

PORTULACACEAE

TALINUM PANICULATUM, A NATURALIZED WEED IN SOUTH AFRICA

Talinum Adans. is a medium-sized genus of semi-succulent herbs and shrubs with annual branches sprouting from a perennial base with tuberous roots. These fleshy underground parts tend to draw the attention of succulent plant collectors, who would include the plants in the broadly conceived group of caudiciform succulents (Smith *et al.* 1997). About 50 species are recognized in

Talinum (Von Poellnitz 1934), occurring mostly in Africa, Australia, parts of Asia and North and South America. In the African species the pedicels are always swollen below the fruit and are more or less recurved when fruiting (Tölken 1969). Five species are indigenous in South Africa, restricted to summer rainfall areas (Tölken 1969). *Talinum paniculatum* (Jacq.) Gaertn. is



FIGURE 4.—*Talinum paniculatum*: A, habit of plant in fruit, $\times 0.6$; B, open flower as seen from above, $\times 5$; C, flower in side view with one petal removed, $\times 5$; D, capsular fruit $\times 3.7$; E, dissected capsule showing multiple seeds with free-central placentation, $\times 3.7$. Artist: Marietjie Steyn.

one of two alien species of Portulacaceae that has become naturalized in the flora of southern Africa (Jordaan 1997). This report forms part of ongoing efforts to document, describe and illustrate naturalized succulents in southern Africa.

Known as 'American star-flowers' or 'pink star-flowers', *T. paniculatum* is native to the plains from Texas to Arizona, south and central Florida, Mexico, the West Indies and South America (Gray 1895; Von Poellnitz 1934). Its occurrence in Sri Lanka and in Malaysia (Singapore), Indonesia (Java), Thailand and China, probably resulted from early cultivation and a subsequent escape into the wild (Von Poellnitz 1934). In South Africa, the species was recorded about thirty years ago as a garden escape in a few places, but did not then seem to spread as a weed (Tölken 1969). It has since become established as a troublesome weed in domestic and pub-

lic gardens in and around Pretoria and along the Western Cape coast with its Mediterranean-type climate. The plants are not easy to eradicate; although the aerial parts tend to die off in winter, the species is perennial through a thickened rhizome and fleshy roots (Figure 4). It also flowers and fruits prolifically and produces a multitude of wind-dispersed microscopic seeds that spread and germinate easily.

2406000-600 *Talinum paniculatum* (Jacq.) Gaertn., *De fructibus et seminibus plantarum* 2: 219, t. 128 (1791); Poelln.: 1 (1934); Adams: 267 (1972). Type: not designated.

Portulaca paniculata Jacq.: 22 (1760) non L.: 640 (1762); Jacq.: 148 (1763); Jacq.: 71, t. 151 (1772-1773).

Portulaca patens L.: 242 (1771); *Ruclingia patens* (L.) Ehrh.: 135 (1788); *Helianthemoides patens* (L.) Med.: 95 (1789); *Talinum patens* (L.) Willd.: 863 (1799); A.Gray: 265 (1895); *Claytonia patens* (L.) Kuntze: 56 (1891). Type: not known.

T. reflexum Cav.: 1, t. 1 (1791); Sims: t.1543 (1813); *Portulaca reflexa* (Cav.) Haw.: 141 (1803); *Claytonia reflexa* (Cav.) Kuntze: 57 (1891). Type: not known.

T. sarmentosum Engelm.: 153 (1850); *Claytonia sarmentososa* (Engelm.) Kuntze: 57 (1891); *T. reflexum* var. *sarmentosum* (Engelm.) Small: 415 (1903); *T. paniculata* var. *sarmentosum* (Engelm.) Poelln.: 123 (1933). Type: not known.

For a more complete list of synonyms, see Von Poellnitz (1934: 11).

Glabrous herb with annual branches developing from perennial base with tuberous roots. *Stems* erect, terete, up to 0.4 m long. *Leaves* alternate to subopposite, petiolate, glabrous, somewhat succulent; blade obovate or oblanceolate, varying to spatulate, 40-110 \times 15-45 mm, apex acute to rounded, margins entire; petiole swollen at base; exstipulate. *Inflorescence* terminal, panicle-like, compound, dichasial, up to 450 mm long; bracteoles minute, ± 1 mm long, membranous, lanceolate, early deciduous. *Flowers* bisexual, star-shaped, ± 2.5 mm diam., opening mid-afternoon, closing at dusk; pedicels filiform, ± 3.5 mm long. *Sepals* 2, opposite, green, glabrous, 1 mm long, acuminate, recurved in open flower. *Petals* 5, oblong with rounded apices, spreading, pink to rose-coloured, tardily deciduous from capsule. *Stamens* numerous, ± 1.5 mm long; filaments dorsifixed; anthers opening with slits. *Ovary* superior, spherical, 1 mm diam., unilocular, multi-ovular, placentation free-central; style terete, articulating at base; stigma with 3 spatulate lobes. *Capsule* spherical, 2.5 mm diam., thin-walled, bright orange when young, turning to brown during ripening, opening with 3 longitudinal slits. *Seeds* numerous, lens-shaped, 0.8-0.9 mm long, short-beaked with small, white aril at hilum, seed coat shiny black, tuberculate. Figure 4. *Chromosome number* unknown. *Flowering time*: September to April.

Vouchers: Barker 4439 (PRE); Barrett 333 (PRE); Pegler 1587 (PRE); G.F. Smith & E.M.A. Steyn 4 (PRE).

Illustrations: Jacq.: t. 151 (1772-1773) as *P. paniculata*; Cav.: t.1 (1791), as *T. reflexum*; Sims: t. 1543 (1813), as *T. reflexum*.

Common names: American star-flower (Von Poellnitz 1934: 1) or pink star-flower (Gray 1895).

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