiaris from “Kalo Nero”. In the Pavlides herbarium is also a specimen collected 1985-06-29 at “Potistres-Dikorfo”. There appears to be no recent confirmation and the species is undoubtedly rare in the Prespa area.

## GLOBULARIACEAE

### *Globularia bisnagarica* L.

Mt Devas: Halfway between the chapel of Agios Georgios and the summit, 1200 m. Rocky limestone slopes with mixed deciduous/evergreen woodland. 2016-04-25, Strid 58258 (St).

### *Globularia cordifolia* L.

Pavlides listed this species in an unpublished addition to his 1985 catalogue (“Agioneri, 1300 m”). Fotiadis observed it in the Sfika area at the border of PNP.

## HALORAGACEAE

### *Myriophyllum heterophyllum* Michx.

Reports by Pavlides (1985: 208) from the Prespa area are apparently incorrect (cf. Lebreton 2013). A specimen in the Pavlides herbarium represents *M. verticillatum* L.

## HYACINTHACEAE

### *Ornithogalum brevistylum* Wolfner

National park of Mikri Limni Prespa, above Oxia, 1480 m. Dry grassland over limestone. 1999-07-05, Schuler 99/849 (B).

### *Ornithogalum comosum* L.

Records from the Prespa area need confirmation.

### *Ornithogalum divergens* Boreau

Mt Varnous, 2–3 km S-SSW of summit of Gortsas Toumba (peak 2334) on ridge WNW of place called Knoitsata, 1900–2175 m. Alpine pastures and rocky slopes. Granite and schist. 1981-06-27, Stamatiadou 22156 (ATH).

A member of the *O. umbellatum* group. Taxonomy is unsettled and all Greek records are in need of revision.

### *Ornithogalum gussonei* Ten.

Mt. Varnous, Mt Bella Voda, between place named Knoitsata and the summit of Toumba, 1950–2000 m. Stony ground with meadows. 1972-06-26, Stamatiadou 16125 (ATH) = Strid 18139 (St).

These collections were identified as *O. gussonei* by W. T. Stearn, 1988. They correspond to *O. collinum* sensu Fl. Eur., non Guss. The group is in need of critical revision.

### *Ornithogalum kochii* Parl.

Mt Bella Voda, between place named Knoitsata and the summit of Toumba, 1950–2000 m. Stony ground with meadows. 1972-06-26, Stamatiadou 16133 (ATH).

See Zahariadi, Stamatiadou & Dima (1982: 146).

### *Ornithogalum narbonense* L.

2 km SW of the village of Psarades. By a walking trail near lake Megali Prespa, mixed deciduous/evergreen woodland over limestone, 880 m. 2011-06-26, Strid (photo).

### *Ornithogalum nutans* L.

Hill by western shore of Lake Mikri Prespa just NW

of the island of Agios Achilleos, 860–900 m. Grassland with scattered deciduous shrubs. Limestone. 2016-04-25, Strid 58250 (St).

### *Ornithogalum orthophyllum* Ten.

A record by Pavlides (1985: 283) probably refers to *O. kochii*.

### *Ornithogalum pannonicum* Chaix ex Vill.

By the village of Vrondero, 1100 m. Fallow fields around the military posts. 1972-06-22, Stamatiadou 15865 (ATH). – Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15885 (ATH).

See Zahariadi, Stamatiadou & Dima (1982: 145).

## HYDROCHARITACEAE

### *Elodea canadensis* Michx.

Village of Psarades by shore of Lake Megali Prespa. Floating in 1 m deep water. 2016-08-13, Strid 58683 (G, St). – W of Lemos, Lake Megali Prespa, shallow freshwater pond next to the SE shore. 2016-08-30, Bergmeier 16/152 (Be). – Lake Megali Prespa, shore near Psarades. 2016-09-06, Bergmeier (obs).

Prespa represents the only occurrence of this introduced waterplant in Greece. It appears to have been first gathered by Zervas & Poulis, 2015-09-03, 484a (in lake Megali Prespa, very close to the border with FYROM, in the easternmost part of the Greek sector, at a depth of 2 m). See Poulis & Zervas (2017).

## HYPERICACEAE

### *Hypericum cerastioides* (Spach) N. Robson

Records by Pavlides (1985: 207) from the Prespa area are incorrect. The specimens cited belong to *H. olympicum* (Greuter 11519) and *H. rumeliacum* subsp. *apollonis* (Boiss. & Heldr.) N. Robson & Strid (Pavlides' own collections). Reference to Strid (1985) is also incorrect.

## IRIDACEAE

### *Crocus cancellatus* subsp. *mazziaricus* (Herb.) B. Mathew

By the chapel of Agios Georgios at pass on road from Koula to Psarades, 1000 m. Woodland of *Juniperus excelsa* and *Quercus trojana* over limestone. 2010-10-10, Strid 57238 (G, St). – Upper part of Mt Devas, 1300 m. Rocky

limestone slopes with open woodland of *Juniperus excelsa*, *J. oxycedrus*, *Quercus trojana*, *Acer monspessulanum*, etc. 2006-10-14, Strid (obs). – NO Pili, 870 m. Felsiger Hang, *Juniperus*. 2014-10-09, Willing 250319 (B).

### ***Crocus chrysanthus* (Herb.) Herb.**

Mt Trikario, place called Agioneri 4 km SSW of the village of Oxia, 1400 m. Patches of meadow over limestone in openings of *Fagus* forest. 2016-04-27, Strid 58304 (corms collected, cultivated in Oerbaek, Denmark, flowering January 2017).

## **JUNCACEAE**

### ***Juncus acutiflorus* Ehrh. ex Hoffm.**

Isthmus between the Prespa lakes, 860 m. Mud community on alluvial deposits. 1999-08-23, Schuler s.n. (see Schuler 2007: 237).

### ***Juncus alpinoarticulatus* Chaix**

Apparently based on Stamatiadou 13640 (ATH) which has tentatively been identified as *J. alpinoarticulatus* x *J. articulatus*.

### ***Juncus compressus* Jacq.**

Shore of lake Mikri Prespa by Mikrolimni, 855 m. 2011-06-26, Strid 57312 (G, St). – SE Pili, W shore of Lake Mikri Prespa. 2016-09-03, Bergmeier 16/223 (Be).

### ***Juncus gerardi* Loisel.**

Records by Pavlides (1985: 279) probably refer to *J. compressus*.

## **LAMIACEAE**

### ***Ajuga chamaepitys* subsp. *chia* (Schreb.) Arcang.**

Pavlides (1985: 209) reported this subspecies from Agathoto and Agioneri, but a specimen in the Pavlides herbarium belongs to subsp. *chamaepitys*.

### ***Ajuga laxmannii* (L.) Benth.**

Mt Trikario (also known as Sfika). Open, rocky calcareous slopes on summit ridge, 1600–1720 m. 2010-06-05, Strid 57127 (St). This collection renders credibility to a report by Pavlides (1985: 209) from “Oros Kalo Nero”, based on the otherwise unreliable Formánek (1892). Formánek’s record is probably from a locality north of the present national border. *A. laxmannii* has recently been reported from the Korce district in Albania (Barina & al. 2015) which represents the westernmost extension of the species.

### ***Ajuga orientalis* L.**

Pass between isthmus of Prespa and the village of Psarades, 1070 m. Woodland of *Juniperus excelsa*. 1995-05-07, Strid 38942 (C).

### ***Ballota hispanica* subsp. *macedonica* (Vandas) Strid & Kit Tan**

Reported by Pavlides (1985: 209) from the vicinity of Agios Germanos, sub nom. *B. macedonica* Vandas. However, specimens in his herbarium belong to *B. nigra*.

### ***Betonica alopecuros* L.**

Mt Bella Voda, summit of Toumba, 2050–2170 m. Stony ground with meadows and prominent rocks. 1972-06-26, Stamatiadou 16143 (ATH, C). – Also a few other collections and observations from the same or similar localities.

### ***Betonica officinalis* L.**

A report by Pavlides (1985: 214) from “Oros Kalo Nero”, based on Zaganaris (1940), sub nom. *Stachys officinalis* (L.) Trevis., has not been confirmed and may refer to *B. alopecuros*.

### ***Galeobdolon luteum* subsp. *montanum* (Pers.)**

Dvoráková

Above Ag. Germanos, 1600 m. By a small road in *Fagus* forest. Granite. 1998-06-17, Strid 46705 (ATH, G, St). – 2.5 km NW of Vigla, 1685 m, beech coppice. 2016-09-01, Bergmeier (obs). – Mt. Varnous, beech forest near treeline with *Acer heldreichii*. 2016-09-01, Bergmeier (obs).

### ***Galeopsis bifida* Boenn.**

3.5 km NW of Vigla, 1695 m, opening in beech forest. 2016-09-01, Bergmeier 16/196 (Be).

### ***Glechoma hederacea* L.**

In the village of Agios Germanos, 950 m, at base of a wall of a building. 2011-05-22, Strid 57269 (ATH, G, St).

### ***Glechoma hirsuta* Waldst. & Kit.**

Mt Varnous: *Fagus* forest and mixed *Fagus*-*Abies* forests above the village of Agios Germanos, 1630–1840 m. 2010-08-06, Fotiadis & Kazoglou 7321 (Fo).

### ***Hyssopus officinalis* subsp. *aristatus* (Godr.) Briq.**

SE of Psarades, by road ascending from the sandy spit between Prespa lakes to a small pass, 900–1000 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 2006-10-14, Strid 56179 (ATH, G, Kit, LD, St).

Very rare in Greece (Strid 2007). For occurrence in FYROM, see Teofilovski & al. (2012: 29).

**Lamium bifidum** subsp. **balcanicum** Velen.

N Gavros, 800 m. Krautfluren, Eichenwald. 2004-05-07, Willing 125510 (B). – SO Karie, 1030 m. Eichenwald, Krautfluren. 2004-05-11, Willing 126848 (B).

**Leonurus marrubiastrum** L.

Reported by Pavlides (1985: 210) from “Prespa National Park, S of Koula”. This record was subsequently doubted and the species not included in VPG (Dimopoulos & al. 2013). In fact it has been confirmed from several localities in N Greece, and Sakellarakis found a specimen in the Pavlides herbarium which indeed represents *L. marrubiastrum*.

**Melissa officinalis** L.

Ajios Germanos village area, 1040 m. 1972-07-09, Haristos 4154 (ATH).

**Mentha pulegium** L.

Sandy spit between Megali and Mikri Prespa, western end, on Megali Prespa side, 860 m. Partly swampy. 1998-08-07, Strid 47585 (ATH, G, LD, St). – SW of Lefkonas, E shore of Lake Mikri Prespa, wet grassland. 2016-07-19, Bergmeier (obs).

**Mentha suaveolens** Ehrh.

Karyes. Krautfluren am Ort, 935 m. 2014-10-09, Willing 250189 (B).

**Salvia verticillata** L.

Vrondero, village roadside. 2016-09-04, Bergmeier 16/242 (Be).

**Salvia viridis** L.

Reported from Mt Devas by Strid & al. (2012) and Mt Triklario by Fotiadis & al. (2012b). No details are available, but the records are feasible.

**Sideritis raeseri** Boiss. & Heldr.

Mt Devas, near the summit along forest road from the chapel of Agios Georgios. Rocky limestone slopes with open woodland of *Quercus trojana* and *Juniperus*. 2014-07-12, Strid (obs and photo). – Woodland opening above the village of Vrondero. 2010-08-05, Fotiadis & Vrahnikis 7328 (Fo). The population on Mt Devas is variable with some plants matching *S. rae-*

*seri* and some *S. scardica* Griseb. (the two meet in this area).

**Sideritis syriaca** L.

This species was reported by Pavlides (1985: 213), but specimens in the Pavlides herbarium belong to *Sideritis raeseri* Boiss. & Heldr.

**Stachys alpina** L.

4 km NW of Vigla, 1855 m, beech forest. 2016-09-01, Bergmeier 16/194 (Be).

**Stachys serbica** Pančić

Near the shore of Lake Megali Prespa SW of Psarades. Mixed woodland on rocky limestone slope. 2011-05-21, Strid 57270 (ATH, G, St).

**Stachys sylvatica** L.

E of Mikri Prespa, NE of Oxia, 850 m, wet fields. 1998-06-27, Snogerup 15642 (LD).

**Teucrium divaricatum** subsp. **graecum** (Čelak.) Bornm.

This was reported by Pavlides (1985: 214), but is a Mediterranean species unlikely to occur in the Prespa area. The records probably refer to *T. chamaedrys*.

**Teucrium montanum** L.

National park of Mikri Limni Prespa, above Oxia, 1400 m. Dry grassland over limestone. 1999-07-05, Schuler 99/852 (B).

**Thymus cherleroides** Vis.

Records of this species probably refer to *Th. boissieri* Halácsy which occurs on Mt Devas and Mt Triklario.

**Thymus dolopicus** Formánek

NO Pili, 870 m. Felswand. 2004-05-11, Willing 127136 (B). – Mt Triklario (also known as Sfika). Open, rocky calcareous slopes on summit ridge, 1600–1720 m. 2010-06-05, Strid 57135 (G, St).

**Thymus longicaulis** C. Presl

A specimen in the Pavlides herbarium was collected 1985-07-05, too late to be included in his 1985 publication. There are several subsequent confirmations from Mt Varnous.

**Thymus parnassicus** Halácsy

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes

with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49102 (G, Kit).

#### *Thymus pulegioides* L.

Records by Pavlides (1985: 215) are probably incorrect.

#### *Thymus striatus* Vahl

Mt Devas, summit area c. 2 km N of Pili, 1200–1350 m. Rocky limestone slopes and flats in opening of mixed woodland. 2010-06-04, Strid 57185 (G, St).

#### *Thymus thracicus* Velen.

Aufstieg zur Kawiniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion bei Pissoderi, 1950–2130 m. Quellstelle. 1982-07-08, Podlech 37403 (C). – Near isthmus of Prespa, on road to the village of Psarades, 900–950 m. Rocky limestone slopes with scrub of *Juniperus oxycedrus* and *J. excelsa*. 1995-05-07, Strid 38928 (C).

#### LEMNACEAE

##### *Lemna gibba* L.

Ag. Germanos Potamos, near mouth to Lake Megali Prespa, together with *L. minor*. 2016-08-30, Bergmeier (obs).

##### *Lemna trisulca* L.

Lake Megali Prespa, Psarades, shallow water landward of reedbeds. 2016-09-04, Bergmeier 16/236 (Be). – Lake Mikri Prespa in reedbeds at Daseri area, and W of Karies village, Kazoglu (obs).

#### LENTIBULARIACEAE

##### *Pinguicula balcanica* Casper

In the Pavlides herbarium is a specimen of *P. balcanica* from Mt Varnous, “E of Ag. Germanos, 1800 m, 30.6. 1985”. Pavlides (1985: 225) reported *P. vulgaris* L. from the same area, based on Zaganiaris (1940); this record almost certainly refers to *P. balcanica* and so does a record of *P. hirtiflora* Ten. by Quézel & Contandriopoulos (1968) from “Oros Kalo Nero”.

##### *Utricularia australis* R. Br.

Sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, 855 m. Submerged in shallow water. 1998-08-07, Strid & Kit Tan 47263 (G, St). – Grosser Prespa-See, S-Ufer, Koula, 855 m. Stillwasser-

lagune im *Phragmites australis*-Röhricht. 2011-06-25, Raus & al. 32536 (B).

The similar *U. vulgaris* L. was reported by Pavlides (1985: 225) from Vromolimni and Mikrolimni at the N and E side, respectively, of Mikri Prespa. It has subsequently been confirmed both in this area and at Fragma (S tip of Mikri Prespa).

#### *Utricularia minor* L.

Kleiner Prespa-See, S-Ende an der albanischen Grenze, Fragma, 855 m. Stillwasser im *Phragmites australis*-Röhricht. 2011-06-26, Raus 32545 (B). – Photo by Strid, same place and date.

#### LILIACEAE

##### *Fritillaria graeca* Boiss. & Spruner subsp. *graeca*

Pavlides reported (1985: 281) this subspecies from Dikorfo, but a specimen in the Pavlides herbarium represents *F. graeca* subsp. *thessala*.

##### *Fritillaria graeca* subsp. *thessala* (Boiss.) Rix

By the Greek-Albanian frontier, SW of the village of Vrontero, between the 13th and 15th pyramid, 1350–1450 m. Forest of *Quercus*, *Buxus* and *Ostrya*. 1975-05-09, Stamatiadou 18491 (ATH). – Pass between isthmus of Prespa and the village of Psarades, 1050 m. Woodland of *Juniperus excelsa*. 1995-05-07, Strid 38945 (G, St). – Mt Triklario (Sfika), summit ridge c. 5 km NNE of Kristallopigi, 1600–1700 m. Limestone. 2010-06-05, Strid (photo). – 1.5 km SW of the village of Oxia, 1150 m. Damp deciduous woodland on rocky limestone slopes. 2016-04-27, Strid (obs).

##### *Fritillaria gussichiae* (Degen & Dörf.) Rix

Zaharof F-18 (St) was collected “between Pissoderion and Antartikon”. The locality may be just inside the PNP.

Although first described as a variety of *F. graeca*, *F. gussichiae* is a distinct species endemic to mountains of the C Balkan Peninsula.

##### *Fritillaria messanensis* Raf.

Reported by Pavlides (1985: 282) from Dikorfo-Triklario, but a specimen in the Pavlides herbarium represents *F. montana* Hoppe ex W. D. J. Koch.

##### *Fritillaria montana* Hoppe ex W. D. J. Koch

By the Greek-Albanian frontier, SW of the village of Vrontero, between the 13th and 15th pyramid, 1350–1450 m. Forest of *Quercus*, *Buxus* and *Ostrya*.

1975-05-09, Stamatiadou 18490 (ATH). – Mt Devas, summit area and just W of it, 1250–1350 m. Rocky limestone slopes and flats in openings of deciduous oak woodland. 2009-05-17, Strid (obs).

***Gagea lutea* (L.) Ker Gawl.**

Above the pass E of Pissoderion, 1600–1800 m. *Fagus* forest over granite. 1989-05-11, Strid & al. 19332 (St); det. J.-M. Tison.

The locality is just outside the border of PNP, but the species is likely to occur also inside.

***Lilium candidum* L.**

Along walking trail from Mikrolimni to ruins of Kranies settlement. Rocky limestone slopes, mostly with deciduous woodland, 860–950 m. 2010-06-06, Strid (obs). – Berg Devas südl. Psarades. Offener *Quercus pubescens-Ostrya carpinifolia*-Wald über Kalkgestein, 1100 m. 2011-06-25, Raus & al. 32510 (B). – Halfway between the chapel of Agios Georgios and the summit of Devas. Mixed deciduous-evergreen woodland on rocky limestone slope, 1200 m. 2011-06-25, Strid (photo). – Just SW of the village of Mikrolimni. Steep, rocky limestone slopes above Mikri Prespa, with open deciduous woodland, 880 m. Locally abundant. 2011-06-26, Strid (photo). – 2.5 km SE Psarades, 950 m. Open deciduous oak forest. 2016-06-16, Strid (photo). – Ruins of Agathoto, in grassland, 850 m. Vrahnikis (obs and photo).

This frequently cultivated species is definitely native in the Prespa area where it was reported also by Sfikas (2000: 19).

***Lilium jankae* A. Kern.**

Pavlides (1985: 282) reported this species based on a record by Quézel & Contandriopoulos (1968) from “Kalo Nero, 2100 m”. Plants from this area are in fact rather typical *L. albanicum* (several collections by Stamatiadou, Greuter, Strid and others). See also Strid (2015: 125) for observations on *L. jankae* and other members of the *L. carniolicum* group.

**LINACEAE**

***Linum austriacum* L.**

Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria. Stony calcareous ground, 1300–1400 m. 1972-06-23, Stamatiadou 15880 (ATH, C). – Mt Devas, E to ENE of the summit. Open deciduous

oak woodland over rocky limestone slopes, 1200 m. 2011-05-21, Strid (photo).

***Linum corymbulosum* Rchb.**

Along walking trail between Psarades and Roti, 900 m Rocky limestone slopes with mixed deciduous/evergreen scrub. 2016-06-06, Strid 58415 (G, St).

***Linum elegans* Spruner ex Boiss.**

Mt Triklario: Area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes with grassland and scattered deciduous woodland. 2016-06-07, Strid 58464 (G, St).

***Linum hologynum* Rchb.**

Mt Triklario: Area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes with grassland and scattered deciduous woodland. 2016-06-07, Strid 58450 (G, St).

***Linum tenuifolium* L.**

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49130 (ATH, G, Kit). – By the chapel of Agios Georgios halfway between Koula and Psarades, 1000 m. Rocky limestone slopes with *Juniperus* woodland. 2016-06-03, Strid 58330 (St).

This species was collected already by Pavlides (“Edge of forest road, Agioneri”), but too late to be included in his 1985 publication.

**MALVACEAE**

***Abutilon theophrasti* Medik.**

Karyes. Krautfluren am Ort, 935 m. 2014-10-09, Willing 250211 (B). – Vrondero, village. 2016-09-04, Bergmeier (obs).

***Malope malacoides* L.**

Area called Ag. Pavlos near the Greek/Albanian border, 880 m. 1985-06-24, Pavlides.

Specimen seen in the Pavlides herbarium, collected too late to be included in his 1985 publication.

**MORINACEAE**

***Morina persica* L.**

Listed by Fotiadis & al. (2012b) from Mt Triklario.

No details are known but the record is feasible. The species is known from Mt Boutsi, immediately to the south (see Tan & al. 2016: 279).

## OLEACEAE

*Fraxinus angustifolia* ssp. *oxycarpa* (Willd.) Franco & Rocha Afonso  
Fagus forests in Mt Triklario, 1260 m. Fotiadis (obs).

## ONAGRACEAE

*Epilobium dodonaei* Vill.  
Just above Koula along road to the chapel of Agios Georgios, 1000 m. Rocky limestone slopes with open mixed woodland. 2012-09-12, Strid 57607 (St).

*Epilobium obscurum* Schreb.  
By the deserted village of Sfika, 1200 m. Wet spots in formerly cultivated fields. 2016-08-11, Strid 58620 (St). – Also collected near Pissoderi, just outside PNP, Strid & al. 18319 (C, G, UPA) and Snogerup 15818 (LD, UPS).

This species was reported already by Vandas (1909: 205), based on a collection by Formánek from “M. Peristeri in Macedonia”; the locality could be on either side of the present border.

## Epilobium palustre L.

Mt. Varnous, ESE of Ag. Germanos, place called Moutsara, 1950 m, seepage grassland, together with *E. veronicae*. 2016-08-31, Bergmeier 16/188 (Be). – Also reported from “Kalo Nero” by Pavlides in an unpublished addition to his catalogue of 1985.

## Epilobium veronicae Snogerup

Mt Varnous: Near source of Kaloneri stream, 1200 m. Seepage meadow over granite. 2016-08-10, Strid 58581 (G, St). – Mt. Varnous, ESE of Ag. Germanos, place called Moutsara, 1950 m, seepage grassland, together with *E. palustre*. 2016-08-31, Bergmeier 16/186 (Be).

## ORCHIDACEAE

*Anacamptis morio* (L.) R. M. Bateman, Pridgeon & M. W. Chase  
East of Lake Mikri Prespa, central road, Kale foothills. 2011-05-29, Antonopoulos (obs).

*Anacamptis papilionacea* (L.) R. M. Bateman, Pridgeon & M. W. Chase

Along forest road between Karies and Lefkonas. Opening inside deciduous forest. 2011-05-29, Antonopoulos (obs).

## *Anacamptis pyramidalis* (L.) Rich.

Along forest road between Psarades and Pili, near place called Pixos sheepfolds, 1020 m. Open deciduous oak woodland and cultivated fields with many weeds. 2016-06-04, Strid (obs).

## *Cephalanthera damasonium* (Mill.) Druce

0.8 km W Oxia. Schmaler Busch-Wiesenstreifen unter Felsen. 1988-05-09, Willing (obs). – Pili, Vrondero and by road from Agios Georgios to Devas, 1100 m (Hopp & Petridis 1987: 75). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs). – Mt Devas, 1600 m south of St. Giorgos chapel on the road to Psarades. 2011-05-29, Antonopoulos (obs).

## *Cephalanthera rubra* (L.) Rich.

Reported from the same localities as *C. damasonium* by Hopp & Petridis (loc. cit.). – A specimen in the Pavlides herbarium collected “between Agioneri and Kerasies Rema, 1200–1300 m” labeled *C. rubra* belongs to *C. damasonium*.

## *Corallorrhiza trifida* Châtel.

Two records in the Flora Hellenica Database are from the vicinity of the Vigla pass just outside PNP. The species is to be expected in *Fagus* forest also inside the borders of the park. “[confirmed by Bergmeier in 2017 above Ag. Germanos].

## *Dactylorhiza cordigera* (Fr.) Soó

Mt Bella Voda, between place named Knoitsata and the summit of Toumba. Gregarious in seepage meadow by a brook. 1972-06-26, Stamatiadou 16128 (ATH, G). – 5 km S-SSE of the peak of Kortsia Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrissi Kalo Nero. Granite. 1981-06-26, Strid & al. 18140 (St) = Stamatiadou 22053 (ATH, St). – ENE of Ag. Germanos, 1400–1600 m. Meadows over granite, wet place by a stream. 2009-05-19, Strid (obs).

## *Dactylorhiza saccifera* (Brongn.) Soó

A record in the Flora Hellenica Database is from the

Vigla pass, just outside PNP. The species has been reported from Ag. Germanos by Hopp & Petridis (1987: 76).

***Epipactis helleborine* (L.) Crantz**

Near the road from Agios Georgios to Devas, 1100m, 1987-06-14 and 1987-06-30 (Hopp & Petridis 1987: 75). – Near road to Agioneri, 1050m. 1987-07-16 (loc. cit.).

Reported as *E. persica* (Soó) Hausskn. ex Nannf. Records of *E. persica* from the Prespa area and elsewhere in NW Greece may refer either to *E. helleborine* or to *E. persica* subsp. *exilis* (P. Delforge) Kreutz.

***Epipactis microphylla* (Ehrh.) Sw.**

Along walking trail from Mikrolimni to ruins of Kranies settlement. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

***Epipogium aphyllum* Swartz.**

Mt Varnous: Mixed forest of *Fagus* and *Abies* above the village of Agios Germanos, 1670 m. 2010-08-06, Fotiadis, Vrahnakis & Kazoglou 7992 (Fo).

Rare in Greece, with scattered localities in mountains of the northern mainland and a somewhat dubious record from W Kriti.

***Himantoglossum jankae* Somlyay, Kreutz & Óvári**

Near Vrondero, 1300 m. 1985-05-29, Pavlides s.n. (specimen seen in Pavlides herbarium, collected too late to include in 1985 publication). – 2 km SW of the village of Psarades, 880 m. By a walking trail near lake Megali Prespa, mixed deciduous/evergreen woodland over limestone. 2011-06-26, Strid (obs and photo).

***Limodorum abortivum* (L.) Sw.**

*Quercus* forests above the village of Lefkonas, 1050 m. Fotiadis & Vrahnakis (obs). – East of Lake Mikri Prespa, central road, Kale foothills. 2011-05-29, Antonopoulos (obs).

***Listera ovata* (L.) R. Br.**

Mt Varnous: *Fagus* forests above the village of Ag. Germanos, 1690 m. Fotiadis & Kazoglou (obs).

***Neotinea ustulata* (L.) R. M. Bateman, Pridgeon & M. W. Chase**

Mt Devas, summit area and just W of the summit, 1250–1350 m. Rocky limestone slopes and flats in openings of deciduous oak woodland. 2009-05-17, Strid (obs and photo).

***Ophrys apifera* Huds.**

2 km SW of Psarades along forest road to Pili, 980–1040 m. Rocky limestone slopes with mixed woodland dominated by deciduous oaks. 2016-06-04, Strid (obs and photo).

***Ophrys scolopax* subsp. *cornuta* (Steven) E. G. Camus** Prespa area, halfway between the chapel of Agios Georgios and the summit of Devas. Rocky limestone slopes with mixed deciduous/coniferous woodland. 2016-06-03, Strid (obs and photo). – Also reported by Antonopoulos (obs 2011-05-29), sub nom. *O. oestrifera*.

***Ophrys sphegodes* Mill.**

0.8 km W Oxia, 850 m. Schmaler Busch-Wiesenstreifen unter Felsen. 1988-05-09, Willing (obs – subsp. *mammosa*). – Mt Devas, Halfway between the chapel of Ag. Georgios and the summit, 1200 m. Rocky limestone ridge with open woodland of *Quercus trojana* and *Juniperus excelsa*. 2009-05-17, Strid (obs and photo – subsp. *sphegodes*).

Several forms in the *O. sphegodes* complex occur in the Prespa area. Adopting a narrow species concept, Antonopoulos (obs, 2011 and 2015) reported *O. epirotica*, *O. grammica*, *O. leucophthalma* and *O. zeusii*.

***Orchis mascula* (L.) L.**

Mt Devas, halfway between the chapel (at saddle on main road Kourla-Psarades) and the summit, 1200 m. Rocky limestone ridge with open woodland of *Quercus trojana* and *Juniperus excelsa*. 2009-05-17, Strid (obs and photo). Also observed by Antonopoulos, 2011-05-29, at the same locality.

***Orchis purpurea* Huds.**

Between the villages of Pili and Vrondero, 1000–1050 m. *Quercus* forest. 1975-05-08, Stamatiadou 18441 (ATH). – S Mikrolimni, 850 m. Wiesen am Fuss von Kalkfelsen und Laubgebüsch in den Felsen. 1988-05-09, Willing (obs). – Mt Sfika (=Triklario), just SSE the village of Oxia, 950–1050 m. Opening in deciduous oak forest. 2009-05-18, Strid (obs). – Between Psarades and Pili, 950 m. Deciduous oak woodland. 2009-05-20, Strid (obs and photo). – Near Pixos sheepfolds 3 km WNW of Pili, 900 m. Deciduous oak woodland. 2011-05-21, Strid (obs and photo). – 300 m south of St. Giorgos chapel on the road to Psarades. 2011-05-29, Antonopoulos (obs).

***Orchis quadripunctata*** Cirillo ex Ten.

1 km WSW of the village of Psarades, 900 m. Mixed deciduous-evergreen scrub 2–3 m tall, with much *Buxus sempervirens*. Rocky limestone hills. 1995-05-08, Strid 38952 (LD). – Mt Devas, halfway between the chapel (at saddle on main road Koula-Psarades) and the summit, 1200 m. Rocky limestone ridge with open woodland of *Quercus trojana* and *Juniperus excelsa*. 2009-05-17, Strid (obs and photo). – Also observed by Antonopoulos, 2011-05-29, at the same locality.

***Orchis simia*** Lam.

Halfway between the chapel (at saddle on main road Koula-Psarades) and the summit of Mt Devas. Rocky limestone ridge with open woodland of *Quercus trojana* and *Juniperus excelsa*. 2009-05-17, Strid (obs and photo). – Observed by Antonopoulos in the same area, 2011-05-29.

***Platanthera bifolia* (L.) Rich.**

Near Vrondero. 1985-05-29, Pavlides s.n. (specimen seen in the Pavlides herbarium, collected too late to be included in his 1985 publication). – Also observed by Anatonopoulos, 2011-05-29, at Psarades dirt road near Cape Roti on the way to Vrondero.

***Platanthera chlorantha* (Custer) Rchb.**

Between the villages of Pili and Vrondero, 1000–1050 m. *Quercus* forest. 1975-05-08, Stamatiadou 18441a (ATH). – Mt Devas, halfway between the chapel (at saddle on main road Koula-Psarades) and the summit, 1200 m. Rocky limestone ridge with open woodland of *Quercus trojana* and *Juniperus excelsa*. 2009-05-17, Strid (obs).

***Spiranthes spiralis* (L.) Chevall.**

In the graveyard of Psarades village, 860 m. 2016-09-28, Sakellarakis (photo).

**OROBANCHACEAE*****Euphrasia liburnica*** Wettst.

Mt Varnous, near source of Kaloneri stream, 1750–1800 m. Grassland and wet meadows over granite. 2016-08-10, Strid 58579 (St). – Mt. Varnous, ESE of Ag. Germanos, 1940 m, trails in open grassland, granite. 2016-08-31, Bergmeier 16/177 (Be).

***Lesquerelia syriaca*** Boiss. & Reut.

Prespa area, between Mikrolimni and Oxia, 920 m.

Reported by Greuter (1987: 253), based on a collection by Pavlides, seen and confirmed by Greuter.

***Macrosyringion glutinosum* (M. Bieb.) Rothm.**

Mt Varnous, SE of Ag. Germanos, 1800 m. Subalpine grassland over granite. 2012-09-13, Strid 57622 (St).

***Melampyrum arvense* L.**

By the village of Vrondero, 1100 m. Fallow fields around the military posts. 1972-06-22, Stamatiadou 15875 (ATH, C).

***Melampyrum heracleoticum* Boiss. & Orph.**

Halfway between the chapel of Agios Georgios and the summit of Devas, 1200 m. Mixed deciduous-evergreen woodland on rocky limestone slope. 2011-06-25, Strid 57306 (St) = Raus 32509 (B). – Mt Devas, near the summit along forest road from the chapel of Agios Georgios, 1200–1300 m. Rocky limestone slopes with open woodland of *Quercus trojana* and *Juniperus*. 2014-07-12, Strid 58095 (G, St).

***Odontites luteus* (L.) Clairv.**

Near the village of Oxia, 880 m. Open deciduous woodland. 2016-08-11, Strid 58599 (St). – Sterile specimens but unmistakable on the linear leaves.

***Orobanche elatior* Sutton**

Halfway between the chapel of Agios Georgios and the summit of Devas, 1200 m. Rocky limestone slopes with mixed deciduous/coniferous woodland. 2016-06-03, Strid (photo).

***Orobanche gracilis* Sm.**

Above Agios Germanos, 1300 m. 2015-07-02, photo by M. Malakou.

***Orobanche lutea* Baumg.**

A record by Pavlides (1985: 228) needs confirmation.

***Orobanche paniculata* Beck**

Mt Bella Voda, 1950–2100 m. Stony, treeless area with *Juniperus* and *Vaccinium myrtillus*. Parasitic on *Knautia magnifica*. 1972-06-25, Stamatiadou 16035 (ATH).

***Pedicularis brachyodonta* subsp. *grisebachii***

(Wettst.) Hayek

In latere meridionale montis Gavran montium Varnous (Kalo Nero), 2200–2300 m. In pratis alpinis, clivis

saxosis et rupestribus, solo granitico. 1976-08-03, Greuter 14245 (C).

***Pedicularis graeca* Bunge**

2–3 km S-SSW of summit of Gortska Toumba (peak 2334) on ridge WNW of place called Knoitsata. Alpine pastures and rocky slopes. Granite and schist, 1900–2175 m. 1981-06-27, Stamatiadou 22163 (ATH). – Strid & al. (2012) cited this species also from Mt Devas, but no details are available.

***Pedicularis leucodon* Griseb.**

Mt Bella Voda, summit of Toumba, 2050–2170 m. Stony ground with meadows and prominent rocks. 1972-06-26, Stamatiadou 16153 (ATH). – In latere meridionale montis Gavran montium Varnous (Kalo Nero), 2200–2300 m. In pratis alpinis, clivis saxosis et rupestribus, solo granitico. 1976-08-03, Greuter 14247 (C, G). – 2 km NE of the summit of Kalo Nero, 1850–1950 m. Rather dry alpine grassland. Granite. 1981-06-27, Strid & al. 18193 (B, C, G).

***Phelipanche mutelii* (F. W. Schultz) Pomel**

Along walking trail between Psarades and Roti, 900 m. Rocky limestone slopes with mixed deciduous/evergreen scrub. Parasitic on *Silene parnassica*. 2016-06-06, Strid 58414 (St).

***Phelypaea boissieri* (Reut.) Stapf**

This spectacular species occurs in pastures near the summit of Mt Devas where it was discovered c. 1990, apparently by several persons independently. On 24.5. 2011, Andrea Bonetti found it at somewhat lower elevation on Mt Devas, by a viewpoint from which the pelican colonies in Vromolimni are easily seen. There are a few localities in FYROM where it was discovered already in 1916 and still occurs (Stevanović, pers. comm.). It has recently been found also in S Albania, including one locality on Mt Gramos close to the Greek border (Barina & al. 2015). The population on Mt Devas comprises c. 200 individuals; it is probably parasitic on roots of *Centaurea salonitana* Vis.

In VPG (Dimopoulos & al. 2013) the Greek plant was called *Phelypaea coccinea* (M. Bieb.) Poir., following Flora of Turkey (7: 2, 1982) where *Ph. boissieri* was listed as a synonym of *Ph. coccinea*. However, Cullen (2010) and Barina & al. (2015) regarded them as separate species, based on differences in corolla lobes and anthers. Cullen recognized three species: *Ph. coccin-*

*ea* in the Caucasus, the Crimea and possibly N Iran, *Ph. tournefortii* Desf. in E Turkey and adjacent Georgia and Armenia, and *Ph. boissieri* in S and E Turkey and adjacent NW Iran as well as the Balkans. Thus, all European plants are referable to *Ph. boissieri*.

***Rhinanthus mediterraneus* (Sterneck) Adamović**  
Grosser Prespa-See, SO-Ufer W Lemos, 855 m. Stillwasserbereich im *Phragmites australis*-Röhricht. 2011-06-25, Raus 32531 (B). – Same site and date, Bergmeier 11/319 (Be).

***Rhinanthus ovifugus* Chabert**

Reported by Pavlides (1985: 252), based on a record by Quézel & Contandriopoulos (1968) from Pissoderi, just outside the PNP. *R. ovifugus* is a species of the Alps, very unlikely to occur in Greece; four other species of *Rhinanthus* have been reported from nomos Florinis.

***Tozzia alpina* subsp. *carpathica* (Wol.) Dostál**

6 km S of the peak of Kortska Toumba (= peak 2334), 1800–1850 m. Shady place by a stream at upper edge of *Fagus* forest. Granite. 1981-06-27, Strid & al. 18184 (B, EGE, G, KOR, St). – Same area. 2016-06-05, Strid 58386 (G, St).

## PAPAVERACEAE

***Papaver albiflorum* (Elkan) Pacz.**

Lacus Prespa in collibus prope Viologikos Stathmos. 1979-05-23, Artelari & Zouridis 344 (UPA). – 1 km WSW of the village of Psarades, 900 m. Mixed deciduous/evergreen scrub 2–3 m tall, with much *Buxus sempervirens*. Rocky limestone hills. 1995-05-08, Strid 38956 (C).

***Papaver apulum* Ten.**

Lacus Prespa in collibus prope Viologikos Stathmos. 1979-05-23, Artelari & Zouridis 314 (UPA).

***Papaver dubium* subsp. *lecoqii* (Syme) Lamotte**

SO Psarades, 860 m. Felswand, Krautfluren am See. 2004-05-11, Willing 127123 (B). – Mt Sfika (Triklarion), 1.5 km SSW of the village of Oxia, 1200 m. Mixed deciduous woodland over limestone. 2009-05-18, Strid (obs and photo).

***Papaver pinnatifidum* Moris**

A report by Pavlides (1985: 229) from Mt Triklario is probably incorrect.

**PLANTAGINACEAE*****Plantago albicans* L.**

A report by Pavlides (1985: 230) from “Gofilos-Mazi” is out of range and probably incorrect.

***Plantago altissima* L.**

Records of this species probably refer to *P. lanceolata*.

***Plantago crassifolia* Forssk.**

A report by Pavlides (1985: 230), “between Perivolaki and Dinas” is probably incorrect.

***Plantago major* subsp. *intermedia* (Gilib.) Lange**

Ajios Germanos village area, 1040 m. 1972-07-09, Haristos 4156 (ATH). – Psarades, trampled site above the pier. 2016-09-06, Bergmeier 16/284 (Be). – Also observed recently by Fotiadis in the Sfika and Vrontero areas.

***Plantago media* L.**

OSO Karye, 1040 m. Sandige Hänge, Eichenbuschwald. 1998-07-30, Willing 71396 (B).

***Plantago subulata* L.**

As used by Greek authors, including Pavlides (1985: 230), this name refers to *P. holosteum*.

**PLUMBAGINACEAE*****Armeria canescens* (Host) Boiss.**

Forest opening between Provolos and Ntina, 1400 m. 1985-06-25, Pavlides (specimen seen in the Pavlides herbarium, collected too late to be included in his 1985 publication). – Several subsequent confirmations from Mt. Varnous.

This is probably the only species of *Armeria* in the Prespa area. Records of *A. rumelica* Boiss. and *A. undulata* (Bory & Chaub.) Boiss. are likely to refer to *A. canescens*.

***Goniolimon tataricum* (L.) Boiss.**

Lake Prespa, near and SW of the frontier post of Koula, 850–900 m, stony calcareous ground. 1972-06-22, Stamatiadou 15821 (ATH). – S of Megali Prespa, Ag. Georgios on the hill SE of Psarades, 1000–1050 m. 1998-06-27, Snogerup 15659 (LD). – From the last-mentioned locality also Strid 57231 (St), Strid 57304 (St) and Raus 32501 (B).

Plants of Snogerup 15659 have densely short-pubescent bracts, thus matching *G. tataricum*. Some other plants from the same area have glabrous bracts and have been keyed out as *G. dalmaticum* (C. Presl) Rchb. f. According to Buzurović & al. (2013, 2016) the latter is endemic to Croatia and grows on saline ground near the sea, whereas *G. tataricum* is Pontic-Mediterranean and grows in xerophilous pastures in hilly regions. All Greek records of *G. dalmaticum* are likely to refer to *G. tataricum*.

**POACEAE*****Aegilops biuncialis* Vis.**

Just NW of western end of sandy spit between Mikri and Megali Prespa. Rocky limestone slopes with woodland of *Juniperus excisa* and *Quercus trojana*. 1999-05-31, Strid & al. 49123 (G). – Berg Devas südl. Psarades. Antennen-Station am Gipfel, *Stipa*-reiche Trockenrasen über Kalkgestein, 1350 m. 2011-06-25, Raus & al. 32517 (B).

Pavlides reported *Aegilops lorentii* Hochst. which is probably a synonym of *A. biuncialis*.

***Agrostis castellana* Boiss. & Reut.**

N Prasino, 910 m. Bach, Krautfluren, einz. Laubbäume. 1998-07-29, Willing 71240 (B). – Mt Varnous: Near source of Kaloneri stream, 1750–1800 m. Shady places at upper edge of *Fagus* forest; granite. 2016-08-10, Strid 58587 (G, St).

***Aira caryophyllea* L.**

A report by Pavlidis (1985: 268) from an area east of Mikri Prespa needs confirmation.

***Alopecurus utriculatus* Sol.**

A report by Pavlidis (1985: 260) certainly refers to *A. rendlei* Eig.

***Arundo donax* L.**

A small stand (expanding very slowly over the last 15 years) is present on the margins of the road leading to the isthmus between Mikri and Megali Prespa. The stand was probably planted (rhizomes brought from S-C Greece where it is common) by a local farmer for producing sticks used in the bean cultivation of the area (Kazoglou, obs.).

***Brachypodium rupestre* (Host) Roem. & Schult.**

Between Vrondero and the abandoned village of Ag-

athoto, deciduous woodland on limestone. 2016-07-20, Bergmeier 16/117 (Be). Previously overlooked and mistaken for *B. pinnatum* which is common in the area.

***Bromus benekenii* (Lange) Trimen**

Between Oxia and the abandoned settlement of Sfika, deciduous oak woodland. 2016-09-05, Bergmeier 16/274 (Be). – Between Vrondero and the abandoned Agathoto, deciduous woodland. 2016-07-19, Bergmeier (obs).

***Bromus cappadocicus* Boiss. & Balansa**

Above Oxia. Dry grassland over limestone, 1480 m. 1999-07-05, Schuler 99/834 (B, Schu).

***Bromus commutatus* subsp. *decipiens* (Bomble & H.**

Scholz) H. Scholz

Near Vrondero, wheat field, 1090 m. 2016-07-20, Bergmeier 16/107 (Be).

Previous records of *B. secalinus* from the area likely refer to the similar *B. commutatus* subsp. *decipiens*.

***Bromus ramosus* Huds.**

4 km NW of Vigla, 1855 m, beech forest, roadbank. 2016-09-01, Bergmeier 16/195 (Be). – Mt Triklario, in *Fagus* forest, 1360 m. Fotiadis & Vrahnakis (obs). – *Alnus glutinosa* forests near mouth of Ag. Germanos river, 870 m. Fotiadis (obs).

***Bromus riparius* Rehmann**

A record from “Kalo Nero” (Pavlides 1985: 270, cited from Quézel 1969) needs confirmation. It is likely to refer to *B. cappadocicus* Boiss. & Balansa.

***Bromus rubens* L.**

Thermophilous grassland above the village of Lemos, 950–1200 m. Fotiadis & Vrahnakis (obs).

***Catapodium rigidum* (L.) C. E. Hubb.**

Koula. 1984-04-15, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication) – Lakeside road to Pili, *Juniperus* woods on limestone, 870 m. 1999-07-06, Schuler (2007: 232). – In *Juniperus* woodlands near Psarades (910 m). 2010-05-20, Fotiadis & Vrahnakis 7345 (Fo). – In thermophilous grassland above Agios Germanos village (1030 m). 2010-06-13, Fotiadis & Kazoglou 7414 (Fo).

***Crypsis alopecuroides* (Piller & Mitterp.) Schrad.**

Mikrolimni. 1984-07-13, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication).

***Cynosurus effusus* Link**

Pfad zum Gipfel des Kalo Nero. Wiesenhang, Silikat, 1480–1520 m. 1990-08-26, Pirker & al. 313 (B). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs). – Along walking trail between Psarades and Roti, 900 m. Rocky limestone slopes with mixed deciduous/evergreen scrub. 2016-06-06, Strid 58420 (St).

***Digitaria sanguinalis* (L.) Scop.**

Sandy spit between Prespa lakes, eastern end, Megali Prespa side, near Ag. Germanos stream, 855 m. 2006-10-15, Strid 56190 (ATH, G, St). – Lemos, bean field. 2016-08-30, Bergmeier 16/163 (Be). – Mikrolimni, garden. 2016-09-05, Bergmeier 16/267 (Be).

***Echinaria capitata* (L.) Desf.**

Lake Prespa, near and SW of the frontier post of Koula, 850–900 m. Stony calcareous ground. 1972-06-22, Stamatiadou 15814 (ATH).

***Elymus panormitanus* (Parl.) Tzvelev**

Between Oxia and the abandoned settlement of Sfika, deciduous oak woodland. 2016-09-05, Bergmeier 16/275 (Be).

***Eragrostis cilianensis* (All.) Janch.**

NW Andartiko, 1280 m. Straßenrand, Buchenwald. 1998-08-01, Willing 72047 (B). – Lemos, bean field. 2016-08-30, Bergmeier 16/164 (Be).

***Eragrostis minor* Host**

Lake Megali Prespa W of Lemos, sandy shore. 2016-08-30, Bergmeier 16/145 (Be).

***Eragrostis pilosa* (L.) P. Beauv.**

Sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, 855 m. Partly swampy. 1998-08-07, Strid & Kit Tan 47612 (G, St). – Same locality. 2006-10-15, Strid 56186 (G, St). – Ag. Germanos, bean field S of the village. 2016-09-02, Bergmeier 16/200 (Be).

***Festuca drymeja*** Mert. & W. D. J. Koch

National park of Mikri Limni Prespa, above Oxia, 1300 m. *Fagus* forest over limestone. 1999-07-05, Schuler 99/859 (B).

***Festuca hirtovaginata*** (Acht.) Markgr.-Dann.

S side of summit 2177, c. 3 km SSE of Kortska Toumba (peak 2334), 1950–2150 m. Alpine grassland dominated by *Festuca* and patches of *Vaccinium myrtillus*. Granite. 1981-06-27, Strid & al. 18226 (G, M, St).

***Festuca koritnicensis*** Hayek & J. Vetter

Mt Bella Voda, summit of Toumba, 2050–2170 m. Stony ground with meadows and prominent rocks. 1972-06-26, Stamatiadou 16149 (ATH, C). – In latere meridionale montis Gavran montium Varnous (Kalo Nero), 2200–2300 m. In pratis alpinis, clivis saxosis et rupestribus, solo granitico. 1976-08-03, Greuter 14249 (C, Gr). – 5 km S-SSE of the peak of Kortska Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18110 (C, G, M, UPA).

***Festuca pratensis*** Huds.

N of the summit of Kalo Nero, 1600 m. Along mountain road to the village of Ag. Germanos. Meadows. 1981-06-28, Strid & al. 18257 (G, St).

***Helictochloa aetolica*** (Rech. f.) Romero Zarco

Along walking trail between Psarades and Roti, 900 m. Rocky limestone slopes with mixed deciduous/evergreen scrub. 2016-06-06, Strid 58423 (G, St).

***Helictotrichon convolutum*** (C. Presl) Henrard

Between the village of Oxia and ruins of Sfika settlement, 900–1100 m. Rocky slopes in open deciduous woodland. Limestone. 2010-06-06, Strid 57154 (G, St).

***Hordelymus europaeus*** (L.) Harz

National park of Mikri Limni Prespa, above Oxia, 1200 m. *Fagus* forest over limestone. 1999-07-05, Schuler 99/863 (B). – 2.5 km NW of Vigla, 1685 m, beech coppice. 2016-09-01, Bergmeier (obs).

***Koeleria macrantha*** (Ledeb.) Schult.

Just NW of western end of sandy spit between Mikri and Megali Prespa. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*, 900–950 m. 1999-05-31, Strid & al. 49124 (ATH, G).

***Koeleria nitidula*** Velen.

Lakeside road to Pili, *Juniperus* woods on limestone, 870 m. 1999-07-06, Schuler (2007: 232). – Above Oxia. Dry grassland over limestone, 1480 m. 1999-07-05, Schuler 99/844 (B, Schu).

***Lagurus ovatus*** L.

Thermophilous grassland near the village of Oxia and around ruins of the villages of Kranies and Agathoto, 860–900 m. Vrahnakis (obs).

***Leersia oryzoides*** (L.) Sw.

Sandy spit between Megali and Mikri Prespa, eastern end, on Megali Prespa side, 855 m. Partly swampy. Locally gregarious by the lake. 1998-08-07, Strid & Kit Tan 47617 (ATH, B, G, Kit, LD, St). See Willdenowia 29: 65-66 (1999). – Near Lake Megali Prespa, tall herb riparian vegetation 0.5 km from stream mouth. 2016-08-30, Bergmeier 16/159 (Be).

This species is rare in Greece where it was first reported by Lavrentiades (1956: 83) from Lake Kerkini; see also Raus, Strid & Kit Tan (1999: 65-66) and Snogerup & Snogerup (2000: 269).

***Melica ciliata*** L. subsp. ***ciliata***

Above Ag. Germanos, place known as Potistra, 1430 m, dry grassland. 2016-08-31, Bergmeier 16/172 (Be).

Previous records of *M. ciliata* subsp. *taurica* from the area should be re-examined to verify the occurrence of both subspecies.

***Milium vernale*** M. Bieb.

SO Karie, Krautfluren mit Eichengebüsch, Ackerland, 960 m. 2004-05-11, Willing 126878 (B). – Lemos, Krautfluren zwischen Feldern, Laubgebüsch, 890 m. 2004-05-11, Willing 126982 (B). – Sandy flats between the lakes just east of Koula, 860 m. 2016-04-26, Strid (obs). – Hill by western shore of Lake Mikri Prespa just NW of the island of Agios Achilleos, 860–900 m. Grassland with scattered deciduous shrubs. Limestone. 2016-04-25, Strid 58251 (G, St). – Cultivated fields just S of the village of Vrondero, 1100 m. 2016-04-25, Strid 58262 (G, St). – Same site. 2016-07-20, Bergmeier (obs and photo).

***Paspalum distichum*** L.

Reported by Papastergiadou (1990) from shore of Megali Prespa, near Koula, sub nom. *P. paspalodes* (Michx.) Scribner.

***Phalaris aquatica* L.**

Listed by Fotiadis (2012b) from Mt Triklario. No details are available, but the record is feasible.

***Phalaris arundinacea* L.**

1–2 km E of the village of Ag. Germanos, 1050–1200 m. Gregarious by a stream. 1981-06-28, Strid & al. 18282 (B, G, KOR, St) = Stamatiadou 22202 (ATH, St).

***Phleum exaratum* Griseb. subsp. *exaratum***

3 km SSW of Andartiko, 950 m. Dry grassy meadows and open deciduous scrub over granite. 1998-06-15, Strid & al. 46627 (ATH, G, LD). – Along walking trail between Psarades and Roti, 900 m. Rocky limestone slopes with mixed deciduous/evergreen scrub. 2016-06-06, Strid 58417 (G, St). – Near Vrondero, wheat field, 1090 m. 2016-07-20, Bergmeier 16/110 (Be).

***Phleum hirsutum* Honck.**

Abandoned fields and grassland, Koula-Lemos. 1985-05-22, Pavlidis (specimen seen in the Pavlidis herbarium, collected too late to be included in his 1985 publication).

***Phleum nodosum* L.**

Between Lefkonas and Lake Mikri Prespa, dry pasture. 2016-07-19, Bergmeier (obs).

***Phleum subulatum* (Savi) Asch. & Graebn.**

Along forest road between Psarades and Pili, near place called Pixos sheepfolds, 1020 m. Open deciduous oak woodland and cultivated fields with many weeds. 2016-06-04, Strid 58351 (G, St).

***Piptatherum coerulescens* (Desv.) P. Beauv.**

Edges of *Quercus* forest at Mileona, 850–900 m. Pavlidis (specimen seen in the Pavlidis herbarium, apparently collected too late to be included in his 1985 publication). – Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49129 (ATH, G). – Between Vrondero and the abandoned village of Agathato, deciduous scrub on calcareous rock near the cave. 2016-07-20, Bergmeier 16/119 (Be).

***Piptatherum holciforme* (M. Bieb.) Roem. & Schult.**

Near the village of Pili, 900 m. Rocky calcareous slopes

in deciduous oak woodland. 2010-06-04, Strid 57123 (G, St). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs). – Between the village of Oxia and ruins of Sfika settlement, 900–1100 m. Rocky slopes in open deciduous woodland. Limestone. 2010-06-06, Strid 57153 (G, St). – Along road from Koula to the chapel of Agios Georgios, 900–950 m. Rocky limestone slopes with mixed deciduous/evergreen woodland. 2010-06-08, Strid (obs and photo). – Above Mikrolimni, deciduous woodland. 2011-06-26, Bergmeier 11/328 (Be).

***Poa alpina* L.** was reported by Pavlidis in an unpublished addition to his 1985 catalogue. The record may refer to *P. thessala* Boiss. & Orph. which is likely to occur on Mt Varnous, although there are no confirmed records.

***Poa cenisia* All.**

Reported by Pavlidis (1985: 276) from “Kalo Nero”, based on Zaganiaris (1940). Needs confirmation.

***Poa compressa* L.**

Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsche. 2004-05-11, Willing 126963 (B).

***Poa glauca* Vahl**

Reported by Pavlidis (1985: 276) from “Kalo Nero”, based on Zaganiaris (1939). Needs confirmation.

***Poa hybrida* Gaudin**

4 km NW of Vigla, 1855 m, beech forest. 2016-09-01, Bergmeier 16/197 (Be).

***Poa media* Schur**

S. side of summit 2177. C. 3 km SSE of Kortsia Toumba (peak 2334), 1950–2150 m. Alpine grassland dominated by *Festuca* and patches of *Vaccinium myrtillus*. Granite. 1981-06-27, Strid & al. 18227 (G, St).

***Polypogon monspeliensis* (L.) Desf.**

In den Großen Prespa-See aufgeschütteter Damm, am Damm zwischen den beiden Prespa-Seen, 860 m. 2009-08-05, Gregor & Meierott 5794 (FR).

***Polypogon viridis* (Gouan) Breistr.**

Sandy spit between Megali and Mikri Prespa, western end, on Megali Prespa side, 855 m. Partly swampy. 1998-08-07, Strid & Kit Tan 47589 (ATH, G, Kit, LD).

***Rostraria cristata* (L.) Tzvelev**

Reported from Mt Devas by Strid & al. (2012) and Mt Triklario by Fotiadis & al. (2012b). No details are available, but the records are feasible.

***Secale strictum* (C. Presl) C. Presl**

1–2 km E of the village of Ag. Germanos, 1050–1200 m. Mountain road by a stream. 1981-06-28, Strid & al. 18283 (B, C, G). – Above Vigla, along road to the windmills, 1600 m. Locally gregarious along road in *Fagus* forest. 2014-07-13, Strid (obs and photo).

***Sesleria caerulea* (L.) Ard.**

Pavlides (1985: 277) reported this species from Triklario. It is not otherwise known in Greece and the record is likely to refer to *S. robusta*.

***Sesleria robusta* Schott, Nyman & Kotschy**

Mt Triklario: Place called Agioneri 4km SSW of the village of Oxia, 1400 m. Meadow with rocky limestone outcrops in opening of *Fagus* forest. 2016-04-27, Strid 58299 (G, St).

***Setaria pumila* (Poir.) Roem. & Schult.**

NW Platy, 880 m. Krautfluren an Maisfeld, Wassergraben. 2014-10-09, Willing 250286 (B). – Ag. Germanos, below the village. Garden and bean field. 2016-09-02, Bergmeier 16/201 (Be).

***Setaria verticillata* (L.) P. Beauv.**

W Pisoderi, 1430 m. Sandhaufen, sandiger Parkplatz. 2014-10-10, Willing 250517 (B). – Lemos, bean field. 2016-08-30, Bergmeier 16/162 (Be). – Milionas, bean field. 2016-09-06, Bergmeier 16/277 (Be).

***Setaria viridis* (L.) P. Beauv.**

Near the village of Oxia, 880 m. Damp spot in a bean field. 2016-08-11, Strid 58602 (St). – Lemos, village. 2016-09-06, Bergmeier 16/293 (Be).

***Stipa holosericea* Trin.**

Devas, südwärts unterhalb der Antennen-Station am Gipfel, 1340 m. *Stipa*-reiche Trockenrasen über Kalkgestein. 2011-06-25, Raus & al. 32524 (B).

***Vulpia muralis* (Kunth) Nees**

WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127031 (B).

**POLYGALACEAE*****Polygala nicaeensis* subsp. *mediterranea* Chodat**

Mt Varnous, 5 km S-SSE of the peak of Kortsia Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18124 (ATH, G). – 4–4.5 km N of the Vigla military post, E of the summit of Bella Voda (Kalo Nero), 1900–2100 m. Alpine meadow with *Vaccinium myrtillus* and *Juniperus communis*. Granite. 1981-06-27, Stamatiadou 22120 (ATH, St). – 2 km SW of the village of Psarades, 860–900 m. Limestone rocks and rocky slopes near shore of lake Megali Prespa. 1995-05-08, Strid 38968 (C).

**POLYGONACEAE*****Fallopia dumetorum* (L.) Holub**

Ag. Germanos, village. 2016-09-02, Bergmeier 16/204 (Be).

***Fallopia japonica* (Houtt.) Ronse Decr.**

Ag. Germanos, roadside immediately W of the village towards Lemos, several small clonal colonies. 2016-09-02, Bergmeier 16/202 (Be). Not included in Dimopoulos & al. (2013), but apparently fully established locally.

***Persicaria lapathifolia* (L.) Delarbre**

Lake Megala Prespa, muddy shore of the lake, 900 m. 1932-07-03, Alston & Sandwith 1116 (subsp. *pallida* (With.) Å. Löve & D. Löve; BM, K). – Plain of Koula, NE of the frontier post, 850 m. Alluvial plain and marshy ground. 1972-06-21, Stamatiadou 15780 (subsp. *lapathifolia*; ATH, BM). – N Prasino, 910 m. Bach, Krautfluren. 1998-07-29, Willing 71223 (B). – W Andartiko, 1000 m. Ruderalfuren. 1998-07-29, Willing 71276 (B). – NO Mikrolimni, 860 m. Bohnnenfelder, Wassergraben. 1998-07-30, Willing 71431 (B). – Mikrolimni, 850 m. Ruderalfuren, Seeufer. 1998-07-30, Willing 71480 (B). – SW Lemos, 860 m. Bohnnenfelder, Wassergraben. 1998-07-30, Willing 71616 (B). – NW Platy, 880 m. Krautfluren an Maisfeld, Wassergraben. 2014-10-09, Willing 250282 (B). – Mikrolimni, lake shore. 2016-09-05, Bergmeier 16/269 (subsp. *lapathifolia*; Be).

Subsp. *lapathifolia* is the most common subspecies in the area.

***Persicaria minor* (Huds.) Opiz**

Lake Prespa area, alluvial plain between Lemos

and Koula, 855 m. 1971-07-29, Stamatiadou 13630 (ATH). – W shore of Mikri Prespa, NW of the island of Ag. Achilleos, 855 m. Wet meadows, swamps and *Phragmites* thickets. 1985-07-21, Strid 24824 (St). – 3 km südwestl. Lemos, 855 m. Breiter Entwässerungs-kanal mit fast geschlossener *Nymphoides peltata*-Veg- etation. Wassertiefe 20 cm. 1989-08-30, Raus 13595 (B).

**Polygonum arenarium** Waldst. & Kit.

N Prasino, 910 m. Bach, Krautfluren. 1998-07-29, Willing 71216 (B). – NW Andartiko, 1280 m. Straßen- rand. 1998-08-01, Willing 72057 (B). – Area of Isthmos and Ag. Achilleos. Fotiadis (obs).

**Polygonum arenastrum** Boreau

W Andartiko, 1000 m. Ruderalfuren, Krautfluren, Kiefernwald. 1998-07-29, Willing 71322 (B). – Mikrolimni, 855 m. Ruderalfuren, Seeufer. 1998-07-30, Willing 71500 (B). – Psarades, village. 2016-09-06, Bergmeier 16/279 (Be).

**Polygonum aviculare** subsp. **neglectum** (Besser) Ar- ang.

Prespa, E of the village Lemos area, 940 m. 1972-07-08. Haristos 3979 (ATH). – In colle inter vicum Koula et pagum Psarades, 1000 m. In silva rara Juniperorum et Quercus trojanae, solo petroso calcareo. In glareosis calcareis ad marg. viae. 1976-08-02, Greuter 14203 (ATH, Gr, St). – Pili. Gemüsefelder am südlichen Ortsrand, 860 m. 1988-08-23, Raus 11466 (B). – Vromolimni, N edge of Lake Mikri Prespa, livestock fold. 2016-09-03, Bergmeier 16/206 (Be).

**Rumex aquanticus** L.

Records of this species need confirmation. At least one specimen in the Pavlides herbarium represents *R. hydrolapathum* Huds.

**Rumex cristatus** DC.

E of Mikri Prespa, NE of Oxia, 855 m, wet fields. 1998-06-27, Snogerup 15640 (LD). – Between the Prespa lakes, 3 km SW of Laimos, 855 m. Among irrigated fields. 1998-06-27, Snogerup 15670 (LD).

**Rumex kernerii** Borbás

Pili, Gemüsefelder (*Phaseolus*, *Lycopersicon*) am südlichen Ortsrand, 860 m. 1986-08-23, Raus 11462 (B). – Also several collections from the Pissoderi area just outside PNP.

**Rumex maritimus** L.

Reported by Lavrentiadis (1956: 57) from Lake Mikri Prespa. The record may refer to *R. palustris*.

**Rumex sanguineus** L.

Reports by Pavlides (1985: 233) from Vromolimni and Koula as well as a record by Babalonas & Pavlides (1989) from the eastern shore of Mikri Prespa need confirmation. No material was found in the Pavlides herbarium.

**Rumex stenophyllus** Ledeb.

NO Kotas, 860 m. Feuchte Talauen, Eichenwald, Acker. 1998-08-01, Willing 71692 (B).

The locality may be slightly outside the border of PNP.

**Rumex thrysiflorus** Fingerh.

Hag. Germanos ad orientem isthmi lacus Prespa, 900–1000 m, substr. silic. 1972-06-21, Rechinger 44965 (W). – Prespa, E of the village Lemos area, 940 m. 1972-07-08. Haristos 3903 (ATH). – Sandy spit between Mikri and Megali Prespa, near western end, 855 m. Reed swamp and other wet habitats. 1999-05-31, Strid & al. 49187 (G, Kit, St). – Villages of Ag. Germanos, 2016-09-02, Psarades, 2016-09-06, Lemos, 2016-09-06, and Plati, 2016-09-07 (all Bergmeier, obs). – E of Karies, wet habitats in Mikri Prespa, 855 m. 2007-08-04, Kazoglu (obs).

## PORTULACACEAE

**Montia arvensis** Wallr.

Seepage area above Ag. Germanos, 1200 m. 2012-05-18, Strid (photo). – Mt Varnous, 5 km ENE of Ag. Germanos, 1500–1600 m. Subalpine grassland and rocky granitic slopes above small stream. 2016-06-17, Kit Tan & al. 32214 (Kit).

This species was collected already by Formánek (see Vandas 1909: 209) at “M. Peristeri in Macedonia” (probably north of the present national border).

**Portulaca nitida** (Danin & H. G. Baker) Ricceri & Arrigoni

Psarades, margin of village, trampled site towards lake shore. 2016-09-04, Bergmeier 16/231 (Be, PAL; det. G. Domina).

This widespread microspecies of the *P. oleracea* ag- gregate (Uotila 2011) is certainly undercollected; for earlier records in Greece where it is considered native, see Danin (2011: 132).

**POTAMOGETONACEAE*****Potamogeton gramineus* L.**

This species was collected by Pavlides from Paliorema at Prodania-Lemos, 1984-07-12, apparently too late to be included in his 1985 publication.

***Potamogeton trichoides* Cham. & Schldl.**

Reported by Papastergiadou & Babalonas (1993: 142).

***Stuckenia pectinata* (L.) Börner**

S shore of lake Megali Prespa, 3 km W of Plati, 860 m. Small lagoon near the shore. 1998-07-01, Snogerup 15881 (LD). – Wetland near mouth of Ag. Germanos stream at the SE shore of Megali Prespa, 860 m. 2016-06-16, Kit Tan & al. 32191 (Kit). – Mikri Prespa, from the island of Agios Achilleios to isthmus between the two lakes. Fotiadis (obs).

**PRIMULACEAE*****Lysimachia atropurpurea* L.**

*Fagus*-*Quercus* forest openings between Perivolaki-Ntinias, 1100–1300 m. 1984-07-11, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication).

**RANUNCULACEAE*****Adonis aestivalis* L.**

Near Vrondero, wheat field, 1090 m. 2016-07-20, Bergmeier 16/112 (Be).

A nationally endangered cereal field weed. Plants in early flowering stage collected in the same area by Strid, 2016-06-04 (58264, St) were first identified as *A. flammea*, but are likely to represent *A. aestivalis*. The only other recent collection from W Greek Macedonia appears to be Willing 150077 (B), 2006-04-11, from nomos Kozanis, SW Goules, 350 m (det. S. Meyer, 2010).

***Adonis flammea* Jacq.**

Reported by Pavlides (1985: 234) from “Prespa National Park, Agioneri”, as *A. aestivalis*. However, a specimen in the Pavlides herbarium appears to represent *A. flammea* which is much more common in N Greece. – Mt Devas, *Juniperus excelsa* woodland, 870–890 m. 2010-05-21, Fotiadis 7323 (Fo).

***Anemone apennina* subsp. *blanda* (Schott & Kotschy) Nyman**

Mt Triklario: Place called Agioneri 4 km SSW of the

village of Oxia, 1400 m. Meadow with rocky limestone outcrops in opening of *Fagus* forest. 2016-04-27, Strid 58303 (St).

***Clematis viticella* L.**

2 km SW of the village of Psarades, 860 m. In shingle by shore of lake Megali Prespa. 2011-06-26, Strid (obs and photo).

***Nigella damascena* L.**

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49149 (ATH, G). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

***Ranunculus aduncus* Gren.**

Reported by Pavlides (1985: 235), based on a record from Antartiko by Lavrentiades (1956). *R. aduncus* is a species of the Alps, very unlikely to occur in the Prespa area. The record probably refers to a form of *R. sartorianus* Boiss. & Heldr.

***Ranunculus aquatilis* L.**

Records from the Prespa area probably refer to *R. trichophyllus* Chaix.

***Ranunculus bulbosus* L.**

A record from the vicinity of Agios Germanos (Pavlides 1985: 236, referring to Zaganiaris 1940) probably refers to *R. neapolitanus* Ten.

***Ranunculus demissus* DC.**

Records from the Prespa area probably refer to *R. sartorianus* Boiss. & Heldr.

***Ranunculus ficariae* Bory & Chaub.**

Reported from the vicinity of Oxia by Pavlides (1985: 236). Specimens in the Pavlides herbarium belong to *R. ficaria*.

***Ranunculus garganicus* Ten.**

Pass between isthmus of Prespa and the village of Psarades, 1050 m. Woodland of *Juniperus excelsa*. 1995-05-07, Strid 38946 (C). – Mt Sfika (=Triklario), just SSE the village of Oxia, 950–1050 m. Opening in deciduous oak forest. 2009-05-18, Strid (obs). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

The first Greek record of this amphi-Adriatic species is a collection by Spreitzenhofer from Kerkira (1877-04-11, 61; B, G-BOIS, WU), subsequently described as *R. spreitzenhoferi* Heldr. It has recently been established that the species is fairly common in NC and NW Greece, extending southwards to the island of Lefkas (20 gatherings by Strid, 15 by Willing and several by other collectors).

***Ranunculus lanuginosus* L.**

Reported by Pavlides (1985: 237) from two localities in the Prespa area. However, specimens in the Pavlides herbarium belongs to *R. polyanthemooides*.

***Ranunculus neapolitanus* Ten.**

See under *R. bulbosus*. *R. neapolitanus* has subsequently been confirmed in PNP.

***Ranunculus ophioglossifolius* Vill.**

In isthmo lacus Prespa. 1972-06-21, Rechinger 44925 (G). – Vromolimni, at northern end of Mikri Prespa, 860 m. Wet meadows. 2011-05-21, Strid (obs).

***Ranunculus oreophilus* M. Bieb.**

Reported by Pavlides (1985: 237) from Mt Varnous. However, a specimen in the Pavlides herbarium belongs to *R. sartorianus* Boiss. & Heldr.

***Ranunculus paludosus* Poir.**

Reported by Pavlides (1985: 237) from the vicinity of Koula. However, a specimen in the Pavlides herbarium belongs to *R. garganicus*.

***Ranunculus platanifolius* L.**

4–4.5 km N of the Vigla military post, E of the summit of Bella Voda (Kalo Nero), 1900–2100 m. Alpine meadow with *Vaccinium myrtillus* and *Juniperus communis*. Granite. 1981-06-27, Stamatiadou 22138 (ATH, C). – Mt. Varnous, above Ag. Germanos, 1700–1800 m, ravine in beech-fir forest. 2016-08-31, Bergmeier (obs).

***Ranunculus polyanthemooides* Boreau**

Mt Varnous, 5 km S-SSE of the peak of Kortsia Toumba (peak 2334). Meadows near a spring known as Vrisi Kalo Nero, 1800 m. Granite. 1981-06-26, Strid 18120 (B, C, G). – Same area. 2016-06-05, Strid 58385 (St). – Cave of Zacharidis, c. 1 km W of Pili, 930–1050 m, Deciduous oak woodland. 2016-06-16, Kit Tan & al. 32213 (Kit, St). – See also under *R. lanuginosus*.

***Ranunculus rionii* Lagger**

SW of Lefkonas, on the E shore of Lake Mikri Prespa, reedbed. 2016-07-19, Bergmeier 16/99 (Be).

***Ranunculus sartorianus* Boiss. & Heldr.**

Several collections from Mt Varnous where it is the most common *Ranunculus* at high altitude.

***Ranunculus velutinus* Ten.**

Lacus Prespa in collibus prope "Violikos Stathmos". 1979-05-23, Artelari & Zouridis s.n. (UPA). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

***Thalictrum foetidum* L.**

This species was reported by Pavlides (1985: 238) from the Sfika area, but a specimen in the Pavlides herbarium identified as *T. foetidum* belongs to *T. minus* subsp. *saxatile*.

***Thalictrum minus* L. subsp. *saxatile* DC.**

Just NW of western end of sandy spit between Mikri and Megali Prespa, 870 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid 49148 (G). – See also under *T. foetidum*. – Relatively common to the area of Agios Georgios and Cape of Roti. Fotiadis (obs).

## RESEDACEAE

***Reseda tymphaea* Hausskn.**

NO Pili, 870 m. Felswand, Kieferngebüsch. 1998-07-30, Willing 71591 (B).

## RHAMNACEAE

***Frangula rupestris* (Scop.) Schur**

Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid 57173 (G).

***Rhamnus cathartica* L.**

By NE shore of Lake Mikri Prespa, 855 m. At edge of wet meadow. 2009-05-18, Strid 56808 (G, St). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid 57179 (G, St).

***Rhamnus lycioides* subsp. *oleoides*** (L.) Jahand. & Maire

Reported by Pavlides (1985: 238) from the vicinity of Koula. The record is out of range and needs confirmation.

***Rhamnus saxatilis* subsp. *rhodopea*** (Velen.) Aldén

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49133 (G).

Pavlides (1985: 238) reported subsp. *saxatilis* from Mt. Devas.

**ROSACEAE*****Alchemilla alpina* L.**

A record from “Kalo Nero” by Pavlides (1985: 239, referring to Zaganiaris 1940) may refer to *A. amphiargyrea* Buser.

***Alchemilla flabellata* Buser**

Mt Varnous, 5 km S-SSE of the peak of Kortscha Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18129 (C, G, UPA).

***Alchemilla gorcensis* Pawł.**

Aufstieg zur Kiwaniza (östlicher Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi (Pissoderion), 1800–2130 m. Silikat. 1982-07-08. Lippert 18406 (M).

***Alchemilla heterophylla* Rothm.**

5 km S-SSE of the peak of Kortscha Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18160 (AAU, C, G). – By a mountain road E of the village of Ag. Germanos, 1600 m. Meadows. 1981-06-28, Strid & al. 18261 (AAU, C, G). – Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18407 (M).

***Alchemilla lanuginosa* Rothm.**

5 km S-SSE of the peak of Kortscha Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi Kalo Nero. Granite. 1981-06-26, Strid & al. 18129a (C).

***Alchemilla obtusa* Buser**

5 km S-SSE of the peak of Kortscha Toumba (peak 2334), 1700–1800 m. Meadows near a spring known as Vrisi

Kalo Nero. Granite. 1981-06-26, Strid & al. 18114 (AAU, B, C, G). – 4 km E of Agios Germanos, 1400 m. Damp meadows over granite in opening of *Fagus* forest. 2010-06-07, Strid 57165 (St). – Mt. Varnous, ESE of Ag. Germanos, place called Moutsara, 1950 m, wet grassland. 2016-08-31, Bergmeier 16/185 (Be).

***Alchemilla reniformis* Buser**

This species was reported by Pavlides (1985: 239), between Sfika and Mavrou Rachi. The record is feasible but the locality is just outside the PNP.

***Alchemilla straminea* Buser**

Mt Varnous, in cacumine Kryoneri, 2100 m, solo granitico. 1977-08-08, Phitos & Kamari 16110 (UPA).

***Alchemilla xanthochlora* Rothm.** was reported by Pavlides in an unpublished addition to his 1985 catalogue (no details available). The record is feasible but needs confirmation.

***Amelanchier ovalis* subsp. *integrifolia*** (Boiss. & Hohen.) Bornm.

*Fagus* forest, Dikorfo, 1400 m. 24-5-85, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication). – National park of Mikri Limni Prespa, above Oxia, 1150 m. *Ostrya* woods over limestone. 1999-07-05, Schuler 99/867 (B). – 2.5 km SW of the village of Oxia, 1200 m. Deciduous woodland on rocky limestone slope. 2012-05-21, Strid 57377 (G, St).

***Aphanes arvensis* L.**

Grassland south of Mikrolimni, by ruins of Kranies settlement, 860 m. Fotiadis & Vrahnakis 7213 (Fo).

***Cotoneaster parnasicus* Boiss. & Heldr.**

Ad radices or. montis Kalo Nero supra pagum Plati, 1000 m. 1973-08-03, Greuter 11524 (ATH).

***Cotoneaster tomentosus* (Aiton) Lindl.**

Pavlides (1985: 239) reported *C. nebrodensis* (a synonym of *C. tomentosus*) from the Prespa area, but specimens in his herbarium belong to *C. integrerrimus*. It is quite possible that true *C. tomentosus* occurs in the area, but there are no confirmed records. It was listed for Mt Triklario by Fotiadis & al. (2012b), with no details available. [Confirmed by Bergmeier in 2017 for Mt Triklario].

***Fragaria moschata* Duchesne**

Pavlides (1985: 240) reported this species from Kalo Nero, Dikorfo

and Elatia. It is not otherwise known in Greece, and the records need confirmation.

***Geum rivale* L.**

Reported by Pavlides (1985: 240) from Mt Varnous, Gaidouritsa, 1500 m. However, a specimen in his herbarium belongs to *G. coccineum* Sm.

***Potentilla emiliae-poppii* Nyar.**

This species was reported by Pavlides (1985: 241) from Mt Triklario just outside the PNP. A specimen in the Pavlides herbarium identified as *P. emiliae-poppii* belongs to *P. detommasii* Ten. As currently understood *P. emiliae-poppii* is endemic to Bulgaria and Romania.

***Potentilla hirta* L.**

Pavlides (1985: 241) reported this species from Triklario and Falakra. It is not otherwise known in Greece, and the records need confirmation.

***Pyrus elaeagrifolia* Pallas**

Records by Pavlides (1985: 243) refer to *P. spinosa*. In Greece *P. elaeagrifolia* is restricted to the far north east.

***Rosa agrestis* Savi**

Hag. Germanos ad orientem isthmi lacus Prespa, 900–1000 m, substr. silic. 1972-06-21, Rechinger 44968 (St). – Above Ag. Germanos, place known as Potistra, 1430 m, dry grassland. 2016-08-31, Bergmeier 16/167 (Be).

***Rosa caesia* Sm.**

A report by Pavlides (1985: 244) is probably incorrect. The species is not otherwise known in Greece.

***Rosa gallica* L.**

Reported by Pavlides in an unpublished addition to his 1985 catalogue [no details available]. The record is feasible but needs confirmation. [Confirmed by Bergmeier in 2017].

***Rosa heckeliana* Tratt.**

Aufstieg zur Kawiniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion bei Pissoderi, 1950–2130 m. Quellstelle. 1982-07-08, Podlech 37418 (St).

***Rosa pulverulenta* M. Bieb.**

Mt Triklario: Area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes with grassland and scattered deciduous woodland. 2016-06-07, Strid 58466 (G, St).

***Rosa turcica* Rouy**

Hag. Germanos ad orientem isthmi lacus Prespa, substr. silic., 900–1000 m. 1972-06-21, Rechinger 44963 (St).

***Rosa villosa* L.**

Mt Triklario: Area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes with grassland and scattered deciduous woodland. 2016-06-07, Strid 58467 (St). – Mt. Varnous, between Vigla and Ag. Germanos, *Juniperus nana* scrub. 2016-09-01. Bergmeier 16/198 (Be).

***Rubus candicans* Rchb.**

Records by Pavlides (1985: 244) are probably incorrect and referable to another species of *Rubus* ser. *Discolor*.

***Rubus sanctus* Schreb.**

SW Lemnos. Sumpfwiese, Schilf, Weidenäue, 880 m. 1998-07-30, Willing 71527 (B). – Island of Agios Achilleos in lake Mikri Prespa. Scrub near the monastery of Panagia Porphyra, 870 m. 2006-10-14, Strid (obs). – Along walking trail from Mikrolimni to ruins of Kranies settlement. Rocky limestone slopes, mostly with deciduous woodland, 860–950 m. 2010-06-06, Strid (obs).

***Rubus saxatilis* L.**

Reported by Pavlides (1985: 244). However, a specimen in his herbarium belongs to *R. idaeus* L.

***Rubus schleicheri* Tratt.**

Records by Pavlides (1985: 244) are probably incorrect.

***Sanguisorba officinalis* L.**

Reported in Mountain Flora of Greece (1: 400, 1986) from Mt Varnous, based on an observation by Strid (no details available).

***Sorbus aucuparia* L.**

4 km E of Agios Germanos, 1400 m. Damp meadows over granite in opening of *Fagus* forest. 2010-06-07, Strid (obs and photo). – Mt. Varnous, above Ag. Germanos, 1700–1800 m, margin of (beech-)fir forest. 2016-08-31, Bergmeier (obs).

***Sorbus graeca* (Spach) Lodd. ex S. Schauer (aggr.)**

2.5 km SW of the village of Oxia, 1200 m. Deciduous woodland on rocky limestone slope. 2012-05-21, Strid 57378 (St). – Mt. Varnous, E of Ag. Germanos, 2–3 km SE of place called Potistra, single trees and bushes on

grassy slope near fir forest, 1760 m. 2016-08-31, Bergmeier 16/174 (Be).

Taxonomic delimitation in the *S. graeca* complex in the Balkans is not well understood. The similar *S. aria* has also been found in the PNP. Further examination is required.

***Sorbus umbellata* subsp. *koevessii* (Pénzes) Kárpáti**

Pavlides (1985: 245) reported this subspecies from Triklario. It is not otherwise known in Greece and the record needs confirmation.

**RUBIACEAE**

***Cruciata pedemontana* (Bellardi) Ehrend.**

3 km WSW of the village of Lemos, near shore of lake Megali Prespa. Dry, sandy area. 860 m. 1995-05-07, Strid 38925 (G, St). – SO Karie, Krautfluren mit Eichengebüsch, Ackerrand, 960 m. 2004-05-11, Willing 126867 (B). – Several reports from grassland around the village of Psarades. Fotiadis (obs).

***Galium advenum* Krendl**

Just NW of western end of sandy spit between Mikri and Megali Prespa, 900–950 m. Rocky limestone slopes with woodland of *Juniperus excelsa* and *Quercus trojana*. 1999-05-31, Strid & al. 49101 (G, St).

***Galium asparagifolium* Boiss. & Heldr.**

4.5–5 km from spring known as Vrisi Kalo Nero along road to the village of Ajios Germanos, place called Ramma, 1400 m. Schist. 1981-06-28, Stamatiadou 22215 (ATH). – SE of Megali Prespa, SW of Lemos, 850 m, dry hillside. 1998-07-01, Snogerup 15904 (LD).

***Galium cinereum* All.**

A record by Pavlides (1985: 246) is certainly incorrect.

***Galium debile* Desv.**

Plain of Prespa, 1.5–2 km WSW of the village of Lemos, 855 m. Damp meadows around a small lake known as Vromolimni. 1981-06-28, Stamatiadou 22224 (ATH). – On the shore of Mikri Prespa W of Mikrolimni, 855 m. 1998-06-27, Snogerup 15635 (LD).

***Galium lucidum* All.**

A record by Pavlides (1985: 246) is certainly incorrect.

***Galium oreophilum* Krendl**

2–5 km from Pili towards Vrondero, by the hill of Ve-

lika Glavia, 950–1050 m. Forest with *Quercus*, *Fraxinus*, *Acer* and *Buxus*. Stony calcareous ground. 1972-06-22, Stamatiadou 15835 (ATH, St). – Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15916 (ATH).

***Galium pseudaristatum* Schur**

2–5 km from Pili towards Vrondero, by the hill of Veliaka Glavia, 950–1050 m. Forest with *Quercus*, *Fraxinus*, *Acer* and *Buxus*. Stony calcareous ground. 1972-06-22, Stamatiadou 15858 (ATH, St). – National park of Mikri Limni Prespa, above Oxia, 1300 m. *Fagus* forest over limestone. 1999-07-05, Schuler 99/860 (B). – Between Mikrolimni and Oxia, 900 m. Margin of deciduous woodland. 2011-06-26, Strid 57311 (St). – Between Vrondero and the abandoned settlement of Agathoto, deciduous woodland. 2016-07-20, Bergmeier 16/125 (Be). – Mt. Varnous, above Ag. Germanos, beech forest margin. 2016-08-31, Bergmeier 16/168 (Be).

***Galium tricornutum* Dandy**

NO Kotas, 900 m. Eichenwald, Feuchtwiese, Ackerrand. 2004-05-07, Willing 125633 (B). – Along forest road between Psarades and Pyli, near place called Pyxos sheepfolds, 1020 m. Open deciduous oak woodland and cultivated fields with many weeds. 2016-06-30, Strid 58367 (St). – Near Vrondero, wheat field, 1090 m. 2016-07-20, Bergmeier (obs).

***Rubia tinctorum* L.**

Vrondero, village. 2016-09-04, Bergmeier 16/244 (Be).

**RUTACEAE**

***Haplophyllum coronatum* Griseb.**

By the village of Vrondero, 1100 m. Fallow fields around the military posts. 1972-06-22, Stamatiadou 15869 (ATH, C). – Near isthmus of Prespa, on road to the village of Psarades, 900–950 m. Rocky limestone slopes with scrub of *Juniperus oxycedrus* and *J. excelsa*. 1995-05-07, Strid 38934 (G, LD). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs). – Island of Slogi (Mikri Prespa), grassland, 855 m. 2010-06-10, Fotiadis 7451 (Fo). – Near the shore of Lake Megali Prespa SW of

Psarades, 900 m. Mixed woodland on rocky limestone slope. 2011-05-21, Strid (obs and photo).

## SALICACEAE

### *Populus alba* L.

Shores of Megali Prespa, west of the village of Lemos, 860 m. A few individuals, together with *Populus nigra* and *Betula pendula*. Fotiadis & Vrahaklis (obs).

### *Salix aurita* L.

A record by Pavlides (1985: 248) probably refers to *S. cinerea*.

### *Salix lapponum* L.

A record by Pavlides (1985: 248) is certainly incorrect.

### *Salix pentandra* L.

Pavlides (1985: 239) reported this species from Agios Germanos and Stara streams. It is not otherwise known in Greece and the records need confirmation.

## SANTALACEAE

***Comandra umbellata*** subsp. *elegans* (Spreng.) Piehl  
Between the 12th and 13th pyramid of the Greek-Albanian frontier, W of the village of Vrondero, place named Vroatseria, 1300–1400 m. Stony calcareous ground. 1972-06-23, Stamatiadou 15888 (ATH, G, St). – Mt Devas: summit area c. 2 km N of Pili, 1300 m. Rocky limestone slopes and flats in opening of mixed woodland. 2010-06-04, Strid (obs). – Same locality. 2011-06-25, Raus & al. 32522 (B).

### *Thesium divaricatum* Mert. & W. D. J. Koch

National park of Mikri Limni Prespa, above Oxia, 1480 m. Dry grassland over limestone. 1999-07-05, Schuler 99/853 (B).

## SAXIFRAGACEAE

### *Saxifraga bulbifera* L.

N Andartiko, 1100 m. Krautfluren, Laubwald, Ackerrand. 2004-05-07, Willing 125693 (B).

### *Saxifraga carpetana* subsp. *graeca* (Boiss. & Heldr.)

D. A. Webb

Between the villages of Pili and Vrondero, 1000–1050 m. *Quercus* forest. 1975-05-08, Stamatiadou 18438 (ATH). – SW Andartiko, 1050 m. Eichenwald,

Ackerrand. 2004-05-11, Willing 126804 (B). – Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsch. 2004-05-11, Willing 126956 (B). – Mt Devas, summit area and just W of the summit. Rocky limestone slopes and flats in openings of deciduous oak woodland. 2009-05-17, Strid (obs and photo). – Just S of the village of Agios Germanos, 1000 m. Dry meadow. 2011-05-21, Strid (obs and photo).

### *Saxifraga exarata* Vill.

A record by Pavlides (1985: 250) probably refers to *S. pedemontana* subsp. *cymosa* Engl.

### *Saxifraga scardica* Griseb.

A record in MFG (1: 374, 1986) is from Mt Boutsi just S of PNP.

### *Saxifraga sempervivum* C. Koch

A record from Mt Trikario by Pavlides (1985: 250) refers to *S. federicia-augusti* subsp. *grisebachii* (Degen & Dörfel.) D. A. Webb.

## SCROPHULARIACEAE

### *Scrophularia nodosa* L.

Aj. Jermanos, 1040 m. Krautfluren im Ort, steile felsige Hänge, Laubgebüsch. 2004-05-11, Willing 127002 (B).

### *Verbascum blattaria* L.

An unprecise record in Pavlides (1985: 253, based on Formánek) is feasible but needs confirmation.

### *Verbascum eriophorum* Godr.

Reported from Mt Trikario by Fotiadis & al. (2012b). No details are available, but the record is feasible.

### *Verbascum flavidum* (Boiss.) Freyn & Bornm.

Mt Devas, just E of the summit. Mixed woodland on rocky limestone slope. 2012-05-21, Strid 57384 (St).

### *Verbascum gloeotrichum* Hausskn. & Heldr.

Sandy spit between Mikri and Megali Prespa, near western end, 855 m. Dry places. 1999-05-31, Strid & al. 49180 (Kit, St).

### *Verbascum nigrum* L.

*Quercus* woodland in the upper part of Mt Devas, 1250–1350 m. Fotiadis & Vrahaklis (obs).

### *Verbascum pulverulentum* Vill.

Records by Pavlides (1985: 253) need confirmation.

***Verbascum sinuatum* L.**

Mt Devas, halfway between the chapel (at saddle on main road Koula-Psarades) and the summit, 1200 m. Rocky limestone ridge with open woodland of *Quercus trojana* and *Juniperus excelsa*. 2012-05-21, Strid (photo).

***Verbascum thapsus* L.**

A record by Pavlides (1985: 253) is probably incorrect.

**SOLANACEAE*****Petunia ×hybrida* (Hook.) Vilm.**

Mikrolimni, village. 2016-09-05, Bergmeier 16/260 (Be).

Casually occurring as an escape from ornamental flowerbeds. The nomenclature and status of the introduced plants in Europe is unsettled.

***Solanum elaeagnifolium* Cav.**

Koula. See Babalonas & Pavlides (1989). – Subsequently observed by Kazoglou in flowerbeds of a gym east of the isthmus between the two lakes. This species is spreading aggressively along roads in N Greece, having been first introduced in Thessaloniki around 1940. It is apparently still rare in PNP.

***Solanum physalifolium* Rusby**

Karyes. Krautfluren am Ort, 935 m. 2014-10-09, Willing 250207 (B). – Lemos, bean field. 2016-08-30, Bergmeier 16/165 (Be).

Common as a bean field weed. Plants seen are referable to var. *nitidibaccatum* (Bitter) Edmonds.

***Solanum villosum* Mill. subsp. *villosum***

Psarades, village green. 2016-09-06, Bergmeier 16/278 (Be).

**SPARGANIACEAE*****Sparganium emersum* Rehmann**

Records cited by Pavlides (1985: 285) probably refer to *S. erectum*.

**THYMELAEACEAE*****Daphne laureola* L.**

This species occurs in the Prespa area according to a dot map in Boratyński, Browicz & Zieliński (1992: 91). No details are available, but the record is feasible.

***Daphne oleoides* Schreb.**

Mt Triklario: Area called Agioneri at northern part of summit area, 1550–1740 m. Rocky limestone slopes

with grassland and scattered deciduous woodland. 2016-06-07, Strid 58460 (St).

***Thymelaea passerina* (L.) Coss. & Germ.**

Village of Vrondero, near the military post, 1100 m. Semi-cultivated fields and openings in woodland. 1985-07-20, Stamatiadou 22885 (ATH).

**TILIACEAE*****Tilia platyphyllos* Scop.**

Between the village of Oxia and ruins of Sfika settlement, 900–1100 m. Rocky slopes in open deciduous woodland. Limestone. 2010-06-06, Strid 57152 (G, St).

***Tilia rubra* DC.**

Between Vrondero and the abandoned village of Agathoto, deciduous woodland. 2016-07-20, Bergmeier 16/130 (Be). – Between Oxia and the abandoned settlement of Sfika, deciduous oak woodland. 2016-09-05, Bergmeier 16/273 (Be).

Records of the similar *T. cordata* from the area are questionable and should be re-examined.

**VALERIANACEAE*****Valeriana italica* Lam.**

1 km WSW of the village of Psarades, 900 m. Mixed deciduous/evergreen scrub 2–3 m tall, with much *Buxus sempervirens*. Rocky limestone hills. 1995-05-08, Strid 38955 (C). – Along walking trail from Mikrolimni to ruins of Kranies settlement, 860–950 m. Rocky limestone slopes, mostly with deciduous woodland. 2010-06-06, Strid (obs).

***Valerianella costata* (Steven) Betcke**

Reported by Pavlides (1985: 262) from the shores of Lake Mëgli Prespa. However, a specimen in his herbarium belongs to *V. carinata* Loisel.

***Valerianella discoidea* (L.) Loisel.**

SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127065 (B).

***Valerianella pumila* (L.) DC.**

Along walking trail from Psarades to Cape Roti, 860–900 m. Rocky limestone slopes with mixed scrub including abundant *Buxus sempervirens*. 2016-04-26, Strid 58272 (St).

***Valerianella turgida* (Steven) Betcke**

SO Karie, 960 m. Krautfluren mit Eichengebüsch, Ackerrand. 2004-05-11, Willing 126868 (B). – Mikrolimni, 860 m. Krautfluren am See. 2004-05-11, Willing 126948 (B). – WSW Lemos, 860 m. Krautfluren zwischen Feldern. 2004-05-11, Willing 127022 (B).

**VERONICACEAE*****Digitalis ferruginea* L.**

Mt Varnous, above Vigla pass along road to the windmills, 1600 m. Road embankment in *Fagus* forest. 2016-08-01, Strid (obs).

***Digitalis lanata* Ehrh.**

A record by Pavlides (1985: 250) needs confirmation. A specimen in the Pavlides herbarium is very young and not possible to determine with certainty.

***Digitalis viridiflora* Lindl.**

On the *Fagus* forest edge at Dikorfo-Kranias, 1600 m. 1984-06-21, Pavlides (specimen seen in the Pavlides herbarium, apparently collected too late to be included in his 1985 publication).

There are also several records from the Pissoderi area just outside the border of PNP.

***Linaria angustissima* (Loisel.) Borbás**

Records by Pavlides (1985: 251) need confirmation.

***Linaria simplex* (Willd.) DC.**

Lemos, 890 m. Krautfluren zwischen Feldern, Laubgebüsch. 2004-05-11, Willing 126984 (B). – SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127075 (B).

***Veronica anagalloides* Guss.**

SW of Lefkonas, E shore of Lake Mikri Prespa, reedbed margin. 2016-07-19, Bergmeier 16/102 (Be). – Psarades, shore of Lake Megali Prespa. 2016-09-06, Bergmeier 16/285 (Be).

***Veronica dillenii* Crantz**

N Prasino, 950 m. Ackerrand, Krautfluren. 2004-05-07, Willing 125668 (B). – SO Karie, 960 m. Krautfluren mit Eichengebüsch, Ackerrand. 2004-05-11, Willing 126890 (B). – SW Lemos, 860 m. Sandige Krautfluren. 2004-05-11, Willing 127066 (B).

***Veronica kindlii* Adamović**

A species of uncertain status, described from Mt Voras and also reported from Mt Varnous (cf. Pavlides 1985: 254).

***Veronica orsiniana* Ten.**

S of the summit of Toumba, 1900–1950 m. Stony ground with meadows between prominent rocks. 1972-06-25, Stamatiadou 16110 (ATH, G). – By the Greek-Albanian frontier, SW of the village of Vrondero, between the 13th and 15th pyramid, 1350–1450 m. Forest of *Quercus*, *Buxus* and *Ostrya*. – 5 km S-SE of the summit of Gortsas Toumba, 1700–1800 m. Damp, grassy meadows and marshes near the spring of Bella Voda (Kalo Nero). Granite. 1981-06-26, Stamatiadou 22092 (ATH) = Strid & al. 18159 (St). – Aufstieg zur Kiwaniza (östl. Vorgipfel des Kalo Nero = Bela Voda) vom Kataphygion des Alpine Club Florina bei Pissoderi, 1800–2130 m. 1982-07-08, Lippert 18421 (C, M).

***Veronica prostrata* L.**

As used by Greek authors this name refers to *V. orsiniana*.

***Veronica serpyllifolia* L.**

Several records from Mt Varnous, e.g. Strid 18128 (B, G, St) and Stamatiadou 22060 (ATH).

***Veronica verna* L.**

Greek-Albanian frontier, NW of the village of Vrondero, place named Urinta, 1150–1200 m. *Quercus* forest. 1975-05-10, Stamatiadou 18511 (ATH). – S. side of summit 2177. C. 3 km SSE of Kortsas Toumba (peak 2334), 1950–2150 m. Alpine grassland dominated by *Festuca* and patches of *Vaccinium myrtillus*. Granite. 1981-06-27, Strid & al. 18228 (B, G, LD, St). – C. 3 km WSW of the village of Lemos, near shore of lake Megali Prespa, 860 m. Dry, sandy area. 1995-05-07, Strid 38910 (C, G).

**VIOLACEAE*****Viola allchariensis* G. Beck**

Reported by Pavlides (1985: 263) from Mt Varnous. The record is feasible but needs confirmation. *V. allchariensis* is now regarded as a synonym of *V. frondosa* (Velen.) Hayek.

***Viola parvula* Tineo**

Listed from “Kalo Nero” in MFG (1: 638, 1986). No details available.

***Viola riviniana* Rchb.**

Near the windmills above Vigla pass, 1800 m. Subalpine meadows and upper edge of *Fagus* forest. Granite. 2015-05-21, Strid (obs and photo).

***Viola velutina* Formánek**

This is the most common violet on Mt Varnous (several collections), occurring both in violet and yellow forms and often in large quantity.

## Results

About 610 species of vascular plants have been added to the area. On the other hand, some records listed by Pavlides (1985) have been found to be incorrect or dubious (as specified in smaller font in the list below). As a result, the number of species of native and naturalized vascular plants now stands at 1769, as compared to the 1249 listed for the same area by Pavlides. Further exploration is certain to increase the number, possibly to nearly 2000. In the north-east the borders of the PNP cut across the large, granitic massif of Mt Varnous, and some species now recorded only just outside the borders are likely to be found also inside the park. In the south are two similar and floristically rich mountains of karstic limestone: Triklario (1749 m), which for the larger part is inside the PNP, and Boutsi (1776 m), which is outside. Several species now recorded only for Boutsi may well occur also on Triklario, e.g., *Anthyllis aurea*, *Asplenium ruta-muraria*, *Dianthus sylvestris*, *Geocaryum pindicum*, *Laserpitium siler*, *Nepeta argolica*, *Paronychia macedonica*, *Scandix macrorhyncha* and *Verbascum baldaccii*. A number of "trivial" lowland species are also certain to be added to the flora of the Prespa National Park in the future. New and excluded species records are listed below; within the three major groups (vascular cryptogams, gymnosperms and angiosperms) records are listed alphabetically according to family, genus and species. With few exceptions taxonomy and nomenclature follows Dimopoulos & al. (2013). Place names have been transliterated according to a simple, semi-phonetic system akin to what is used on Greek road signs; in direct citations the original spelling has been retained. Public herbaria are indicated by their standard abbreviations; Be, Fo, Gott, Kit, Schu and St stand for the private herbaria of Erwin Bergmeier, Georgios Fotiadis, Günter Gottschlich, Kit Tan, Andreas Schul-

er and Arne Strid, respectively. Voucher specimens cited have been seen by at least one of the authors, unless otherwise indicated.

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