

flowered. Corolla 2–3 mm, pale yellow; wings and keel equal, shorter than standard. Legume 1.5–3 mm, subglobose, strongly reticulate-veined, glabrous, whitish-grey when young. *Mediterranean region and S.W. Europe; naturalized in C. & N.W. Europe.* Al *Az Bl Co Cr Ga Gr Hs It Ju Lu Sa Si Tu [Au Be Br Cz Ge He Ho].

11. *M. elegans* Salzm. ex Ser. in DC., *Prodr.* 2: 188 (1825). Erect annual 20–150 cm; stem pubescent above. Lower leaflets obovate-orbicular, the upper oblong, all obtuse or truncate, serrate. Lower stipules triangular-lanceolate, the upper linear-setaceous, entire. Racemes 1.5–2 cm, lax, 15- to 30-flowered. Corolla 4–5 mm, yellow; standard and wings equal, shorter than keel; ovary glabrous. Legume 3.5–4 mm, obovoid, compressed, with transverse or sigmoid veins, brownish-yellow when ripe. *Grassland, usually near the sea. W. & C. Mediterranean region, Portugal.* Al Bl Co Ga ?Gr Hs It Ju Lu Sa Si.

12. *M. infesta* Guss., *Fl. Sic. Prodr.* 2: 486 (1828). Erect or ascending, branched annual 30–50 cm. Lower leaflets triangular or cuneate-obovate, the upper oblong-cuneate. Stipules semi-ovate or sagittate, dentate. Racemes 2–3 cm, lax, 15- to 50-flowered, elongating in fruit. Corolla 6–7.5 mm, yellow, standard and keel subequal, shorter than wings; ovary glabrous. Legume 4–5 mm, subglobose or obovoid, concentric-striate, blackish-brown when ripe. *W. Mediterranean region.* Bl Co It Si.

13. *M. sulcata* Desf., *Fl. Atl.* 2: 193 (1799). Erect, branched or simple annual 10–40 cm. Leaflets oblong-cuneate, obtuse, serrate. Stipules dentate. Racemes 1–1.5 cm, 8- to 25-flowered, elongating in fruit and then as long as or longer than the leaves. Corolla 3–4 mm, yellow. Legume 3–4 mm, globose, concentric-striate, pale yellow or yellowish-brown when ripe. *Cultivated ground and other open habitats. Mediterranean region, S. Portugal.* Al Bl Co Cr Ga Gr Hs It Ju Lu Sa Si Tu.

14. *M. segetalis* (Brot.) Ser. in DC., *Prodr.* 2: 187 (1825). Erect annual 40–60 cm. Leaflets obovate-cuneate, obtuse, serrate. Lowest stipules entire, the upper dentate. Racemes c. 3 cm, dense, 30- to 50-flowered, c. 3 times as long as their subtending leaf. Corolla 4–8 mm, yellow. Legume 2.5–5.5 mm, oblong-globose, concentric-striate, yellow when ripe. *Damp places. Mediterranean region, Portugal.* Bl Co Cr Ga Gr Hs It Ju Lu Sa Si.

This species is composed of two taxa which may merit specific rank. Typical *M. segetalis*, from the W. Mediterranean region and C. & S. Portugal, has the legume 4.5–5.5 mm with 12–15 concentric striations. The second taxon, from the Mediterranean region and Portugal, has the legume 2.5–3 mm with up to 8 concentric striations. The correct name for the latter is uncertain.

15. *M. messanensis* (L.) All., *Fl. Pedem.* 1: 309 (1785) (*M. sicula* (Turra) B. D. Jackson). Erect or ascending, branched annual 20–40 cm. Leaflets obovate-orbicular or lanceolate-cuneate, serrate. Lower stipules triangular-lanceolate, denticulate, the upper lanceolate, entire but denticulate at base. Racemes 0.7–1 cm, 3- to 10-flowered, shorter than their subtending leaves. Corolla 4–5 mm, yellow; standard and keel subequal, longer than wings. Legume 5–8 mm, oblique-ovoid, acute, concentric-striate, yellowish-brown when ripe. *Cultivated ground and damp places, especially near the coast. Mediterranean region, Portugal.* Bl Co Ga Hs It Ju Lu Sa Si Tu.

16. *M. physocarpa* Stefanov, *Bull. Soc. Bot. Bulg.* 3: 79 (1929). Erect annual 10–15 cm, diffusely branched from base; branches crispate-pubescent. Leaflets cuneate-obovate, denticulate, slightly fleshy. Stipules lanceolate, entire. Racemes short, few-flowered,

longer than subtending leaf. Corolla c. 5 mm, white, tinged with blue or violet. Legume 4–4.5 mm, ovoid-globose, abruptly mucronate, pendent, with few obscure longitudinal veins, sparsely crispate-pubescent. *Dry, rocky places.* ● *Turkey-in-Europe (Kumbag, near Tekirdag).* Tu.

This species is apparently known only from the original collection, the location of which is uncertain. It is very similar to and may not be distinct from *M. bicolor* Boiss. & Balansa in Boiss., *Diagn. Pl. Or. Nov.* 3(6): 46 (1859), from W. Anatolia.

55. *Trigonella* L.¹

Annual. Leaves pinnately 3-foliolate; leaflets usually toothed. Flowers solitary or in sessile or pedunculate axillary heads or short racemes. Calyx-teeth equal or unequal; corolla yellow, blue or purplish, free from the staminal tube, deciduous; stamens diadelphous or monadelphous; filaments not dilated. Legume usually linear or oblong, straight or curved, indehiscent or dehiscing along one suture. Seeds 1–many.

Literature: G. Širjaev, *Publ. Fac. Sci. Univ. Masaryk* 102: 1–57 (1928); 110: 1–37 (1929); 128: 1–31 (1930); 136: 1–33 (1931); 148: 1–43 (1932); 170: 1–37 (1933). I. T. Vassilczenko, *Acta Inst. Bot. Acad. Sci. URSS* 10: 124–269 (1953).

- 1 Calyx 5–12 mm, tubular
- 2 Legume 1–2 mm wide, not beaked; seeds smooth; pedicels c. 2 mm 7. grandiflora
- 2 Legume 2.5–7 mm wide, beaked; seeds tuberculate; pedicels not more than 0.5 mm
- 3 Flowers (3–)10–15 in pedunculate heads; beak of legume 3.5–5 mm 20. coerulescens
- 3 Flowers solitary or paired and not pedunculate; beak of legume 10–40 mm
- 4 Leaflets 20–50 × 10–15 mm; legume (excluding beak) 60–110 mm; seeds quadrangular 23. foenum-graecum
- 4 Leaflets 5–12 × 3–8 mm; legume (excluding beak) 15–40 mm; seeds ovoid
- 5 Corolla 8–10 mm; legume straight; beak 10–20 mm 21. gladiata
- 5 Corolla c. 18 mm; legume curved; beak 30–40 mm 22. cariensis
- 1 Calyx 2–5 mm, usually campanulate
- 6 Legume flat, membranous, with a broad membranous wing on the suture
- 7 Calyx c. 3 mm; corolla 7–10 mm; legume 12–20 × 10–15 mm 1. graeca
- 7 Calyx c. 2 mm; corolla c. 5 mm; legume 11–14 × 8–10 mm 2. cretica
- 6 Legume not membranous and not winged
- 8 Corolla blue, rarely white; legume 4–5 mm
- 9 Racemes globose, scarcely elongating after anthesis; legume abruptly contracted into a beak 18. caerulea
- 9 Racemes subglobose, elongating after anthesis; legume gradually attenuate into a beak 19. procumbens
- 8 Corolla yellow, sometimes tinged with purple; legume 5 mm or more
- 10 Racemes sessile or subsessile with peduncles less than 0.5 cm
- 11 Legume glabrous
- 12 Legume erect or patent 13. arcuata
- 12 Legume pendent
- 13 Stems sparsely hairy; calyx-teeth shorter than tube 10. spinosa
- 13 Stems densely appressed-pubescent; calyx-teeth longer than tube 17. monspeliaca
- 11 Legume pubescent at least when young
- 14 Legume 7–17 mm, pendent 17. monspeliaca
- 14 Legume (10–)20–50 mm, erect or patent
- 15 Legume 1.5–2 mm wide, with reticulate veins 15. polyceratia

¹ By R. B. Ivimey-Cook.