

Avinoam Danin

## **Collections of microspecies of the *Portulaca oleracea* aggregate from Europe and the Mediterranean areas**

### **Abstract**

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Second contribution to the distribution of microspecies belonging to the *Portulaca oleracea* aggregate (*Portulacaceae*) in the Euro+Med Plantbase territories. On the whole 35 new distributional data referred to 8 microspecies are given.

*Key words:* *Portulacaceae*, biogeography, floristics.

### **Introduction**

The present article is a second contribution to fill the gap in our knowledge of the distribution of microspecies belonging to the *Portulaca oleracea* aggregate (sensu Danin & al. 2008) in the Euro+Med Plantbase territories. A first recent report was published by Danin (2011). In order to have as many additional territory/microspecies records a request letter was sent by R. Vogt, the keeper of the Berlin-Dahlem herbarium, to many of the large herbaria in Europe to have on loan the *Portulaca oleracea* aggregate specimens.

### **Material and method**

Altogether 251 herbarium specimens from several herbaria were studied. Seeds were obtained from the herbarium sheets, determined using dissecting microscope and following the key in Danin & al. (2008). The routine of Euro+Med Plantbase to present one record of a taxon per a territory is followed. The Euro+Med PlantBase Codes and Geographical Units and the corresponding TDWG Geography Standard Level 4 codes and ISO Standard Two-Letter codes for each of the Euro+Med PlantBase Core Territories is followed in the present article. Hence, 35 records were selected to be added to the chorological information through the present article.

**Enumeration*****Portulaca cypria* Danin**

- +**Be(B)**: Belgium: Zemst, décombres, 2.7.1902, E. Michel (BR).  
 +**He**: Kanton Zürich, in the collector's garden, 13.7.1931, *E.S. Bael* 56/94 (Z).  
 +**Jo**: Jordan, Aqaba, 16.12.2011, *A. Danin* 2011/J101 (HUJ).

***Portulaca granulostellulata* (Poelln.) Ricceri & Arrigoni**

- +**Be(B)**: Belgium: Béthane, 20.9.1959, *F. Dems* 13968 in herb. *A. Lawalrée* (BR); Roeselare, 31.7.1992, *F. Verloove* (BR).  
 +**Br**: Britain: Essex, 28.6.1929, *Dagenham* 178 (K).  
 +**Ge**: Germany, Bavaria, Bodensee, 21.8.1967, *Brielmaier* 4405 (STU); Bayern, München 29.9.1959, *W. Freiberg* 8516 (M); Rostock, 12.10.1864, *J. Duty* (JE).  
 +**Jo**: Jordan, Dana, 9.10.1929, *E. Nielsen* 518 (E).  
 +**Li**: Libya, Tripolitania, Misurata, 23.8.1962, *Keith* (K).  
 +**Rm**: Romania, Bucharest, 16.7.1963, *Hamon* (E).

***Portulaca nitida* (Danin & H. G. Baker) Ricceri & Arrigoni**

- +**BI(M)**: Balears, Mallorca, Western Puncchal, 10.8.1972, *V. Dalgaard* (E).  
 +**BI(N)**: Balears, Menorca, Cala Alcaufar, 9.8.1970, *J.F.M. & M.J. Canon* (BM).  
 +**Co**: Corse, southern Corse, Piana, 19.8.2010, *M. Heklau* Fr57 (STU).  
 +**Gg**: Georgia, Tbilisi, 5.1962, *U.L. Raiaie* (K).  
 +**Ma**: Morocco, Meknes, entre Meknes et Ain el Kerma, 2.6.1995, *K. Ferguson, R.Parra, M.C. Sanchez & B. Valdes* (K); Prov. Tetouan, 3km SW Sebta (Ceuta), 22.6.1989, *D. Podlech* 2176 (MSB).

***Portulaca oleracea* L. s.str.**

- +**Be(B)**: Obourg, décombres marais, 2.10.1955, *S. Depasse* 62/8 (BR);  
 +**BI(I)**: Balears, Ibiza, Santa Eulalia, 16.7.1965, *Duvigneaud* (BR).  
 +**BI(M)**: Balears, Arreino, 22.11.1962, *Left* (E); Ribeira Brava and Ponta do Sol, 9.4.1940, *O. Hamann* (E).  
 +**Gr**: Greece, Agios Isidorus, 2 km W of Polmari, 8.9.1992, *A. Hansen & H. Nielsen* (E); ca. 4km E of Nea Santa, 1.7.1994, *K.I. Christensen & K.B. Moeller* (E).  
 +**Ma**: Morocco, Asni Arromx (?) alt. 1500 m, 27.6.1936, *E.K. Balls* 5441 (K); Klipps ved Kuplen. 6.8.1902, *M. Vahl* 4927 (E).  
 +**Tn**: Tunisia, Nabeul, 10.1907, *M. Gandoger* (K).  
 +**Sr**: Serbia, Smederevo, 28.7.1954, *T.W. Boecher* (E).

***Portulaca papillatostellulata* (Danin & H.G. Baker) Danin**

- +**Be(B)**: Belgium, Goffontaine, 20.8.1950, *J.M. Warlett* 541303 (BR).  
 +**AE(G)**: Greece, Lesbos, Mitilini, 11.6.1988, *A. Hansen & H. Nielsen* (E); Samos, from Samos town to Mitilini, 28.8.1997, *K.I. Christensen & K.B. Moeller* (E).

***Portulaca sativa* Haw.**

- +**C Be(B)**: Belgium, 27.9.1984, *Robbrecht & Jongepier* (BR); Huy, décombres, 8.1912, *H. Henin* (LG).

***Portulaca trituberculata*** Danin, Domina & Raimondo

- +**Be(B)**: Belgium, Maisweires (Chemin), 8.9.1954, *S. Depasse* (BR); Prov. Anvers, Anvers, 24.9.1990, *J. Lambinon 90/B/517, J. Rouselle & C. van Den Sande* (BR).  
 +**BI(M)**: Balears, Mallorca, Puerto Pollense to El Villa, 2.7.1968, *L.F. Ferguson & I.K. Ferguson*(BM); Formentera, S. Fernando, 6.8.1969, *J.F.M. & M.J. Canon* (BM).  
 +**Br**: Great Britain, Oxford, 13.10.1939, *J.P.M. Brenan* (K).  
 +**Bu**: Bulgaria, Rumelia, *Frivalsky* (BM).  
 +**Ge**: Germany, Berlin, 24.9.1967, *H. Hertel* (M); Baden, 24.7.1934, *P. Brixle* (M).  
 +**Jo**: Jordan, Wadi Karak, 12 km NW of Karak, 6.2011, *B. Langford* (HUU).  
 +**Li**: Libya, Flora Cyrenaica, at the mouth of wadi Demma, 21.9.1951, *C.H. Gimingham* (K); Oasis de Tazerbo, 5.10.1969, *J. Leonard* (K, BR).  
 +**Lu**: Portugal, Minho, 1 km S Gerez, 13.7.1974, *E.A. Leadlay & B. Petty* (E); Rabicha, 7.1890, *A.R. da Cunha* (BR).  
 +**Tn**: Tunisia, Jendouba, Bou Salem, 30.7.1997, *Carème* (BR).

***Portulaca zaffranii*** Danin

- +**Ma**: Morocco, Ulad Settut, 1.7.1933, *F. Sennen & H. Mauricio* (BM).  
 +**Sr**: Serbia, Nisch, 27.8.1921, *N. Yermoloff* (BM).

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