Euro+Med-Checklist Notulae, 16

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Euro+Med-Checklist Notulae, 16

Eckhard von Raab-Straube[1] & Thomas Raus[1] (ed.)

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Abstract: This is the sixteenth of a series of miscellaneous contributions, by various authors, where hitherto unpublished data relevant to both the Med-Checklist and the Euro+Med (or Sisyphus) projects are presented. This instalment deals with the families *Caryophyllaceae*, *Compositae*, *Euphorbiaceae*, *Gramineae*, *Iridaceae*, *Leguminosae*, *Malvaceae*, *Portulacaceae*, *Rosaceae*, *Solanaceae* and *Umbelliferae*. It includes new country and area records and taxonomic and distributional considerations for taxa in *Bromus*, *Datura*, *Daucus*, *Erigeron*, *Euphorbia*, *Iris*, *Minuartia*, *Paspalum*, *Portulaca*, *Sida* and *Vigna*, and a new combination in *Prunus*.

Keywords: distribution, Euro+Med PlantBase, Europe, Med-Checklist, Mediterranean, new combination, new record, taxonomy, vascular plants

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Notice

A succinct description of the Euro+Med project, with a list of recognized territories and their abbreviations, and the conventions used to indicate the status and presence of taxa, can be found in the introduction to the first instalment of the Euro+Med Notulae (Greuter & Raab-Straube 2005: 223–226) and on the Euro+Med PlantBase website (Euro+Med 2006+). For the previous instalment of the Euro+Med-Checklist Notulae, see Raab-Straube & Raus (2022).

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Caryophyllaceae

Minuartia globulosa (Labill.) Schinz & Thell. – Fig. 1. **+ Bu:** Bulgaria: E Rhodope mountains, Kardzhali province, Momchilgrad municipality, Zvezdel village, Debelka hamlet, observed in three adjacent microsites: (1) 41°27'19.4"N, 25°30'13.6"E, (2) 41°27'33.9"N, 25°30'09.8"E, (3) 41°27'59.9"N, 25°30'14.8"E, 520–550 m, open stony and eroded sites, on leaden grey rocks, 14 Sep 2021, completely withered with well-preserved seeds, *Kunev* (SO 108173); ibid., 19 May 2022, in pre-flowering stage, *Kunev* (SO 108164); ibid., 28 May 2022, in flowering stage, *Kunev* (SO 108165, SO 108172, SOM 177700). – The species is new to the Bulgarian flora. There is no previous collection from the country according to the examined material at SO, SOA and SOM (herbarium codes follow Thiers 2023+), nor were any reports traced in the main regional floristic works (Kožuharov & Kuzmanov 1966; Stoyanov & al. 2021). The species was first noted during phytocoenological studies on chamaephyte- and therophyte-rich communities with dominance of *Satureja pilosa* Velen., on 14 Sep 2021. In the following season, two additional field trips were organized with the aim to collect plant material at the flowering stage and to track its phenology. On 19 May 2022, c. 200 individuals were recorded, all non-flowering. On 28 May, the plants were in the beginning of the flowering period. At that date, the species was recorded in two more microsites on the neighbouring hillslopes, with seven and 70 individuals respectively.

The collected plants completely correspond to the descriptions of McNeill (1967), Halliday (1993) and Kamari (1997), and to the type specimen at the virtual herbarium of the Conservatoire et Jardin botaniques de la Ville de Genève (herbarium G, https://www.ville-ge.ch/musinfo/bd/cjb/chg/adetail.php?id=200586). *Minuartia globulosa* is rather distinct and easily separable from the other representatives of the genus in Bulgaria. It differs from the morphologically close *M. montana* subsp. *wiesneri* (Stapf) McNeill by the type of indumentum, composed of glandular-viscid vs eglandular crispate hairs; flower pedicels 2.5–4 mm long vs always less than 2 mm long in *M. montana* subsp. *wiesneri*; calyx base truncate vs rounded; petals 2.5–3 mm long vs petals absent; stamens 5(or 6) vs 10 (McNeill 1967; Halliday 1993; Kamari 1997). Additionally, the seed micromorphology was studied under SEM (Fig. 1C–F). The seeds are dark brown to reddish brown, orbicular-reniform, 0.7–0.8 mm wide, lateral surfaces finely granulate, dorsal surface with 2–8 ridges variable in size bearing verrucate, cylindric or narrowly obpyriform ornamentations.

The range of the species includes Croatia, Greece, Crete, the East Aegean Islands, asiatic Turkey, Cyprus, Lebanon-Syria and Israel-Palestine-Jordan (Marhold 2011+). It is most abundant in Peloponnisos, Greece,

Fig. 6. *Sida rhombifolia*, flowering branch. – Georgia, Guria region, Ureki–Magnetiti, 26 Aug 2022, photograph by P. Novák.

c. 20 small shrubs, *Novák, Pustková, Sedláček, Štětková, Szokala & Večeřa* (obs.). – *Sida rhombifolia* is a perennial weedy species probably spreading in the Mediterranean region, actually known from Italy and Spain (Cambria & al. 2022). It is distributed in tropical, subtropical and warm-temperate parts of the world, but its native range remains unknown, probably located in the palaeotropics (Verdcourt 2004). It prefers open, especially ruderal habitats (roadsides, abandoned farmland, seasonally flooded territories or gardens). The new sites are situated in the humid warm-temperate Colchic lowland of W Georgia, SW Caucasus. Both populations appeared relatively well established, consisting of woody shrubs c. 1.3 m tall. Presumably *S. rhombifolia* has been introduced accidentally to Georgia. The seeds of *Sida* L. are dispersed by wind, humans, animals and rainwater, and those of *S. rhombifolia* are frequently disseminated when their barbed awns stick to animals, clothing and other objects. In Georgia, the species has spread probably by seeds carried on vehicles linked to commercial activities (e.g. grain importation) or on migrating birds. The plants inhabit slightly trampled vegetation of the phytosociological class *Digitario sanguinalis-Eragrostietea minoris* Mucina & al. (Mucina & al. 2016), accompanied by *Cynodon dactylon* (L.) Pers., *Paspalum dilatatum* Poir., *Perilla frutescens* (L.) Britton, *Solanum pseudocapsicum* L. and *Sporobolus indicus* (L.) R. Br. The only species of *Sida* previously reported from Georgia is *S. spinosa* L., an annual alien weed (Valdés & Raab-Straube 2011+). Further spreading of *S. rhombifolia* across W Georgia is predictable, similar to numerous other subtropical and tropical species, due to the favourable climate of the region, which is warm-temperate and humid all year round (Ponert 1977; Sharabidze & al. 2018).

P. Novák & G. Tavilla

Portulacaceae

Portulaca cypria Danin – Fig. 7A, B.

A Cm: Crimea: Sudak, S slope, 31 Jul 1886, *Zelenetskiy* (YALT). – New area record for this taxon, identified by SEM study of the seeds. Its native range is the Mediterranean. It is also found in Belarus, Belgium, Iran, Switzerland and the Transcarpathian region of Ukraine (Uotila 2011+; Amini Rad & al. 2017; Bulakh & al. 2019; POWO 2023b). The only old record of this microspecies in Crimea suggests that it is a casual alien there.

E. Bulakh, L. E. Ryff & M. Shevera

Portulaca daninii Galasso & al. (≡ *Portulaca tuberculata* (Danin & H. G. Baker) Danin 2006 [non *Portulaca tuberculata* León 1950] ≡ *Portulaca oleracea* subsp. *tuberculata* Danin & H. G. Baker) – Fig. 7C, D.

A Cm: Crimea: Sudak, S slope, 31 Jul 1886, *Zelenetskiy* (YALT); Dzhankoyskiy district, Tarkhan-Sunak, 17 Aug 1897, *collector unknown* (YALT); Feodosiyskiy district, Vladislavovskiy site of grain farm, Bashta (melon field), area between Novo-Pokrovka village and Seit-Asan village, 22 Aug 1930, *Deutsch* (*Doych*) (YALT). – New area record for this taxon, identified by SEM study of the seeds. Its native range is Tropical America. It has recently been noted from Ukraine (Bulakh & al. 2020, as *Portulaca tuberculata*) and Poland (Bulakh & al. 2022). Only ancient specimens of this species have been discovered in Crimea. Perhaps it has disappeared by now; therefore it qualifies as a casual alien.

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Portulaca granulatostellulata (Poelln.) Ricceri & Arrigoni ≡ *Portulaca oleracea* subsp. *granulatostellulata* (Poelln.) Danin & H. G. Baker) – Fig. 7E, F.

D Cm: Crimea: Simferopol, 1886, *Andreyev* (YALT); Nikita, Nikitsky Botanical Garden, 44°30'44"N, 34°13'51"E, 160 m, flowerbeds, 6 Dec 2019, *Ryff* (YALT); Gurzuf, on

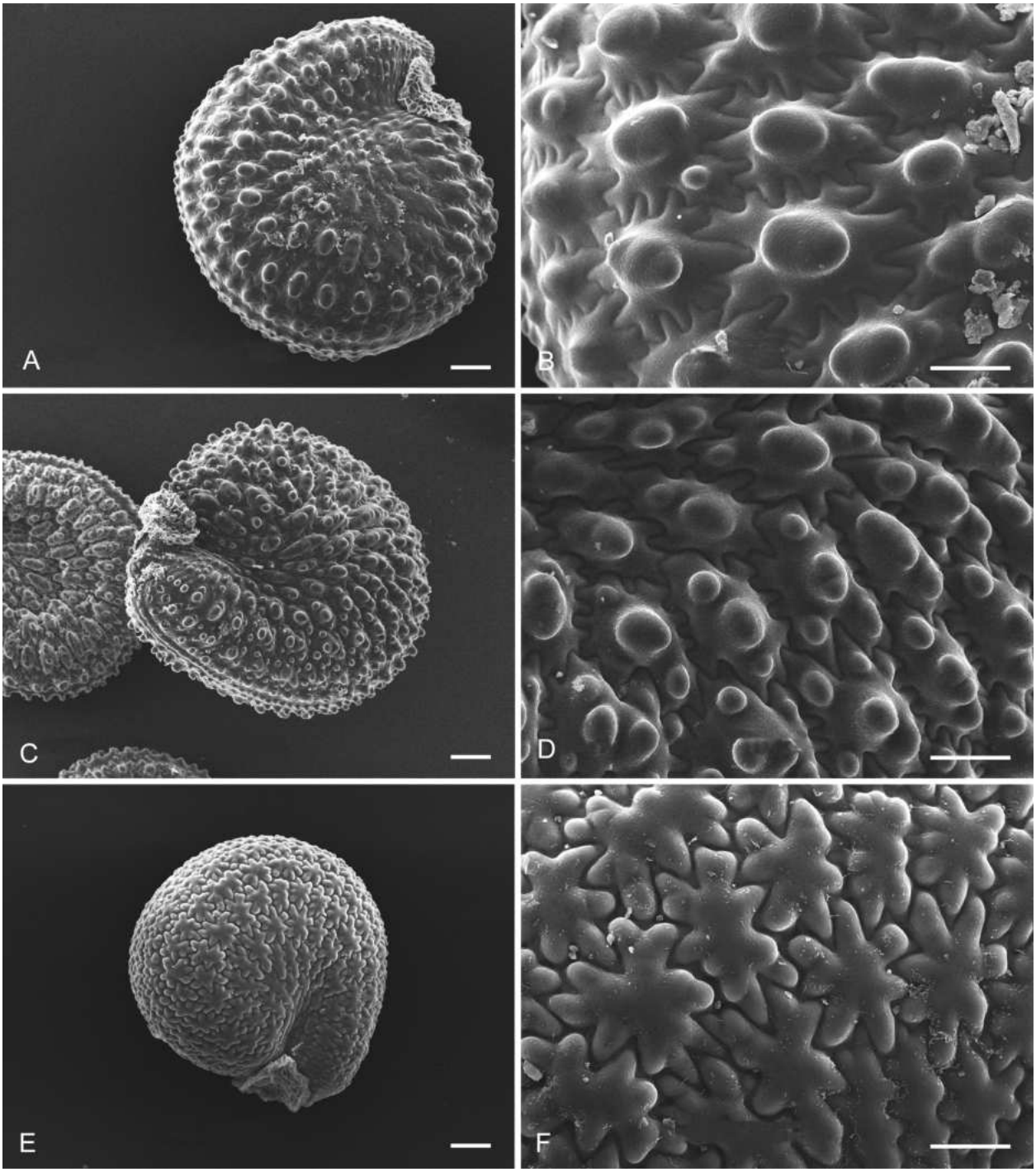

Fig. 7. *Portulaca oleracea* aggregate, ultrastructural study of seed surfaces by SEM. – A, B: *P. cypria*, Crimea, Sudak, S slope, 31 Jul 1886, *Zelenetskiy* (YALT). – C, D: *P. daninii*, Crimea, Tarkhan-Sunak, 17 Aug 1897, *collector unknown* (YALT). – E, F: *P. granulatostellulata*, Crimea, Great Yalta, Krasnokamyanka village, 44°33'57"N, 34°17'02"E, 250 m, side of asphalt road, 3 Aug 2020, *Ryff & Ryff* (YALT). – Scale bars: A, C, E = 100 µm; B, D, F = 50 µm. – Photographs by E. Bulakh & A. Terebilenko.

the embankment, 44°32'09"N, 34°16'26"E, 5 m, flowerbed, 15 Dec 2019, *Ryff* (YALT); Sevastopol, Krishtal beach area, 44°37'01.8"N, 33°31'03.3"E, 3 m, concrete embankment, 24 Aug 2020, *Bogdanovich & Ryff* (herb. Ryff); Bakhchisaray, railway station, 44°45'24.7"N 33°51'01.9"E, 145 m, on the tracks, 23 Aug 2020, *Ryff* (herb. Ryff); Kerch, bus station area, Melek-Chesmensky mound, 45°21'46"N, 36°28'13"E, 5 m, side of street, 10 Sep 2020, *Bogdanovich & Ryff* (herb. Ryff); Great Yalta, Krasnokamyanka village, 44°33'57"N, 34°17'02"E, 250 m, side of asphalt road, 3 Aug 2020, *Ryff & Ryff* (YALT); Yalta, Leningradskaya str., 44°30'06"N, 34°09'56"E, 50 m, on wall, 18 Sep 2021, *Ryff* (YALT). – New area record for this taxon, identified by SEM study of the seeds. It is one of the most common native taxa of the *Portulaca oleracea* aggregate in Europe and W Asia, primarily in

the subtropical zone (Danin 2011; Danin & al. 2011, 2016; Uotila 2011+; Amini Rad & al. 2017; POWO 2023b). For a number of countries, including Ukraine, it is also cited as alien (Bulakh & al. 2019, 2020; POWO 2023b). In Crimea, it has been present for a long time and is found in different parts of the peninsula, but only in anthropogenic habitats.

E. Bulakh, L. E. Ryff & M. Shevera

Portulaca macrantha (Maire) Ricceri & Arrigoni (≡ *Portulaca oleracea* subsp. *macrantha* (Maire) Maire). – Fig. 8A, B.

A Cm: Crimea: Sudak, S slope, 31 Jul 1886, *Zelenetskiy* (YALT); Balaclava, 1896, *Andreyev* (YALT); Simeiz, 28 Jul 1903, in collibus, *Golde* (YALT); SW slope of Ayudag mountain, 22 Aug 1981, *Golubyev & Volokitin* (YALT); Nikita, Nikitsky Botanical Garden, 44°30'41"N, 34°13'56"E, 150 m, flowerbed, 6 Dec 2019, *Ryff* (YALT). – New area record for this taxon, identified by SEM study of the seeds. It is native to the Canary Islands and Morocco (Dobignard & Chatelain 2013), cultivated in Algeria and given as introduced in Tunisia (Domina & al. 2010) and Poland (Bulakh & al. 2022).

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N Uk: Ukraine: Kherson region, Tsuriupinsk district, Kozachi Lageri, sand, 19 Jul 1952, *Gryn & Dubovyk* (KW s.n.); Zhytomyr region, Zhytomyr district, Dovzhyk village, weeds in market garden, 31 Aug 2019, *Orlov* (KW 156624); ibid., Glybochytsia village, side of Zhytomyr–Kyiv highway, 18 Sep 2019, *Orlov* (KW 156626); ibid., Barashivka village, private market garden, on hill, as weed, 2 Oct 2019, *Orlov* (KW 156622); ibid., Zhytomyr, railway station, unloading yard, 8 Oct 2019, *Orlov* (KW 156625); ibid., Golubiatyn village, railway station, 14 Aug 2021, *Orlov* (KW 159035); ibid., Troshcha village, market garden, 20 Aug 2021, *Orlov* (KW 159034); ibid., Motovylovka village, side of highway, 15 Sep 2021, *Orlov* (KW 159036). – New area record for this taxon, identified by SEM study of the seeds. The closest known location is in Poland (Bulakh & al. 2022). In continental Ukraine, it is found in forests (Polissia), forest-steppe and steppe (N Black Sea region) zones. It is probably the most common microspecies of the *Portulaca oleracea* aggregate in the country.

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Portulaca nitida (Danin & H. G. Baker) Ricceri & Arrigoni (≡ *Portulaca oleracea* subsp. *nitida* Danin & H. G. Baker) – Fig. 8C, D.

A Cm: Crimea: Sevastopol, surroundings, Yalta Ring, 44°32'26"N, 33°35'49"E, 100 m, side of road, 19 Jul 2020, *Ryff* (YALT). – New area record for this taxon, identified by SEM study of the seeds. One of the most widespread taxa of the *Portulaca oleracea* complex. The native range is Europe to C Asia and N Africa (POWO 2023b). It was recently noted as an alien in W Ukraine (Bulakh & al. 2020). In Crimea, it is a rare morphotype and likely to be considered a casual alien.

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Portulaca oleracea L. s. str. – Fig. 8E, F

D Cm: Crimea: Dzhankoyskiy district, Taganash, 17 Aug 1886, *Zelenetskiy* (YALT); Sevastopol region, Balaclava, boulevard, 27 Jul 1897, *collector unknown* (YALT); S coast of Crimea, Artek, "New village", 44°33'57"N, 34°19'03"E, 200 m, as weed on trail, 6 Sep 2021, *Ryff* (YALT); Yalta, bus station, 44°30'42"N, 34°10'14"E, 45 m, flowerbed, 28 Sep 2021, *Ryff* (YALT). – *Portulaca oleracea* is the only species of the genus reported earlier for Crimea. In some sources, it is given as native (Yena 2012), in others as alien (POWO 2023b). It has been cited for Crimea as a plant widespread in ruderal places and agricultural lands since at least the end of the 18th century. In the Euro+Med PlantBase (Uotila 2011+), the *P. oleracea* aggregate in general is reported for the region, but neither *P. oleracea* s. str. nor other taxa of *P. oleracea* complex are given. The results of our SEM study of the seeds confirm that *P. oleracea* s. str. occurs in Crimea along with other taxa of this complex, which are listed here for the first time. Specimens of this morphotype have been collected over a long time in different parts of the peninsula, though occasionally, usually in anthropogenic habitats. Probably it is a native plant or an archaeophyte in Crimea.

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Portulaca papillatostellulata (Danin & H. G. Baker) Danin (≡ *Portulaca oleracea* subsp. *papillatostellulata* Danin & H. G. Baker) – Fig. 9A, B.

N Cm: Crimea: Gurzuf, on the embankment, 44°32'09"N, 33°38'21"E, 5 m, flowerbed, 15 Dec 2019, *Ryff* (YALT); Bakhchisaray, railway station, 44°45'24.7"N 33°51'01.9"E, 145 m, on the tracks, 23 Aug 2020, *Ryff* (herb. Ryff); Armiansk vicinity, administrative border, 46°08'38"N, 34°16'26"E, 20 m, near road, 7 Oct 2021, *Ryff* (herb. Ryff); Kerch, bus station area, Melek-Chesmensky mound, 45°21'46"N, 36°28'13"E, 5 m, side of street, 10 Sep 2020, *Bogdanovich & Ryff* (herb. Ryff). – New area record for this taxon, identified by SEM study of the seeds. The native range is the Mediterranean; it is also given as native for some countries of the temperate zone of C and E Europe (POWO 2023b). It was recently noted from Ukraine (Bulakh & al. 2019, 2020).

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Portulaca rausii Danin (≡ *Portulaca oleracea* subsp. *rausii* (Danin) J. Walter) – Fig. 9C, D.

+ Cm: Crimea: Simeiz, W slope of Koshka mountain, 15 Aug 1977, *Kosykh & Usacheva* (YALT); S coast of Crimea, top of the Red Stone cliff, 44°34'09"N, 34°17'08"E, 370 m, 4 Aug 1978, *Kosykh & Usacheva* (YALT); Gurzuf, 44°32'36"N, 34°15'59"E, 150 m, vineyard below bus stop "Priyatnoye svidaniye", 27 Jul 2020, *Ryff* (YALT); Nikita village, 44°30'59"N, 34°14'14"E, 170 m, along

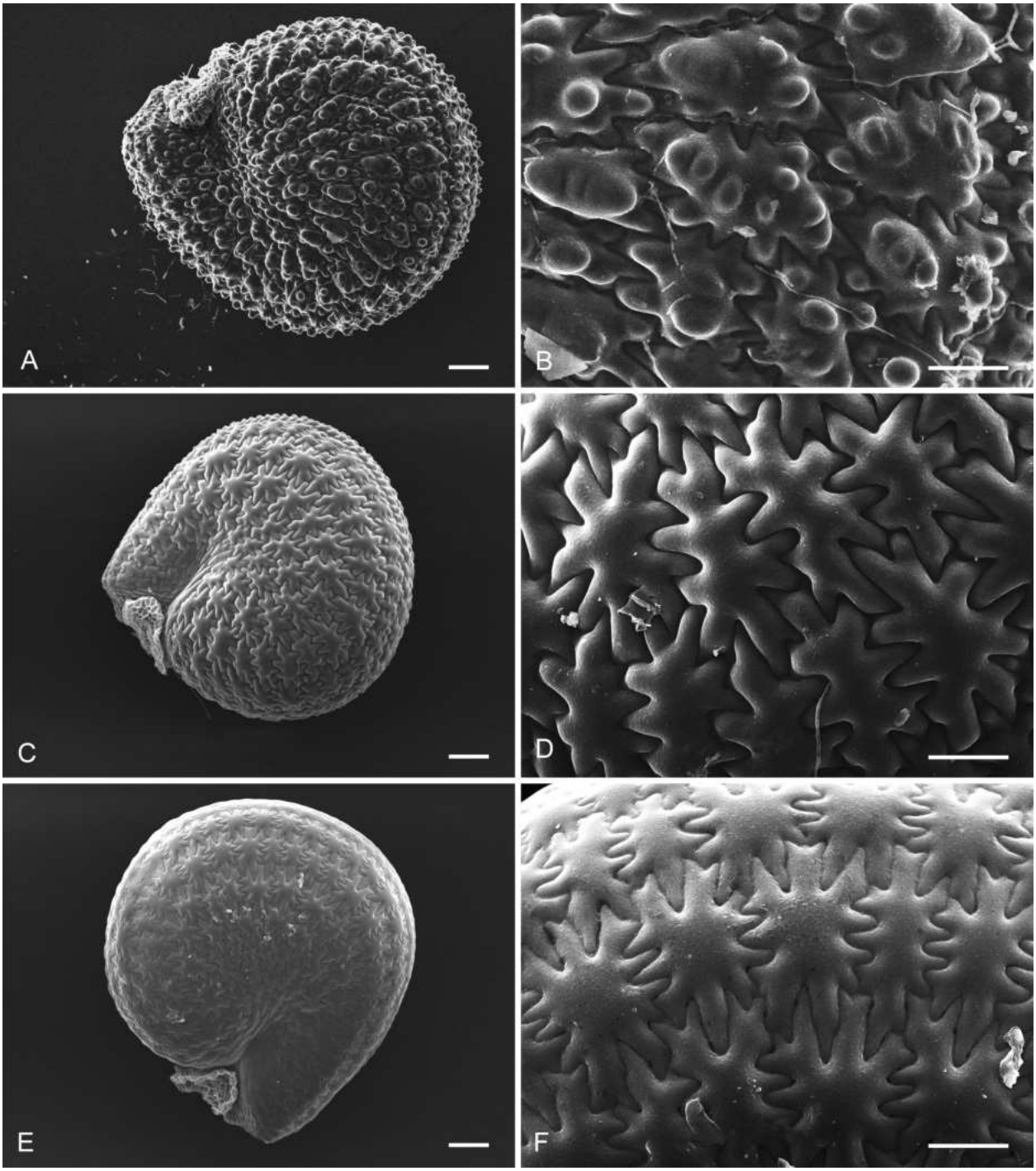

Fig. 8. *Portulaca oleracea* aggregate, ultrastructural study of seed surfaces by SEM. – A, B: *P. macrantha*, Crimea, Simeiz, 28 Jul 1903, in collibus, *Golde* (YALT). – C, D: *P. nitida*, Crimea, Sevastopol, surroundings, Yalta Ring, 44°32'26"N, 33°35'49"E, 100 m, side of road, 19 Jul 2020, *Ryff* (YALT). – E, F: *P. oleracea* s. str., Crimea, S coast of Crimea, Artek, "New village", 44°33'57"N, 34°19'03"E, 200 m, as weed on trail, 6 Sep 2021, *Ryff* (YALT). – Scale bars: A, C, E = 100 µm; B, D, F = 50 µm. – Photographs by E. Bulakh & A. Terebilenko.

street, 29 Jul 2020, *Ryff* (YALT). – New area record for this taxon, identified by SEM study of the seeds. Its native range is the Mediterranean. The localities nearest to the Crimean populations are in continental S Ukraine, where it is noted as doubtfully naturalized (Dzhus & al. 2015; POWO 2023b), and in the E Mediterranean, where it is native. In Crimea, *Portulaca rausii* was found primarily in natural and semi-natural habitats only on the S coast, in the submediterranean zone. This suggests that it is a native species there.

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Portulaca sardoa Danin & al. – Fig. 9E, F.

A Cm: Crimea: Yalta, bus station, 44°30'42"N,

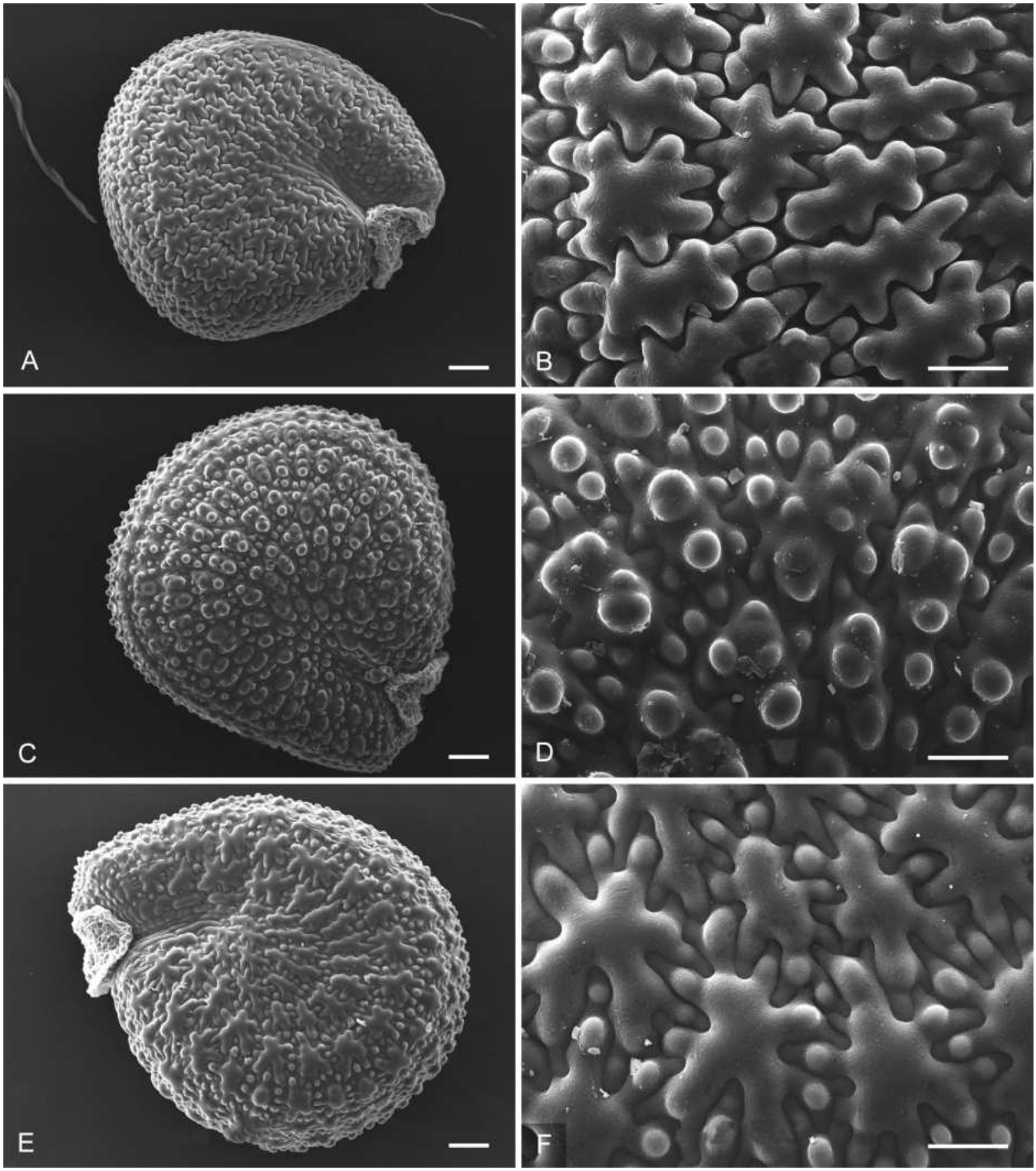

Fig. 9. *Portulaca oleracea* aggregate, ultrastructural study of seed surfaces by SEM. – A, B: *P. papillatostellulata*, Crimea, Bakhchisaray, railway station, 44°45'24.7"N 33°51'01.9"E, 145 m, on the tracks, 23 Aug 2020, *Ryff* (herb. Ryff). – C, D: *P. rausii*, Crimea, Gurzuf, 44°32'36"N, 34°15'59"E, 150 m, vineyard below bus stop "Priyatnoye svidaniye", 27 Jul 2020, *Ryff* (YALT). – E, F: *P. sardoa*, Crimea, Yalta, bus station, 44°30'42"N, 34°10'14"E, 45 m, flowerbed, 22 Dec 2019, *Ryff* (YALT). – Scale bars: A, C, E = 100 µm; B, D, F = 50 µm. – Photographs by E. Bulakh & A. Terebilenko.

34°10'14"E, 45 m, flowerbed, 22 Dec 2019, *Ryff* (YALT); ibid., 44°30'41"N, 34°10'11"E, 45 m, flowerpot, 28 Sep 2021, *Ryff* (YALT). – This taxon is given only for Sardinia and Corsica (Danin & al. 2012, 2016; POWO 2023b). In Crimea, *Portulaca sardoa* has been found in a single locality so far. Probably it was accidentally introduced from Italy with a soil mixture or planting material for ornamental plants.

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A Uk: Ukraine: Zhytomyr region, Zhytomyr, centre, near Zhytomyr Hotel, flowerbed, small plant with small leaves, 18 Sep 2019, *Orlov* (KW 159038); ibid., Zhytomyr district, Teteriwka village, market garden, with large leaves

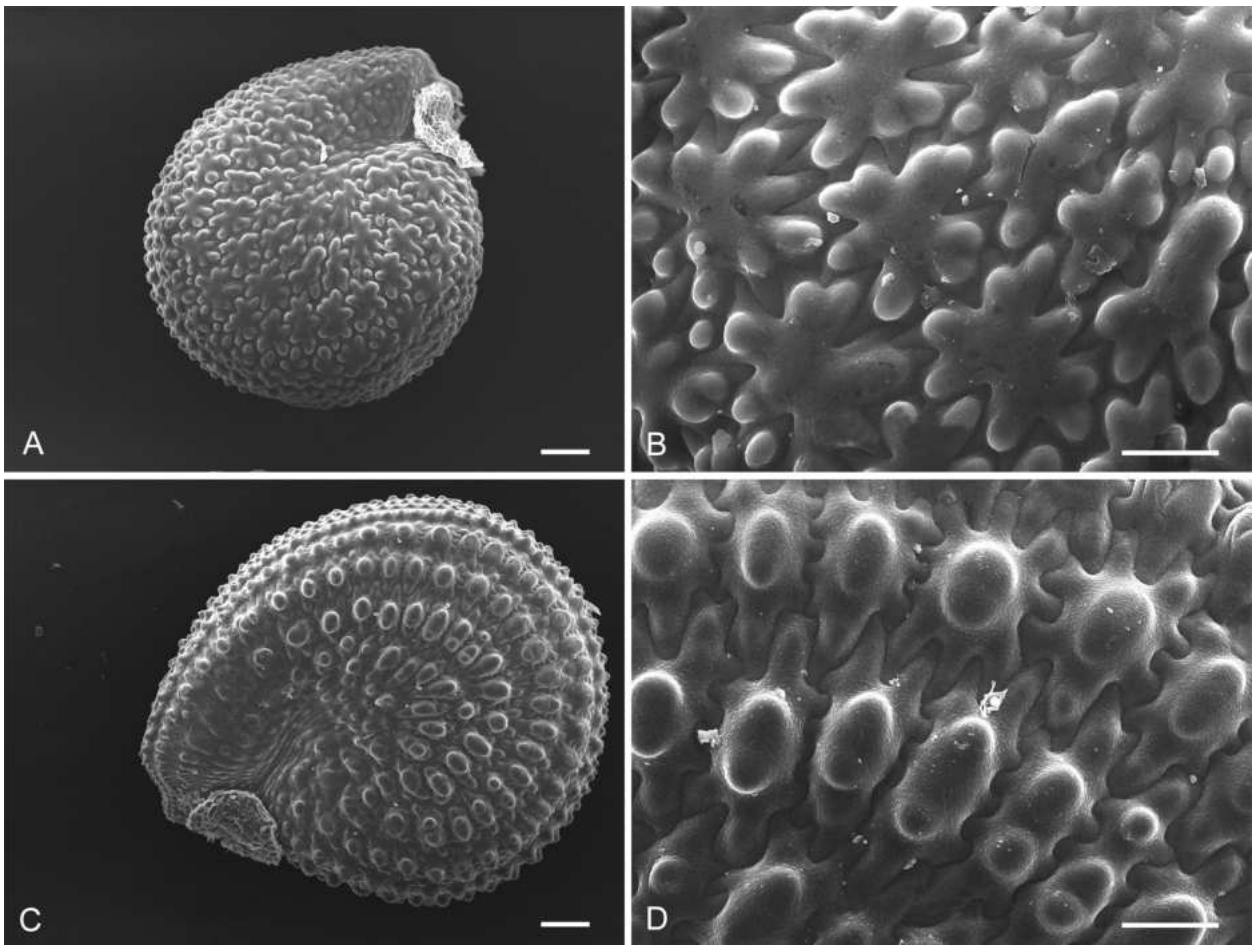

Fig. 10. *Portulaca oleracea* aggregate, ultrastructural study of seed surfaces by SEM. – A, B: *P. socotrana*, Crimea, Gurzuf, Podvoyskogo str., 44°32'38"N, 34°16'48"E, 50 m, 2 Oct 2021, *Ryff* (YALT). – C, D: *P. trituberculata*, Crimea, vicinity of Nikitsky Botanical Garden, fig tree plot, 10 Oct 1958, *Prokonkina* (YALT). – Scale bars: A, C = 100 µm; B, D = 50 µm. – Photographs by E. Bulakh & A. Terebilenko.

(2.5–3 cm long), 6 Oct 2019, *Orlov* (KW 159047); ibid., Radomyshl, private sector, market garden, 9 Aug 2020, *Orlov* (KW 159039); ibid., Berdychiv, railway station, near the track, 24 Jul 2021, *Orlov* (KW 159043); ibid., Troshcha village, market garden, 20 Aug 2021, *Orlov* (KW 159034); ibid., Velyka Volytsia village, wet clay on shore of pond, 16 Sep 2021, *Orlov* (KW 159041); ibid., Velyki Korovyntsi village, railway station, gravel, 19 Sep 2021, *Orlov* (KW 159040); ibid., Berdychiv district, Derganivka village, railway station, 9 Oct 2021, *Orlov* (KW 159042). – New area record for this taxon, identified by SEM study of the seeds. Previously, *Portulaca sardoa* was known only from Sardinia and Corsica (Danin & al. 2012, 2016; POWO 2023b). This is the first record for E Europe.

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Portulaca socotrana Domina & Raimondo – Fig. 10A, B.
A Cm: Crimea: Gurzuf, Podvoyskogo str., 44°32'38"N, 34°16'48"E, 50 m, 2 Oct 2021, *Ryff* (YALT). – New area record for this taxon, identified by SEM study of the seeds. The taxon was previously considered endemic to the island of Socotra in the Indian Ocean (Domina & Raimondo 2009), from where it was described, but was later noted in Tehran province in Iran (Amini Rad & al. 2017). It was probably accidentally introduced to Crimea with imported building materials. *Portulaca socotrana* grows together with other alien species recently recorded in the region: *Acalypha australis* L. (Yena 2012), *Erigeron sumatrensis* Retz. (Raab-Straube & Raus 2017) and *Sagina apetala* Ard. (Raab-Straube & Raus 2016).

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Portulaca trituberculata Danin & al. (≡ *Portulaca oleracea* subsp. *trituberculata* (Danin & al.) J. Walter) – Fig. 10C, D.
+ Cm: Crimea: Sevastopol region, Georgiyevskiy monastery, 31 Aug 1891, *collector unknown* (YALT); Balaclava, 1896, *Andreyev* (YALT); Staryi Krym, ravines along E slope of Holyi Agarmysh, 17 Aug 1927, *Tsyrina* (YALT); vicinity of Nikitsky Botanical Garden, fig tree plot, 10 Oct 1958, *Prokonkina* (YALT); vicinity of Gurzuf, Myortvaya dolina, 44°33'03"N, 34°17'01"E, 80 m, dry grassland on rocky slope, 24 Feb 2006, *Ryff* (YALT); ibid., below bus stop "Priyatnoye svidaniye", 44°32'36"N, 34°15'59"E,

150 m, vineyard, 27 Jul 2020, *Ryff* (YALT); ibid., border between vineyards and territory of Yalta Natural Mountain and Forest Reserve near road to Gornoye Ozero, 44°32'28"N, 34°15'40"E, 250 m, flysch outcrops along road, 7 Nov 2020, *Ryff* (YALT). – New area record for this taxon, identified by SEM study of the seeds. The native range of this taxon is the Mediterranean; it is found in Europe, N Africa and W Asia (Amini Rad & al. 2017; POWO 2023b). Recently, *Portulaca trituberculata* was noted from continental Ukraine (Bulakh & al. 2020). Because this taxon is characterized as native in the regions adjacent to Crimea, and it has been widely distributed on the peninsula for a long time, mostly in natural and semi-natural habitats, it can obviously be considered a native species there. E. Bulakh, L. E. Ryff & M. Shevera

Rosaceae

Prunus zielinskii (Browicz) Kosiński, D. Tomasz. & Ziel., **comb. nov.** ≡ *Amygdalus zielinskii* Browicz in Karaca Arbor. Mag. 1: 126. 1992.

Due to the results of the latest molecular studies indicating that there was a need for a broad treatment of the genus *Prunus* (*Rosaceae*), it has also been necessary to correct some of the names of the species that were previously included in narrowly understood taxa at the rank of genus, including *Amygdalus* L. (Lee & Wen 2001; Bortiri & al. 2002, 2006). In the case of almonds, this adjustment has already been made for nearly all known species (Eisenman 2015), except for the relatively recently described *A. zielinskii* (Browicz 1992). That species has not yet had a formal name validation in the genus *Prunus* L., and in the POWO database (POWO 2023c), its name has been marked as "unplaced".

Prunus zielinskii is a range-restricted taxon, so far known from several localities in SC Turkey, on the border of the provinces of Antalya and Mersin. It is similar to *P. argentea* Rehder (*Amygdalus orientalis* Mill.), a species widespread in SW Asia (Post 1896; Townsend & al. 1966; Browicz 1972; Zohary 1972), but differs from the latter primarily by its smaller, clearly serrated leaves and less permanently hairy shoots, becoming completely glabrous in the next growing season.

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Solanaceae

***Datura ferox* L.**

A Tn: Tunisia, Gafsa, Gafsa South, Kef Derbi, 34°37'45"N, 08°35'06"E, 510 m, along roadside, 27 May 2022, *El Mokni* (Herb. Univ. Monastir). – As part of ongoing studies on updating the list of Tunisian alien flora mainly within the *Solanaceae* (see, e.g., El Mokni 2018, 2019a, 2019b; El Mokni & Domina 2020), we report here a casual alien species new for the alien flora of Tunisia (Gafsa). Like all species of *Datura* L., *D. ferox* seems to be native to Central America (principally Mexico) and the S U.S.A. (Symon & Haegi 1991; Geeta & Gharaibeh 2007). It is an annual herb growing up to 50 cm tall. The plant has become a significant weed of summer crops and pastures in many subtropical and warm-temperate parts of the world (CABI 2023). For N Africa, it is reported only as naturalized in Algeria, but there was no mention for Tunisia (Valdés 2012+; Dobignard & Chatelain 2013; APD 2023). In 2022, a few individuals were discovered growing along roadsides near Kef Derbi (Gafsa South). In Tunisia, the species seems to be a recent introduction by human activities and can therefore be considered as a casual alien. This is its second report for N Africa. An analytical key is proposed here for Tunisian species of the genus *Datura* (based on Dupin & Smith 2018).

Analytical key to the species of *Datura* occurring in Tunisia

1. Leaves sinuately dentate to pinnately lobed; fruit (capsule) erect; seeds without elaiosome **2**
– Leaves unequally dentate to almost entire; fruit (capsule) never erect; seeds with elaiosome **3**
2. Fruit with numerous, ± equal, evenly distributed spines . . . . . ***D. stramonium*** L.
– Fruit with few, unequal, stout, unevenly distributed spines (longer at fruit apex) . . . . . ***D. ferox*** L.
3. Leaves glabrous; fruit spines short, blunt, sometimes reduced to bumps; corolla commonly with 2 verticils (flore pleno) and purple on outer surface . . . . . ***D. metel*** L.
– Leaves pubescent; fruit spines not reduced, sharp to touch; corolla with 1 verticil and not purple on outer surface **4**
4. Corolla outer surface glabrous . . . . . ***D. inoxia*** Mill.
– Corolla outer surface pubescent . . ***D. wrightii*** Regel

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Umbelliferae (*Apiaceae*)

Daucus guttatus Sm. (= *Daucus guttatus* subsp. *zahariadii* Heywood; = *Daucus broteri* Ten.) – Fig. 11.

+ Cm: Crimea: Chernomorskiy district, 3 km WNW of Olenyovka, 45°23'30"N, 32°29'50"E, 20 m, steppe with *Artemisia santonica* Lam., *Festuca valesiaca* Gaudin and *Stipa capillata* L. on rocky ground, 14 Aug 2008, *Seregin & Seregina* (MW 0621545 as *D. carota* L. s. l.) (Seregin 2023b); Sevastopol region, Balaclava, 44°31'58"N, 33°36'58"E, 95 m, dry grassland, 4 Jul 2018, *Ryff* (YALT); ibid., 23 Jul 2018, *Ryff* (YALT); ibid., S of Orlovka, 44°43'09.3"N, 33°34'45.2"E, 60 m, dry grassland, 20 Jun 2020, *Safina* (*dinasafina*) (photo: https://www.inaturalist.org/observations/50313175 as *D. carota* L.); ibid., Chernorech'e vicinity, 44°32'35.6"N, 33°39'46.1"E, 45 m, dry grassland, *Svirin* (*sapsan*) (photo: https://www.inaturalist.org/observations/51320074 as *D. carota* L.); Sak-

of this taxon, viz.: plants annual; stems 20–60 cm tall; umbels 4–7 cm in diam., with 8–22 rays; bracts shorter than or as long as rays, usually 3-fid; flowers of central umbellule dark purple, other umbellules with no dark-pigmented flowers; mericarps 3–4 × 1–1.5 mm, with 9–13 spines in each secondary rib, central spine 1–2.5 × as long as mericarp width. Some authors consider the allocation of subspecies in *D. guttatus* inappropriate, because the species is very polymorphic throughout its range (Martínez-Flores & al. 2016). For E Europe, *D. guttatus* is reported here for the first time. Recently, this species was found in the N Caucasus in Dagestan, where it is considered an alien (Shner & al. 2017; https://www.gbif.org/occurrence/3747373470). For Crimea, *D. guttatus* is a native plant. It grows in steppe and semi-natural grasslands, sometimes as weed near roads, on the outskirts of vineyards and on household refuse in suburban areas. It occurs scattered mainly in the W part of the peninsula.

L. E. Ryff

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