

JUNCAGINACEAE (C. G. G. J. van Steenis, Buitenzorg)

1. TRIGLOCHIN

LINNÉ, Sp.Pl. (1753) 338; BUCH. Pfl.R. 16 (1903) 7.—*Cycnogeton* ENDL. Ann. Wien. Mus. 2 (1838) 210; Gen. Suppl. 1. (1848) 1369; HUTCH. Fam. Fl.Pl. 2 (1934) 38; *pro sect.* BTH. Fl. Austr. 3 (1878) 165.

Glabrous, annual or perennial herbs. Leaves *distichous*, radical, entire, linear, with a sheath. Inflorescence terminal, spicate or racemose. *Flowers* bisexual, actinomorphic, small, inconspicuous, mostly green. Perianth segments 6, conchiform. Stamens 6 (or partly reduced), epi-tepalous. Anthers sessile, extrorse, cells 2. *Carpels* 6, or less by abortion, free or united, or partly free; ovule 1 per cell, basal, erect; style mostly absent. Pericarp dry. Seed exalbuminous, embryo straight.

Distr. Cosmopolitan, the majority of the *ca* 15 *spp.* known from the S. hemisphere. The Malaysian species is the only one of *subg.* *Cycnogeton* (ENDL.) BUCH., distinct by entirely free carpels.

Ecol. Predominantly in marshy localities, or in the water; some *spp.* in semi-arid countries.

Notes. The family is sometimes called *Scheuchzeriaceae*, but *Juncaginaceae* has priority. It centers in the S. hemisphere, specially in the S. Pacific. HUTCHINSON (Fam. Fl.Pl. 2 (1934) 36, 38) has removed *Scheuchzeria* from *Junc.* to a separate family in a separate order on account of bracteate pedicels.

Only one species is hitherto reported from Malaysia:

1. *Triglochin procera* R.BR. *var. dubia* (R.BR.) BTH. Fl. Austr. 7 (1878) 168; BUCH. Pfl.R. 16 (1903) 14; STEEN. J. Agr. Arb. 28 (1947) 419.—*T. dubia* R.BR. Prod. (1810) 343.—*T. linearis* ENDL. Pl. Preiss. 2. (1846/7) 54.—*T. procera* R.BR. *var. gracilis* MICHELI in DC. Mon. Phan. 3 (1881) 108.—Fig. 1.

Perennial, 30–50 cm long; rhizome short, roots partly thickened and ending in globular tubers 2–3 cm across. Culms terete, solid, sheaths at the base surrounded by the fibrous remains 1–2 cm long of the nerves of former leaves. *Leaves* ± as long as the culms, 1–3 mm broad. Spike multiflorous, rather lax and relatively few-flowered, 1½–2, in fruit up to 7 cm long. *Flowers* sessile, ebracteate, towards fruiting gradually pedicelled. Stamens 6, distinctly in 2 rows, 1 mm long, very broad, slightly shorter than the erect oblong 1½–2 mm long tepals rounded at the apex. *Carpels* mostly 3, the slightly curved outwards directed stigmatic apices protruding distinctly above the anthers; stigmas large oblique, linear, grooved. *Nuts* mostly 3, rarely 4, or 1–2, small, 7–9 mm long, linear-oblong mostly subfalcate, 1½–2½ mm pedicelled, erect.

Distr. Australia and Tasmania to *SE. Malaysia*: Wassi Kussa area in S. New Guinea, at low alt.

Triglochin belongs to a series of (sometimes world-wide) spread genera, both occurring in Australia and Asia but absent or exceedingly scarce in Malaysia, as *e.g.*: *Aldrovanda*, *Alisma*, *Anagallis*,

pumila, *Astragalus*, *Callitriche*, *Eryngium*, *Glossostigma*, *Leptocarpus*, *Limonium*, *Oxalis*, *Parietaria*, *Philydrum*, *Plantago*, *Rothia*, *Tenagocharis*, *Tragus*, *Villarsia*, and *Zannichellia*.

Ecol. Savannah forest, common in streams which contain water only during the wet season, locally massed. Roots partly swollen into edible terminal tubers. Hardly an aquatic plant. *Fl.* Dec.–Jan.

Notes. The species is more robust than the variety: length ± 1 m, leaves 4–10 mm broad, spikes denser, gynoeceum less reduced. The variety moreover occupies a peculiar habitat, and seems to represent an ecotypic raiation. HUTCHINSON *l.c.* recognizes *Cycnogeton* as a separate genus by its free carpels; some other *spp.* of *Triglochin* occupy an intermediate position.

Excluded

Scheuchzeria palustris MIQ. Ill. Fl. Arch. Ind. (1870) 48; MICHELI in DC. Mon. Phan. 3 (1881) 95; BUCH. Pfl.R. 16 (1903) 15; STEEN. Bull. J.B.B. III, 13 (1934) 221.—*Sch. asiatica* MIQ. Fl. Ind. Bat. 3 (1855) 243; Suppl. (1860) 35; KOORD. Exk. Fl. Java 1 (1911) 91.—In the Leyden Herbarium is a sheet of which the origin is doubtfully given as 'Java', and said to be collected by KORTHALS. Interchange of labels is probably the cause of this erroneous record.