

## New Floristic Records on *Monocotyledones* for the Square B10 (Özalp-Van) from Turkey\*

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### ANGIOSPERMAE

### MONOCOTYLEDONES

### POTAMOGETONACEAE

#### *Potamogeton natans* L.

Van, Özalp, east of Dorutay Village, Karasu Stream, 2058 m, 29.07.1998, F 8645

#### *P. gramineus* L.

Van, Özalp, east of Dorutay Village, Karasu Stream, 2058 m, 12.07.1998, F 8295

### ARACEAE

*Arum elongatum* Steven subsp. *detruncatum* (C.A. Meyer ex Schott) H. Riedl

Van, Özalp, Damlacık Village, steppe, 2240 m, 08.05.1997, F 2796, Ir.-Tur. element.

*A. conophalloides* Kotschy ex Schott var. *conophalloides*

Van, Özalp, Y. Balçıklı Village, rocky and stony places, 2150 m, 22.06.1998, F 7010

### LEMNACEAE

#### *Lemna trisulca* L.

Van, Özalp, around Dorutay Village, Karasu Stream, fresh pools, 2058 m, 29.07.1998, F 8658, Ir.-Tur. element.

#### *L. gibba* L.

Van, Özalp, around Dorutay Village, Karasu Stream, fresh pools, 2058 m, 29.07.1998, F 8655, Ir.-Tur. element.

#### *L. minor* L.

Van, Özalp, Y. Dönerdere Village, Üçdere, fresh pools,

2111 m, 02.06.1996, F 2748

### LILIACEAE

*Allium anacoleum* Hand.-Mazz.

Van, Özalp, around A. Dönerdere Village, rocky slopes, 2100 m, 24.06.1996, F 3266, Ir.-Tur. element., test: M. Koyuncu.

*A. flavum* L. subsp. *tauricum* (Besser ex Reichb.) Stearn. var. *tauricum*

Van, Özalp, around A. Didal area, steppe, 2200 m, 04.07.1997, F 4613, Medit. element., test: M. Koyuncu.

*A. armenum* Boiss. & Kotschy

Van, Özalp, Y. Tulgalı Village, open meadows, 2170 m, 10.06.1997, F 5866, END., Ir.-Tur. element., test: M. Koyuncu.

*A. pseudoampeloprasum* Misch. ex Grossh.

Van, Özalp, west of Yumruklu Village, rocky slopes, 2110 m, 09.06.1997, F 1905, Ir.-Tur. element., test: M. Koyuncu.

*A. atroviolaceum* Boiss.

Van, Özalp, above Damlacık Village, meadows, 2200 m, 03.06.1997, F 5777

*A. vineale* L.

Van, Özalp, Y. Tulgalı Village, alpine meadows, 2180 m, 10.06.1997, F 5865

*A. guttatum* Steven subsp. *guttatum*

Van, Özalp, Üçdere, rocky slopes, 2100 m, 02.06.1996, F 2741

*A. guttatum* Steven subsp. *sardoum* (Moris) Stearn

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Van, Özalp, Göçertepe, grassy places, 2130 m, 11.07.1996, F 2623, *Medit. Element*, det: M. Koyuncu

**A. kharputense** Freyn & Sint.

Van, Özalp, Y. Tulgali Village, grassy places, 2180 m, 10.06.1997, F 5864, *Ir.-Tur. element.*, test: M. Koyuncu.

**Scilla bifolia** L.

Van, Özalp, Y. Balçıklı Village, Çadır Hill, by melting snow, 2300 m, 09.07.1997, F 5700, *Medit. element.*

**S. siberica** Haw. subsp. **armena** (Grossh.) Mordak

Van, Özalp, Y. Balçıklı Village, by melting snow, 2339 m, 23.04.1998, F 5923, *Ir.-Tur. element.*

**Ornithogalum platyphyllum** Boiss.

Van, Özalp, Yünkuşak Village, damp places, 2280 m, 24.06.1997, F 3915, *Ir.-Tur. element.*

**Muscari comosum** (L.) Miller

Van, Özalp, above old Cumhuriyet Patrol, rocky slopes, 2000 m, 23.05.1998, F 6107, *Ir.-Tur. element.*

**M. armeniacum** Leichtlin ex Baker

Van, Özalp, Y. Tulgali Village, pastures, 2200 m, 23.05.1998, F 6163, *Ir.-Tur. element.*

**Bellevalia fominii** Woronow

Van, Özalp, east of Y. Tulgali Village, meadows, 2210 m, 10.06.1997, F 5862, *Ir.-Tur. element.*

**B. rixii** Wendelbo

Van, Özalp, above Y. Tulgali Village, rocky areas, 2200 m, 10.06.1997, F 5861, *END.*, *Ir.-Tur. element.*

**Fritillaria crassifolia** Boiss. & Huet subsp. **kurdica** (Boiss. & Noë) Rix

Van, Özalp, up to old Cumhuriyet Patrol, streamsides, 2300 m, 23.05.1998, F 6111, *Ir.-Tur. element.*

**F. minuta** Boiss. & Noë

Van, Özalp, between Y. Tulgali Village and border with Iran, by melting snow, 2280 m, 23.05.1998, F 6119, *Ir.-Tur. element.*

**F. assyriaca** Baker subsp. **assyriaca**

Van, Özalp, between Y. Tulgali Village and border with Iran, grassy places, 2280 m, 23.05.1998, F 6131

**Tulipa humilis** Herbert

Van, Özalp, around Y. Tulgali Village, steppe, 2200 m, 23.05.1998, F 6151

**T. sylvestris** L.

Van, Özalp, Bakışık Village, steppe, 2140 m, 23.05.1998, F 5959

**T. julia** C. Koch

Van, Özalp, around Bakışık Village, grassy slopes, 2118 m, 23.05.1998, F 5974, *Ir.-Tur. element.*

**Gagea gageoides** (Zucc.) Vved.

Van, Özalp, around Oymaklı Village, steppe, 2090 m, 25.06.1996, F 1793, *Ir.-Tur. element.*

**G. reticulata** (Pallas) Schultes & Schultes fil.

Van, Özalp, east of Aşkın Village, Kuştepe, steppe, 2250 m, 25.06.1997, F 4024, *Ir.-Tur. element.*

**G. uliginosa** Siehe & Pascher

Van, Özalp, west of Yavuzlar Village, damp places, 2241 m, 05.05.1997, F 1214, *Ir.-Tur. element.*

**G. helenae** Grossh.

Van, Özalp, west of Yavuzlar Village, rocky places, 2240 m, 05.05.1997, F 1218, *Ir.-Tur. element.*

**G. villosa** (Bieb.) Duby var. **hermonis** Dafni & Heyn

Van, Özalp, Y. Koçkiran Village, steppe, 2314 m, 16.06.1996, F 2448, *Ir.-Tur. element.*

**Colchicum szovitsii** Fisch. & Mey.

Van, Özalp, Yünkuşak Village, above radar, steppe, 2000 m, 24.06.1997, F 3906, *Ir.-Tur. element.*

**Merendera sobolifera** C. A. Meyer

Van, Özalp, Y. Balçıklı Village, around Ziyaret, by melting snow, 2150 m, 19.04.1998, F 5917, *Ir.-Tur. element.*

## IRIDACEAE

**Iris paradoxa** Steven

Van, Özalp, south of Gözdeğmez Village, steppe, 2180 m, 15.06.1998, F 6527, *Ir.-Tur. element.*

**I. sari** Schott. ex Baker

Van, Özalp, A. Balçıklı Village, Aliibrahim Hill, rocky slopes, 2266 m, 08.06.1997, F 1864, *END.*, *Ir.-Tur. element.*

**I. aucheri** (Baker) Sealy

Van, Özalp, Günyüzlü Village, Tapa Hill, rocky slopes, 2195 m, 19.05.1998, F 6019, *Ir.-Tur. element.*

## ORCHIDACEAE

**Orchis tridentata** Scop.

Van, Özalp, south of Şehittepe Village, grassy places,

2000 m, 10.07.1997, F 4998

**O. collina** Banks & Sol.

Van, Özalp, around Şehittepe Village, grassy places, 2215 m, 17.05.1997, F 2720

**Dactylorhiza urvilleana** (Steudel) Baumann & Künkele

Van, Özalp, A. Yorganlı Village, Dedeçayı Stream, near stream, 2110 m, 10.06.1998, F 6348

**D. osmanica** (Kl.) Soó. var. **osmanica**

Van, Özalp, north of Y. Dönerdere Village, wet meadows, 2115 m, 24.06.1996, F 3289, END., Ir.-Tur. element.

#### SPARGANIACEAE

**Sparganium erectum** L. subsp. **erectum**

Van, Özalp, around Bağrıaçık Village, stream banks, 2200 m, 29.07.1998, F 8629, Euro-Sib. element.

#### TYPHACEAE

**Typha latifolia** L.

Van, Özalp, Dorutay Village, Karasu stream, water-sides, 2058 m, 29.07.1998, F 8665

**T. laxmannii** Lepechin

Van, Özalp, around A. Tulgalı Village, Karasu stream, near Stream, 2000 m, 23.07.1997, F 5428

#### JUNCACEAE

**Juncus inflexus** L.

Van, Özalp, around Dorutay Village, damp places, 2056 m, 29.07.1998, F 8647

**J. alpinus** Vill. subsp. **alpinus**

Van, Özalp, east of Yarımağıl Village, wet places, 2250 m, 08.07.1998, F 8442

#### CYPERACEAE

**Eleocharis quinqueflora** (Hartmann) O. Schwarz

Van, Özalp, A. Koçkiran Village, meadows, 2140 m, 05.07.1997, F 4798, Ir.-Tur. element.

**Bolboschoenus maritimus** (L.) Palla var. **cymosus** (Reichb.) Kit Tan & Oteng-Yeboah

Van, Özalp, A. Balçıklı Village, Karasu Stream, stream banks, 2200 m, 04.07.1997, F 4672

**Scirpoides holoschoenus** (L.) Sojak

Van, Özalp, around A. Sağmalı Village, streamsides 2050 m, 03.07.1997, F 4567

**Carex diandra** Schrank

Van, Özalp, A. Koçkiran Village, wet places 2137 m, 05.07.1997, F 4797, Euro-Sib. element.

**C. diluta** Bieb.

Van, Özalp, east of A. Sağmalı Village, steppe, 2270 m, 03.07.1997, F 4565, Ir.-Tur. element.

#### POACEAE (GRAMINEAE)

**Elymus hispidus** (Opiz) Melderis subsp. **hispidus**

Van, Özalp, north of A. Tulgalı Village, steppe, 2113 m, 05.10.1997, F 1527

**Heteranthelium piliferum** (Sol.) Hochst.

Van, Özalp, above Yavuzlar Village, steppe, 2000 m, 26.06.1997, F 3733, Ir.-Tur. element.

**Aegilops cylindrica** Host

Van, Özalp, A. Koçkiran Village, A. Didal Hill, steppe, 2000 m, 04.07.1997, F 4619, Ir.-Tur. element.

**A. umbellulata** Zhukovsky subsp. **umbellulata**

Van, Özalp, Yumruklu Village, steppe, 2251 m, 04.07.1997, F 4596, Ir.-Tur. element.

**A. triuncialis** L. subsp. **triuncialis**

Van, Özalp, around A. Sağmalı Village, steppe, 2210 m, 03.07.1997, F 4578

**Secale anatolicum** Boiss.

Van, Özalp, east of Yarımağıl Village, rocky slopes, 2248 m, 08.07.1998, F 8400

**Psathyrostachys fragilis** (Boiss.) Nevski

Van, Özalp, Yavuzlar Village, around Veli Ziyaret Hill, steppe 2272 m, 05.05.1997, F 1241, Ir.-Tur. element.

**Hordeum bulbosum** L.

Van, Özalp, east of Y. Tulgalı Village, steppe, 2185 m, 10.07.1997, F 1412

**Taeniatherum caput-medusae** (L.) Nevski subsp. **asper** (Simonkai) Melderis

Van, Özalp, around A. Koçkiran Village, steppe, 2000 m, 04.07.1997, F 4638

**Bromus racemosus** L.

Van, Özalp, east of A. Dönerdere Village, wet meadows, 2095 m, 24.06.1996, F 3250, Euro-Sib. element.

**B. japonicus** Thunb. subsp. **anatolicus** (Boiss. & Heldr.) Pénzes

Van, Özalp, east of Yarımağıl Village, steppe, 2215 m, 08.07.1997, F 8413

**B. scoparius** L.

Van, Özalp, A. Yorganlı Village, cultivated fields, 2210 m, 26.06.1997, F 3603

**B. lanceolatus** Roth

Van, Özalp, Şehittepe Village, waste places, 2210 m, 10.07.1997, F 4983

**B. pumilio** (Trin.) P. M. Smith

Van, Özalp, east of Damlacık Village, steppe, 2243 m, 09.07.1997, F 5738

**B. sterilis** L.

Van, Özalp, above A. Sağmalı Village, waste places, 2048 m, 03.07.1997, F 4543

**B. cappadocicus** Boiss. & Bal. subsp. **sclerophyllus** (Boiss.) P. M. Smith

Van, Özalp, Damlacık Village, steppe, 2376 m, 26.06.1996, F 1773, END., Ir.-Tur. element.

**B. tomentellus** Boiss.

Van, Özalp, west of Yavuzlar Village, steppe, 2240 m, 12.07.1998, F 8220

**Helictotrichon pratense** (L.) Besser ex Schultes & Schultes fil.

Van, Özalp, Çobantaşı Mountain, mountain slopes, 2322 m, 14.08.1997, F 1246, Euro-Sib. element.

**Arrhenatherum palaestinum** Boiss.

Van, Özalp, A. Sağmalı Village, steppe, 2400 m, 03.07.1997, F 4589, E. Medit element.

**A. kotschy** Boiss.

Van, Özalp, east of Damlacık Village, Boncuk Stream Valley, steppe, 2240 m, 09.07.1997, F 5748, Ir.-Tur. element.

**Trisetum flavescens** (L.) P. Beauv.

Van, Özalp, south of Y. Balçıklı Village, meadows, 2200 m, 04.07.1997, F 4702a, Euro-Sib. Element.

**T. thospiticum** Chrtek

Van, Özalp, east of Bağrıaçık Village, steppe, 2213 m, 12.07.1998, F 8281, END., Ir. -Tur. element.

**Koeleria eriostachya** Pancic

Van, Özalp, around Şehittepe Village, meadows, 2213 m, 10.07.1997, F 4988

**Agrostis olympica** (Boiss.) Bor

Van, Özalp, east of Bağrıaçık Village, damp meadows, 2174 m, 12.07.1998, F 8277, Euro-Sib. (mt) element.

**Ag. planifolia** C. Koch

Van, Özalp, east of Bağrıaçık Village, damp meadows, 2198 m, 12.07.1998, F 8318, Ir.-Tur. element.

**Ag. stolonifera** L.

Van, Özalp, around Y. Tulgalı Village, damp meadows, 2180 m, 20.06.1996, F 1762, Euro-Sib. element.

**Zingeria pisidica** (Boiss.) Tutin

Van, Özalp, west of Yavuzlar Village, wet grass, 2235 m, 27.06.1996, F 2535, Ir.-Tur. element.

**Z. biebersteiniana** (Claus) P. Smirnow subsp. **trichopoda** (Boiss.) R. Mil.

Van, Özalp, Altınboğa Village, Mezra Stream Valley, rocky places, 2100 m, 28.06.1997, F 4371, Ir.-Tur. element.

**Alopecurus textilis** Boiss. subsp. **textilis**

Van, Özalp, around A. Sağmalı Village, steppe, 2048 m, 26.06.1997, F 3479a, Ir.-Tur. element.

**Phleum pratense** L.

Van, Özalp, around Yarımağıl Village, damp meadows, 2245 m, 08.07.1998, F 8432, Euro-Sib. element.

**P. montanum** C. Koch subsp. **serrulatum** (Boiss.) M. Doğan

Van, Özalp, above A. Sağmalı Village, grassy places, 2055 m, 20.10.1997, F 5491, E. Medit. element.

**P. phleoides** (L.) Karsten

Van, Özalp, Damlacık Village, Karaveli Hill, hillsides, 2425 m, 09.07.1997, F 5639, Euro-Sib. element.

**Festuca gigantea** (L.) Vill.

Van, Özalp, around A. Koçkiran Village, wet places, 2205 m, 04.07.1997, F 4625, Euro-Sib. element.

**F. arundinacea** Schreber subsp. **arundinacea**

Van, Özalp, A. Sağmalı Village, streamsides, 2038 m, 03.07.1997, F 4581

**F. anatolica** Markgr.-Donnenb. subsp. **borealis** Markgr.-Donnenb.

Van, Özalp, Damlacık Village, rocky slopes, 2241 m, 09.07.1997, F 5741, END.

**Lolium perenne** L.

Van, Özalp, Damlacık Village, Boncuk Stream Valley, grassy places, 2150 m, 09.07.1997, F 5736

**L. multiflorum** Lam.

Van, Özalp, south of Dorutay Village, meadows, 2050 m, 29.07.1998, F 8669

**Poa supina** Schrader

Van, Özalp, around Sarıköy Village, meadows, 2018 m, 02.08.1996, F 648, Euro-Sib. element.

**P. trivialis** L.

Van, Özalp, Yumruklu Village, Dedeçayı, meadows, 2400 m, 04.07.1997, F 4587

**Catabrosella parviflora** (Boiss. & Buhse) Alexeev ex R. Mill. subsp. **parviflora**

Van, Özalp, Y. Tulgalı Village, roadsides, 2183 m, 25.06.1996, F 6159, Ir.-Tur. element.

**Dactylis glomerata** L. subsp. **glomerata**

Van, Özalp, around A. Sağmalı Village, hillsides, 2050 m, 25.06.1996, F 1766, Euro-Sib. element.

**Melica persica** Kunth subsp. **persica**

Van, Özalp, north of Damlacık Village, steppe, 2238 m, 14.06.1996, F 597

**M. persica** Kunth subsp. **inaequiglumis** (Boiss.) Bor

Van, Özalp, west of Y. Balçıklı Village, steppe, 2200 m, 04.07.1997, F 4688b

**Stipa holosericea** Trin.

Van, Özalp, Beyazıt Mountain, steppe, 2750 m, 24.06.1997, F 3795, Ir.-Tur. element.

**S. ehrenbergiana** Trin. & Rupr.

Van, Özalp, Beyazıt Mountain, mountain slopes, 2700 m, 03.08.1996, F 493, Ir.Tur. element.

**Piptatherum holciforme** (Bieb.) Roemer & Schultes subsp. **holciforme** var. **holciforme**

Van, Özalp, west of Gözdeğmez Village, Stream Valleys, steppe, 2180 m, 08.07.1997, F 5257

**Crypsis alopecuroides** (Piller & Mitterp.) Schrader

Van, Özalp, north of Y. Koçkiran Village, marshy ground, 2208 m, 23.06.1996, F 1817

**C. schoenoides** (L.) Lam.

Van, Özalp, east of Y. Tulgalı Village, near stream, 2180 m, 10.07.1997, F 1417