

## The Genus *Tamarix*

P, W, WU); *Korshinsky* 2928, Roshan near outlet of Bartanya on humid soil in valley (holotype of *T. turkestanica* f. *brachystachys* Litw. ex Gorschk., LE). UZBEK SSR: *Bommüller* 128, Prov. Samarkand ad ripas fluvii Serawschan prope pagum Gusar 1240 m, 18.7.1913 (B). KIRGHIZ SSR: *Igolkin* 527, Kirghizk Alatau Ig-Keletau ridge, Ulkun Kareka Canyon; stony bed of Tansl river 25.8.1931 (LE); *Iljin* 502, Talass Alatau, env. of Katmen-Tyubc, river Tshitsh-Kemu conglomerate 8.8.1930 (LE). IRAQ: *Regel* 9, Diyala Liwa, Baquba on the banks of the Diyala river 4.4.1956 (B); *Haussknecht*, ad ripas fl. Tigris pr. Mosul. 5.1067 (P). IRAN: *Brius* 898, Tcharan, Uscr des Djadje-Rud bei Gul-i-Djadjc 22.5.1909 (B); *Aucher-Eloy* 4911, Ghilan (BM, P); *Bunge*, pr. Chabbis 4.1852 (FI, L, LE, P); *Kotschy* 157, inter Abushir et Schiras (holotype of *T. florida* var. *kotschyi* Bge., P; isotypes BM G, K, OXF, S, W). AFGHANISTAN: *Giles*, South of Hindu Knsh 7000' (E); *Koelz* 12804, Iskarzir 8500 ft, river bed (E). PAKISTAN: *Siddiqui & Rahman* 26769, Ghitaral, Brimhret 30.7.1950 (UC). KASHMIR: *Stewart* 26462, Gilgit 16.7.1954 (UC).

Observations: (a) *T. karakalensis* var. *verrucifera* Freyn was based on a specimen with galls; thus, according to the rules, it is a nomen illegitimum. (b) The type of *T. turkestanica* Litw. f. *brachystachys* Litw. ex Gorschk. is mounted on one sheet together with the type of *T. turkestanica* Litw.

### 2. *T. gallica* L., Sp. Pl., 1:270 (1753), p. maj. p., excl. syn. Bauh., Pin., 485 (1623) [Plate II]

*T. anglica* Webb, Hooker J. Bot., 3:430 (1841).

*T. algeriensis* Hort., Hand-List Trees Kew, 1:35 (1894), pro syn.

*T. pedemontana* Savy ex Gaud., Nov. Consp. Fl. Eur., 190 (1910), pro syn.

*T. esperanza* Pau & Villar var. *majoriflora* Pau & Villar, Broteria Bot., 23:101 (1927).

*T. matritensis* Pan & Villar, op. cit., 105.

*T. brachylepis* Sennen, Butl. Inst. Catal. Hist. Nat., 32:90 (1932).

*T. gallica* L. var. *brachylepis* (Sennen) Sennen, loc. cit.

Tree, often shrubby, up to 8 m high, with blackish-brown to deep purple bark, entirely glabrous. Leaves sessile with narrow base, 1.5–2 mm long. Inflorescences loosely compound. Racemes 2–5 cm long, 4–5 mm broad. Lower bracts of vernal racemes oblong, with apices blunt with point, others narrowly triangular, acuminate, with usually more or less irregularly denticulate margins, longer than pedicels but not exceeding calyx. Pedicels usually somewhat shorter than or as long as calyx. Calyx pentamerous. Sepals trullate-ovate to ovate, acute, entire or subentire; the outer 2 somewhat smaller, slightly keeled, the inner somewhat longer and more obtuse, 0.75–1 mm long. Corolla pentamerous, caducous. Petals elliptic to slightly elliptic-ovate, 1.5–1.75 mm long. Androecium haplostemonous, of 5 antesepalous stamens; insertion of filaments peridiscal; disk synlophic; nectariferous tissue poor, i.e., torus almost membranous.<sup>9</sup>

<sup>9</sup> In *T. canariensis*, which is closely related to *T. gallica*, there is more nectariferous tissue on both sides of the filaments and the disk tends to be paralipophilic.

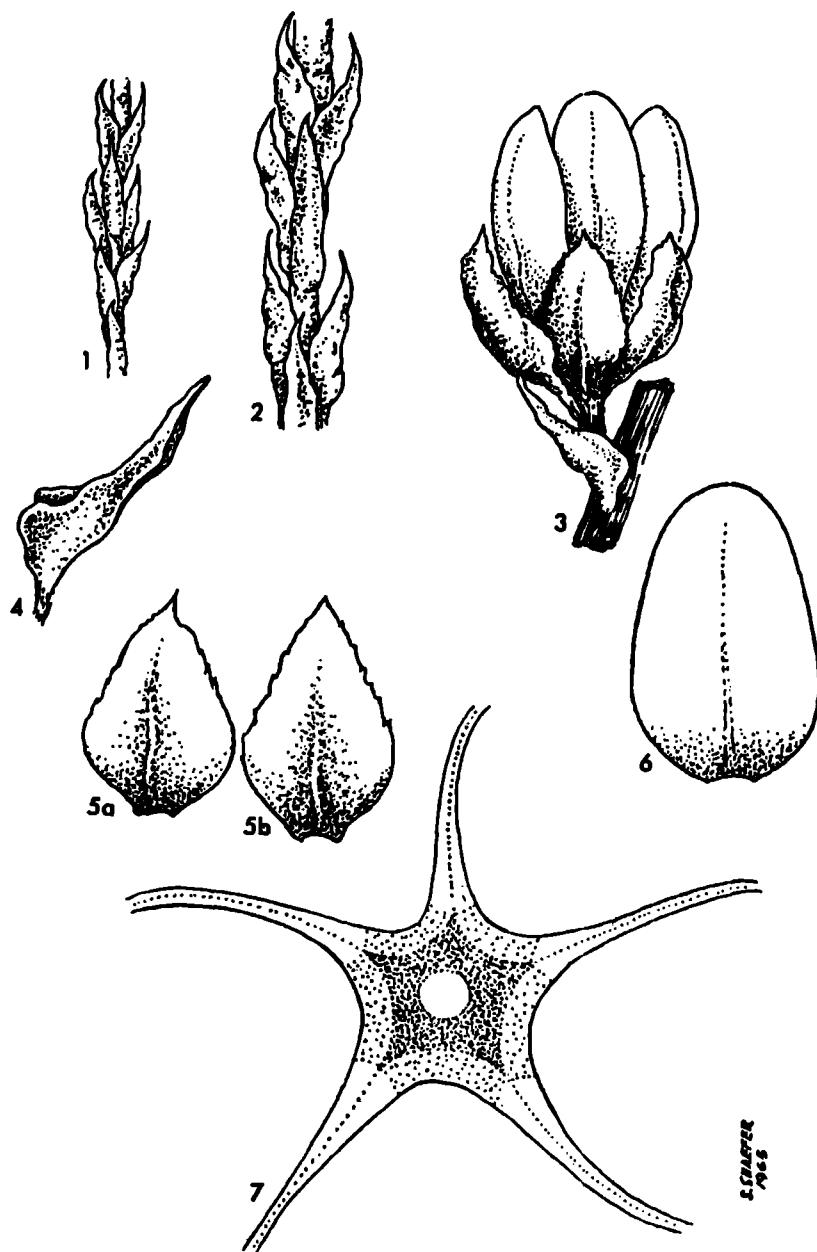


Plate II *T. gallica*

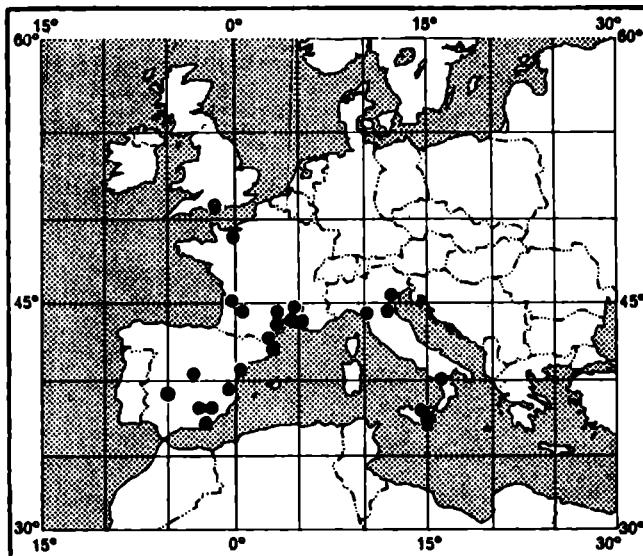
1. Young twig ( $\times 5$ ); 2. id ( $\times 10$ ); 3. Flower ( $\times 10$ ); 4. Bract ( $\times 20$ );
- 5a. Outer sepal ( $\times 20$ ); 5b. Inner sepal ( $\times 20$ ); 6. Petal ( $\times 20$ );
7. Androecium ( $\times 30$ ).

# The Genus *Tamarix*

Flowering: April to September.

Habitat: Humid places near the sea-shore, mostly banks of rivers.

Distribution: France, Spain (Spanish Morocco), Sicily, Italy, Switzerland (see Map 2).



Map 2: *T. gallica*

Selected specimens: FRANCE: Steinheil, Gall. merid. Narbonne (B); 'Tamarix gallica' (lectotype of *T. gallica* L. in Hortus siccus Cliffortianus, BM); *T. narbonensis* in Herb. Lamarck (lectotype of *T. anglica* Webb, P); Delacour 3305, Avignon (Vaucluse) alluvions de la Durance à son confluent avec le Rhône 7.6.1881 (B, G, P); Hardouin & Renou 139, Calvados Embouchure de l'Orne, commune d'Ouistreham, bords des fosses 21.7.1853 (FI, G, K, P, S); Cernat 57, Alpes Maritimes, Embouchure du Var 25.6.1863 (G, P, US, W). SPAIN: Pau & Villar, 78905, Vaciamadrid (Madrid) Tamaricetum in vega juxta vicum 22.6.1926 (holotype of *T. esperanza* var. *majoriflora* Pau & Villar, MA); Pau & Villar, ad ripas fl. in Valle de Belmez, versus 1000 m 4.6.1925 (holotype of *T. matritensis* Pau & Villar, MA); Sennen 7017, Barcelone Castelldefels, marges 16.5.1929 (holotype of *T. brachylepis* Sennen, MA; isotypes FI, G, W); Reverchon 1115, Province Almeria Velez-Rubio lieux ombrages et frais sur le calcaire, .6.1899 (P, PRC, W, WU); Rodrigues Lopes 41, Costa Brava (Catalonia) 3-4 km in dir. or. a pago Roseas prope Canjellas grandes et C. petites 1.7.1961 (U); H. del Villar 8119, Nile, Castille Vega del Jarama et de Vaciamadrid 29.6.1931 (MA). SPANISH MOROCCO: Font Quer 393, pr. Axdir ad ripas fl. Gius (Littore Chiphaco) 15.5.1927 (FI); Sennen & Mauricio 9369, Ismoar, sources, ruisseaux (Benic Siar) 3.6.1934 (RAB). SICILY: Todaro 787, Sicula in arenosis inundatis maritimis Terranova presso il fume Zapulla (FI, K, OXF, P, S, U). ITALY: Dr Polch 96, in salsuginosis maritimis insula Lido prope Venetiam dumetum efformans .8.1842 (syntype of *T. gallica* var. *virgata* Bge., W); Krause 201, Begroeide zandige kust van de Adriatische Zee bij Marina di Ravenna (Emilia) even ten N. van Garibaldi kanaal 11.9.1953 (U); Minio, Venezia 30.5.1942 (FI); Moricand, bords de la mer Livorne 1834 (FI, G, US). SWITZERLAND: Lachenal, in Helvetia (syntype of *T. gallica* var. *virgata* Bge., W).

*Gallicae: T. korolkowii*

- Observations: a. *T. gallica* seems to be introduced in southern England. b. The author was able to see many voucher specimens of *T. anglica* Webb in K and FI.
- c. Typification of *T. gallica*: Linnaeus' protologue and syntypes of *T. gallica* are:
1. Hort cliff. 111, which the author was able to see in London (BM);
  2. Roy. Lugdb. 436, which is in L and which the author did not see. According to W. T. Stearn, there is a great probability that the Van Royen specimen is identical with the Hortus Clifffortianus one because of the closeness of time and material between the two;
  3. Sauv. monsp. 45: the specimen does not exist;
  4. Hort. Ups. 69: the author was able to see two specimens in Stockholm (S): one in the general herbarium with a mark 'Hort. Ups. 1.69.1', another which has some citations on the back of the sheet, in Linnaeus' special herbarium. According to Prof. Norlindh (personal communication) the citations were written by Dr Montin, who received specimens from Linnaeus' private gardener at Uppsala. Among other remarks, Dr Montin wrote on this sheet of *T. gallica* 'Specimen ex horto upsalicensi'. Both Dr Montin's specimen and the one in the general herbarium are identical with that in Hortus Clifffortianus;
  5. Mat. med. 154 consists only of text and is not accompanied by a type specimen;
  6. Bauh., Pin., 485, which the author was able to see in Burser's Hortus siccus at Uppsala (UPS). This specimen is an aestival inflorescence of *T. africana* Poir.;
  7. Lob. ic. 211: from the drawing alone it is difficult to identify the species. The author was unable to find Lobel's topotype.

From the above-mentioned seven syntypes the author has chosen the one from *Hortus siccus Clifffortianus* as the lectotype of *T. gallica* L.; the others become automatically paralectotypes. It is now possible that the specimen in the Stockholm General Herbarium is an isoparalectotype. Another isoparalectotype might be the specimen No. 383.1 of the Linnaean herbarium at LINN; indeed, a number of Linnaean specimens of this herbarium were taken from Uppsala (W. T. Stearn, personal communication). The only paralectotype which should be excluded from the list is Bauhin's specimen. From Lobel's drawing alone no conclusion can be drawn. Another specimen of interest in the Stockholm General Herbarium is one identified by the son of Linnaeus, in his own handwriting, as *T. gallica*, and which the author could identify as an aestival inflorescence of *T. africana*.

- d. See also observation (b) on *T. africana*.
- e. The occurrence of *T. gallica* in Spanish Morocco is doubtful. The author regards most of the alleged *T. gallica* material which he saw from this area as *T. canariensis*. More and better material is needed to solve this problem.
- f. See observation (a) on *T. canariensis*.

3. *T. korolkowii* Regel & Schmalh. ex Regel, Acta Horti Petrop., 5:582 (1877), ('korolkowi' orth. mut.) [Plate III]

*T. florida* Bge. var. *albiflora* Bge., Tentamen, 38 (1852).

*T. montana* Korn., Trav. Soc. Nat. St. Pétersb., 26:142 (1896).

*T. turkestanica* Litw., Trav. Mus. Bot. Acad. St. Pétersb., 7:72 (1910).