

AL FAATEH UNIVERSITY  
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# FLORA OF LIBYA

53

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## **Editors :**

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CUSCUTACEAE

by S.M.H. JAFRI

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## CUSCUTACEAE

S.M.H. JAFRI

Herbaceous, twining, thread-like parasites, attached to the host plant by haustoria. Leafless or leaves reduced to minute scales. Inflorescences cymose, usually capitulate or in glomerules, sometimes umbellate or spike-like. Flowers (3-) 4-5-merous, small, white, yellowish or reddish. Calyx (4-) 5-lobed. Corolla urceolate or campanulate, (4-) 5-lobed; usually with a ring of 4-5 small scales (hypostaminal scales) below the insertion of the stamens and opposite to it. Stamens 4-5, inserted on the corolla tube. Styles (1-) 2, rarely more, free or connate, with linear or capitate stigmas. Ovary 2-celled with 2 anatropous ovules in each cell. Fruit a capsule, usually circumscissile near the base by a regular or irregular line; seeds 4 or less, with a linear embryo embedded in a cartilaginous endosperm; cotyledons absent or rudimentary.

A monotypic family, sometimes included in *Convolvulaceae* but habit different and parasitic and hypostaminal scales usually present.

### CUSCUTA

L., Sp. Pl. 124. 1753; Gen. Pl. ed. 5: 60. 1754.

Characters same as that of the family. About 200 species, almost cosmopolitan; represented by 3 species in Libya.

- |    |  |                         |
|----|--|-------------------------|
| 1. | + Hypostaminal scales not 2-lobed, flowering head or glomerules 5-6 mm in diameter; flowers 2-3 mm long                                  | 3. <i>C. planiflora</i> |
|    | — Hypostaminal scales 2-fid, at least above. Flowering heads or glomerules (5-) 7-15 mm in diameter; flowers usually more than 3 mm long | 2                       |
| 2. | + Styles with stigma shorter than ovary. Flowering glomerules 10-15 mm in diam. Calyx lobes obtuse                                       | 1. <i>C. europaea</i>   |

CUSCUTACEAE

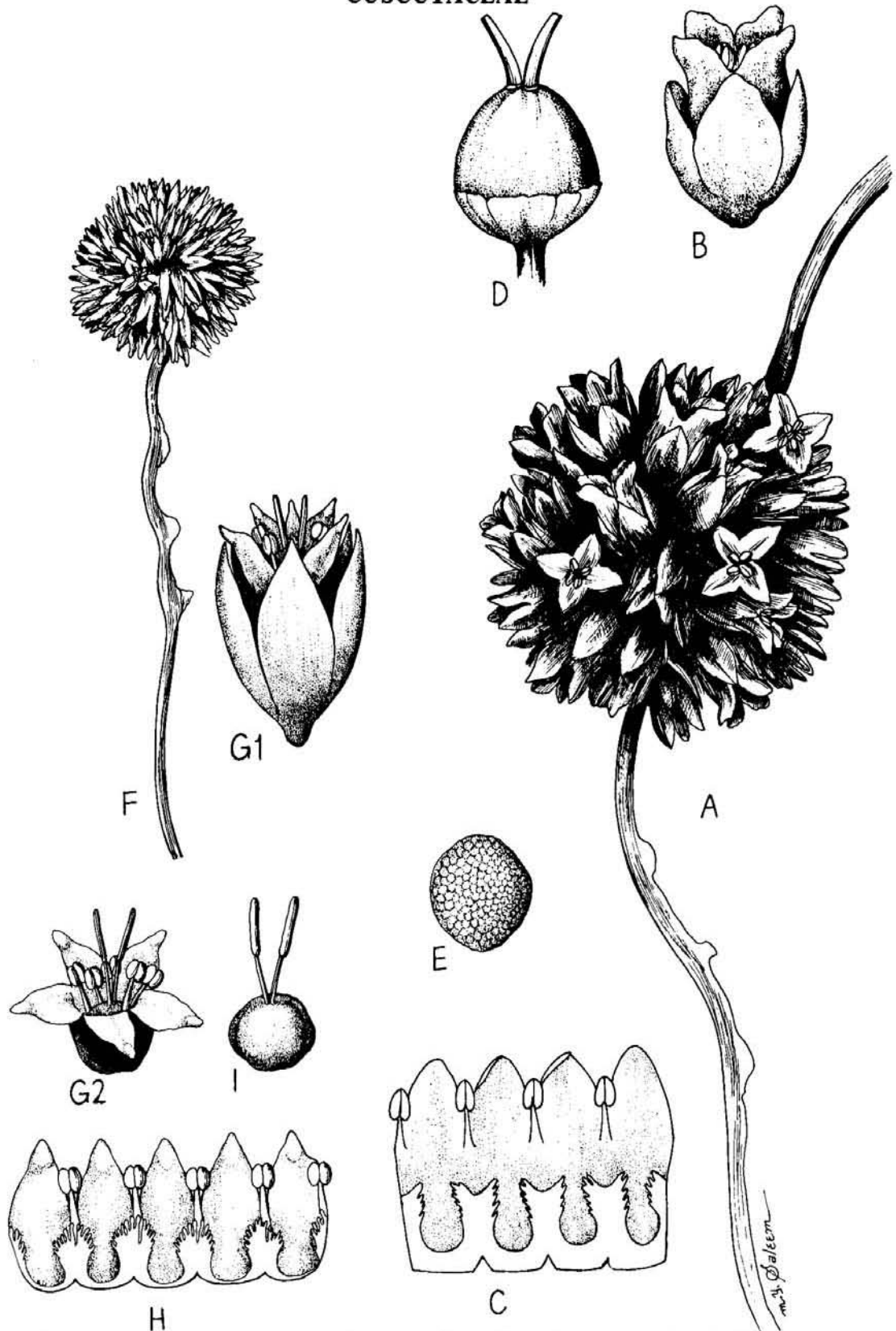


Fig. 1 *Cuscuta europaea*: A, stem with a flowering glomerule x 5; B, flower x 10; C, corolla spread open to show stamens and hypostaminal scales x 10; D, capsule x 10; E, seed x 20. *C. epithymum*: F, stem with a flowering glomerule x 5; G<sub>1</sub>, young flower with prominent calyx; G<sub>2</sub>, flower with sepals removed x 10; H, corolla spread open to show stamens and hypostaminal scales x 10; I, capsule x 10.

## CUSCUTACEAE

— Styles with stigma longer than ovary. Flowering glomerules 5-10 mm in diam. Calyx lobes acute or acuminate

### 2. *C. epithymum*

1. *Cuscuta europaea* L., Sp. Pl. 124. 1753; Durand & Barratte, Fl. Lib. Prodr. 166. 1910; Pamp., Prodr. Fl. Ciren. 369. 1931; Keith, Prelim. Check List Lib. Fl. 409. 1965 (Fig. 1, A-E).

Plants often reddish with flowering glomerules 10-15 mm in diam., each with a bract at the base. Flowers 4(-5)-merous, (2.5-) 4 (-5) mm long, on short, thickish pedicels. Calyx lobes ovate, obtuse, as long as or shorter than tube. Corolla campanulate, urceolate in fruit; lobes erect to spreading, triangular to ovate, usually obtuse. Hypostaminal scales usually 2-fid and sparsely fimbriate, sometimes almost absent. Stamens often included. Styles with stigma shorter than ovary. Capsules globose, conical or pyriform, capped by the detached corolla; seeds c. 1.5 mm.

Type: Not designated.

A-7 Merg: Uadi Umm el Anain, Parasitic on *Pistacia lentiscus*, 28.5.1922, A. Maugini (F1).

Also reported from Derna by Durand & Barratte (l.c.) and Barce by Pampanini (l.c.).

Distribution: Europe, W. Asia, N. Africa.

A species confined to the Gebel Akhdar area, and parasitic on *Pistacia lentiscus* etc. A rather robust one as compared to the following 2 species.

2. *Cuscuta epithymum* (L.) Murray in L., Syst. Veg. ed. 13: 140. 1774; Durand & Barratte, l.c. 166; Pampanini, l.c.; Keith, l.c. 409 (excl. syn.). (Fig. 1, F-1).

*C. europaea* var. *epithymum* L., Sp. Pl. 124. 1753; *C. kotschyi* Des Moulins, Etudes Org. Cusc. 56. 1853.

A rather thinner plant similar to the previous species but glomerules 5-10 mm in diam., calyx lobes acute or acuminate and style with stigma usually longer than ovary.

CUSCUTACEAE

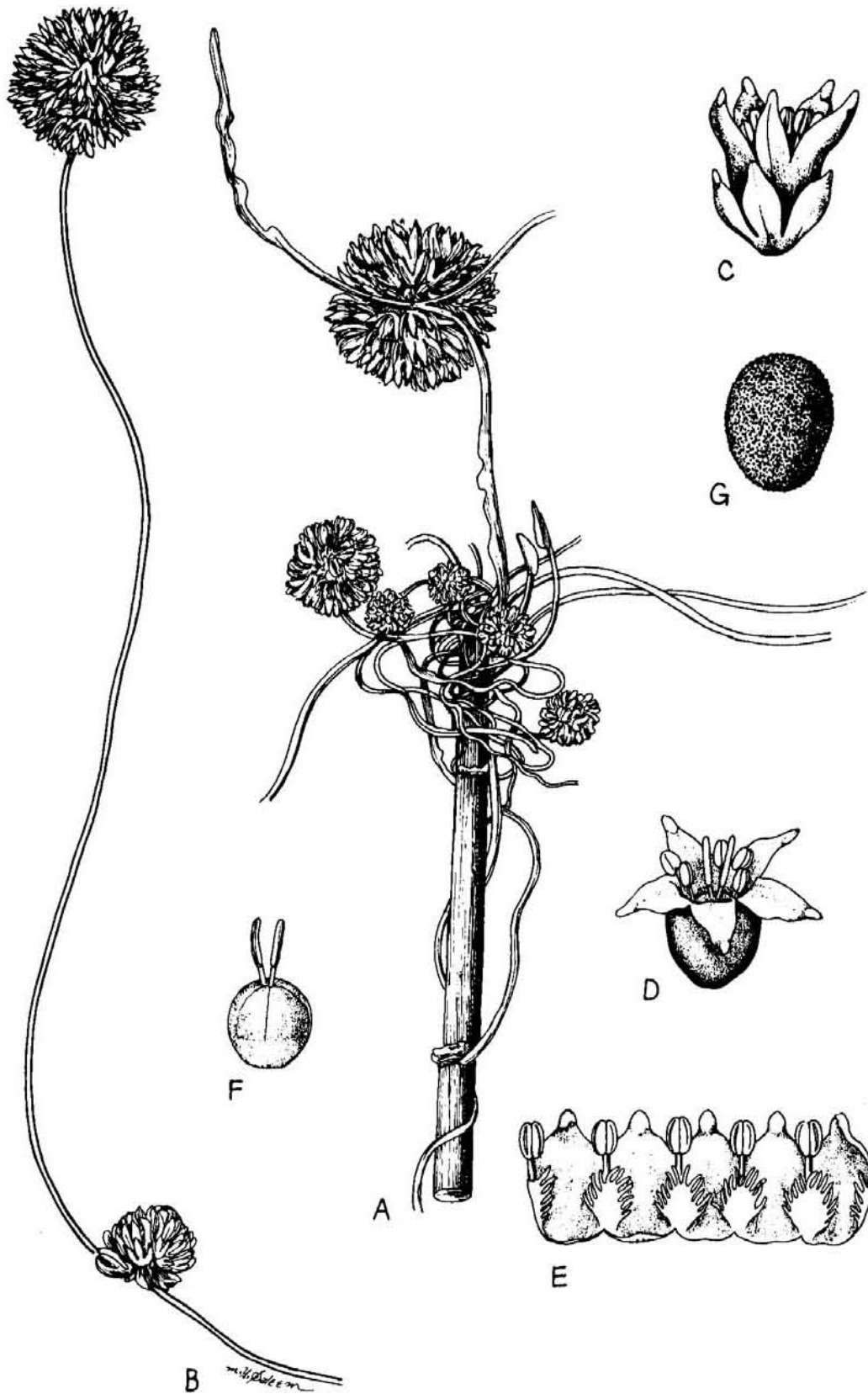


Fig. 2 *Cuscuta planiflora*: A, habit on a portion of the host plant x 5; B, stem with flowering glomerules x 5; C, flower x 10; D, flower with sepals removed x 10; E, corolla spread open to show stamens and hypostaminal scales; F, capsule x 10; G, seed x 20.

## CUSCUTACEAE

Flowers 5-merous, mostly sessile; corolla lobes spreading, usually shorter than the campanulate tube, triangular, acute or acuminate. Capsules enveloped by the corolla; seeds c. 1 mm long.  $2n=14$ .

Type: Described from Europe.

**A-6** Bengazi: Giocchi el Chebir (Leta), 9.3.1933, *R. Pampanini* No. 6266 (F1); Siret Karmu, 11.3.1933, *R. Pampanini* No. 6268 (F1); Zavia Mechili, 1920, *H. Scaetta* (F1); **A-7** Umm er-Rzem a sud est di Barce, 8.4.1933, *R. Pampanini* No. 6275 (F1). Also reported from Derna and Tobruk by Durand & Barratte (l.c.) and Pampanini (l.c.)

Distribution: same as that of the previous species.

Reported to be parasitic on *Artemisia* spp., *Sarcopoterium spinosum*, *Thymus* spp., *Medicago* sp., *Narcissus* spp. etc.

*Fl.* March-June.

**C. approximata** Bab. is reported from N. Africa and may be found in our area also. This has golden yellow flowers, more than 3 mm long, but hypostaminal scales similarly 2-fid as above.

3. **Cuscuta planiflora** Ten., *Fl. Nap.* 3: 250, tab. 220 fig. 3. 1829; Durand & Barratte, l.c. 166; Pampanini, l.c. 369; Keith, l.c. 409. (Fig. 2).

*C. sicula* Ten. ex Englem. in *Trans. Acad. St. Louis* 1: 466. 1859.

Stems slender, thin, usually pinkish or reddish in colour, with small, compact glomerules, 5-6 mm in diam. Flowers usually 1.5-2 mm long, 5-merous; calyx white or pinkish, deeply divided, as long as the corolla tube; lobes turgid,  $\pm$  semi-circular in transverse section, oblong, rarely ovate, exceeding the tube, often cucullate at apex. Hypostaminal scales oblong-suborbicular, usually reaching the stamens, shortly fimbriate. Style with stigma as long as the ovary. Capsules depressed-globose, enveloped by the corolla; seeds less than 1 mm long, ovate, granulate.

Type: Napoli, *Tenore*

## CUSCUTACEAE

**A-1** Wadi Malah, c. 10 km. from Nalut, 4.5.1972, *S. I. Ali* 255 (ULT); **A-2** Gebel Nafousa, 23.3.1971, *L. Boulos* 3500 and 3522 (ULT); Ain el Rumya, 10.4.1975, *Faua, G.* 338 (ULT). Tagma, 5 km from Yefren Radio Station, 9.4.1974, *S. El-Jalely* 197 (ULT); **A-3** Ras-el-Masen, c. 110 km from Tripoli, near limestone hillock, parasite pinkish, *S. I. Ali* 28 (ULT); Tarhuna, Abiar Melgah (Molgha) a sul Ras Ter, *D. & R. Pampanini/no* 1180 (F1).

Distribution: Mediterranean region (Hispania), N. Africa, Mauretania eastwards to Iran.

A species more common in the N. W. parts of Libya (Gebel Nafousa etc.); usually with very thin brownish stems when dried and smaller glomerules. It is reported to be parasitic on *Melilotus*, *Salvia*, *Lycium*, *Calycotome*, *Helianthemum*, *Thymus*, *Fumana Urgineu* species etc.

*Fl.* March-May. *Vern.* Harir Ezzaater

**Acknowledgement:** We are thankful to the authorities of FI for herbarium and library facilities.

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