

1. ECHIOCHILON

Desf., Fl. Atlant. 1:166. 1798.

Low shrubs or undershrubs, often diffused, villous or canescent. Leaves small, alternate. Inflorescence an axillary spike with sessile zygomorphic flowers. Calyx 5-partite up to the base; segments unequal. Corolla tube cylindrical, subincurved, throat villous inside, limb bilabiate, regular or irregular; upper lobe erect, spreading, shortly 2-lobed; lower lobe shortly 3-lobed, broadly spreading. Stamens 5, included; filaments $\pm$ short; anthers oblong, obtuse. Ovary 4-lobed; style filiform, included, gynobasic. Nutlets 4, ovoid, acute, smooth or somewhat tuberculate, with erect seeds.

A small genus with 6 species, distributed from North Africa to Arabia; represented by the following species in Libya.

Echiochilon fruticosum Desf., Fl. Atl. 1:167. tab.47. 1798; Durand & Barratte, Fl. Lib. Prodr. 171. 1910; Pamp., Pl. Trip. 194. 1914; Prodr. Fl. Cir. 384. 1931; Keith, Prelim. Check List Lib. Fl. 444. 1965; Tackh., St. Fl. Egypt ed. 2:445. 1974. (Fig. 1)

BORAGINACEAE

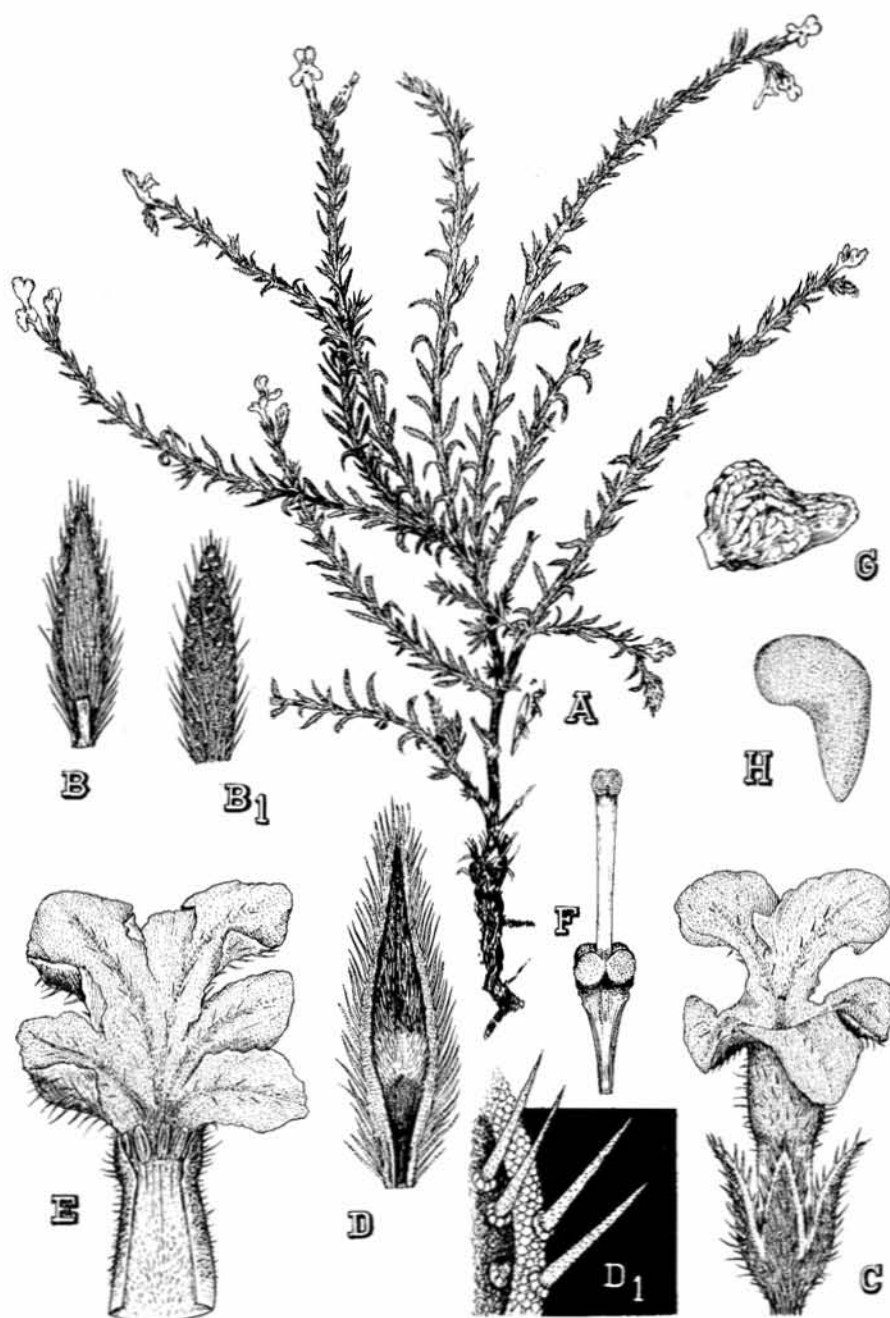


Fig. 1. ***Echiochilon fruticosum***: A, habit x 0.5; B1-B2, upper and lower surface of leaf x 6; C, flower x 6; D, calyx segment x 10; D1, hairs on calyx x 30; E, dissected opened corolla to show stamens x 6; F, gynoecium x 10; G, nutlet x 15; H, seed x 15.

BORAGINACEAE

A much branched shrub, up to 30 cm tall, appressed-canescens or hispid, with terete white barked stems. Leaves alternate, linear to oblong, hispid, 8-11 x 1-1.5 mm, obtuse, closely appressed below, spreading above. Inflorescence solitary axillary. Flowers sessile, blue or blue-violaceous. Calyx 5-parted, 2-3 x c. 1 mm at anthesis, subulate, hirsute, enlarged in fruit, up to 6 mm long, membranous at the margin, acute. Corolla bilipped, villous, upper lip 2-lobed, 8-3 x 5 mm, lower 3-lobed, 2 x 6 mm, lobes rounded; corolla tube 5-6 mm long, throat without scales. Stamens 5, included; anthers versatile, acute, c. 1 mm long; filaments short, inserted at the mouth of the tube. Stigma bilobed; style filiform, 2-2.5 mm long. Nutlets 4, $\pm$ ovoid, beaked, 1.5-2 x 1 mm, $\pm$ tuberculate; seed curved, glabrous.

Type: Described from North Africa.

A-2 Tellil Area, 8 km from Sabratha, limestone soil, fls. bluish, pinkish, 28.1.1978, *A. El-Gadi* 648; Kabau, bifurcation of 2 roads, one going to Jafren and other going straight to Nalut, stony mountain slope, fls. pink-violaceous, common, 29.3.1976, *S.M.H. Jafri* 6578; **A-3** c. 68 km from Tiji on way to Tripoli, 20-30 cm tall, base woody, corolla blue, 18.4.1975, *S.I. Ali & S.A. Faruqi* 2895; Sharshara, sandy soil, elevated region, procumbent, fls. blue, small linear leaves, 25.3.1975, *M.M. Zarmouh* 25; 2 km from Abouzian, 29.4.1976, *B.R. Fathi* 70; *ibid*, 29.4.1976, *A.M. Grud* 57; 8 km from Tripoli University, 25.12.1976, *B.R. Fathi* 71; Boghilan, c. 16 km from Garian, roadside, stony sandy soil, woody herb, c. 15 cm tall, fls. blue, buds pink, 6.4.1972, *S.I. Ali* 168; Fanduk Tugar, c. 32 km from Tripoli, sandy soil, 20 cm branches spreading pink buds turning blue, 6.4.1972, *S.I. Ali* 101; **A-7** Wadi El Mahbool, herb, erect, 10 cm, flowers violet, 1.3.1973, *A. El-Tiafe* 82; **B-2** Wadi Kabaw, steep valley, slope, sandy soil, prostrate, fls. light blue, 5.5.1972, *S.I. Ali & M.M. Khalifa*, 374; **B-3** Wadi El-Hera, 29.4.1976, hardy sandy soil, non-cultivated area, procumbent, $\pm$ 15 cm, blue fls., *M.M. Zarmouh* 85; *ibid*, 29.4.1976, *A.M. Dlango* 61; **B-4** 6 km from Sirte on way to Benghazi, 6.4.1977 *S.A. Alavi* 1263; **C-4** 130 km from Hun, basal branch thick, woody (base 1.5 cm thick), fls. pink turning violet, 2.4.1973, *S.I. Ali* 1577.

Distribution: A North African element extending up to Lebanon.

A very common species in the pre-desert areas of Libya, growing in sandy and gravelly habitats, reaching up to Hun and Ghadames in the South.

Fl. Almost throughout the year.

Vern. Lerga, Hidma, Sehizur el bill.