



*G. chinensis* (Lour.) Orchard subsp. *chinensis*

A low spreading perennial herb up to 30 cm tall; stems decumbent. All vegetative parts with sparse adpressed hairs. Leaves sessile or with petioles to 1 mm long; blades linear to narrowly lanceolate, 8-22 mm long, 1-6 mm wide, base truncate to cordate. Inflorescences spicate, borne terminally and in the axils of the upper leaves; bracts narrow triangular to lanceolate, c. 1.5 mm long. Pedicels c. 0.2 mm long; bracteoles linear, 0.5-0.8 mm long. Sepals brown, narrow triangular, c. 0.8 mm long, glabrous, with a small median basal callus. Petals pink, 1.5-2 mm long. Anthers yellow. Fruit shortly pedicellate, silvery grey, sub-globular, c. 1 mm long, 8-ribbed, with 1-2 irregular calli arising obliquely from the ribs. Flowering and fruiting: Apr - Sept. Fig. 38

In Australia, found in the northern NT and Kimberley, also extending through Malesia and southern China. Rare in the DR, where known only from one collection made near the Adelaide R. last century. Locally, this species grows in sandy soils in damp situations. Another taxon, *G. chinensis* subsp. *verrucosus* (Maiden & E.Betche) Orch. occurs along the east coast, and as an introduced weed in Hawaii.

*G. leptothecus* (F.Muell.) Orchard

An annual or perennial subshrub to 1 m tall, with erect stems. All vegetative parts scabrous with erect hairs. Petioles 0-4 mm long. Leaf blades concolorous, lanceolate, elliptic to narrow-elliptic or spatulate, 11-47 mm long, 4-19 mm wide. Inflorescences of terminal leafy panicles; bracts lanceolate to narrowly ovate, 2.5-4 mm long, 0.5-1 mm wide. Pedicels c. 1 mm long; bracteoles at base of pedicel, stramineous, c. 1 mm long, with glandular hairs borne on the irregular marginal teeth. Sepals green, broadly triangular, c. 0.8 mm long, glabrous. Petals pink to green, linear, c. 2.5 mm long. Anthers pink. Fruit pale brown, cylindrical, 1.5-2 mm long with 4, 3-5-angled tubercles between pairs of ribs. Flowering and fruiting: Feb - July (Nov). Fig. 38

Widespread and common north of 17°S latitude, from the Qld Gulf Region to the Kimberley. Uncommon in the DR where it is known from Melville Is., Pine Creek and the Litchfield area. Found growing in sandy-surfaced soils in a variety of habitats from swamps to rocky slopes and sandstone plateaus.

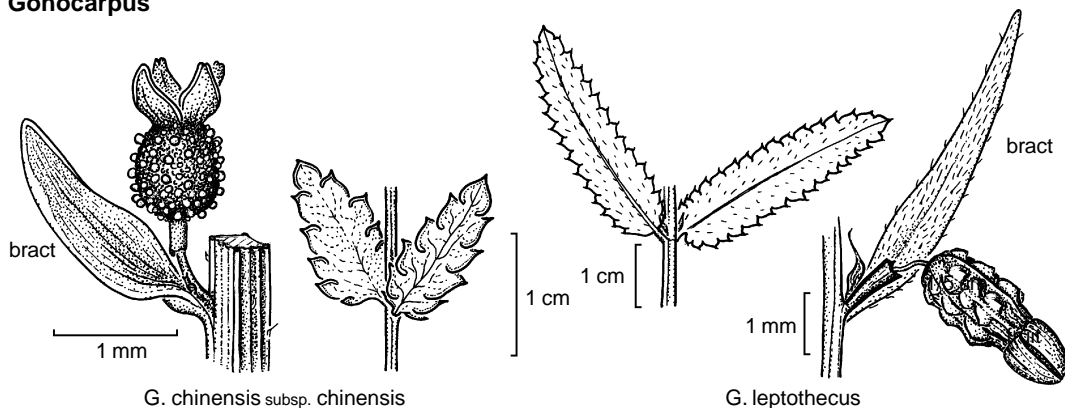
**Gonocarpus**

Fig. 38

**MYRIOPHYLLUM L.**

Annual or perennial emergent aquatic herbs affixed to sediments by roots from the lower nodes. Stems often reddish in emergent parts. All parts glabrous. Leaves dimorphic; submerged leaves pectinately divided, emergent leaves entire or serrate. Inflorescences simple. Flowers unisexual or bisexual, solitary in the axils of emergent leaves, sessile, sometimes one or both whorls absent. Petals pink. Ovary of 4 carpels; stigmas capitate, fimbriate. Fruit variously ornamented, splitting at maturity into 4, 1-seeded mericarps.

An almost cosmopolitan genus of c. 60 species, with a major centre of diversity in Australia. Six species are known from the NT, with 2 occurring in the DR. Often commonly known as Water Milfoil.

- 1. Emergent leaves toothed in upper half, intermediate leaves absent; flowers bisexual; mericarps flattened with longitudinal wings extending down the dorsal surface ..... *M. muricatum*
- 1. Emergent leaves entire, divided, intermediate leaves often present; monoecious with male flowers in upper axils and female below; mericarps cylindrical, tuberculate in lower half ..... *M. trachycarpum*

*M. muricatum* Orchard

*M. tuberculatum* Roxb., misapplied name

Stems c. 4 mm diam. with roots only at base. Submerged leaves in sometimes irregular whorls of 4-6, finely pectinate, 25-50(70) mm long, 20-40 mm wide with numerous filiform pinnae 6-25 mm long. Emergent leaves irregularly arranged to almost in whorls, linear to narrowly oblanceolate, 7-20 mm long, 1-1.5 mm wide, toothed in upper half, acute. Flowers bisexual, solitary in the axils of emergent leaves. Bracteoles brown, c. 1 mm long, linear. Sepals minute, orbicular. Petals thin, c. 2 mm long, persisting to early stages of fruit development. Anthers on a short filament about as long as the petals. Ovary 4-angled (ribbed), minute. Fruit globular, c. 2.5 mm long, square in cross-section with longitudinal wings extending down the dorsal surface of each mericarp, mericarps flattened semi-circular, each with a ± inflated membranous exocarp which weathers to reveal the numerous short woody spines of the endocarp. Flowering and fruiting: Feb - Oct. Fig. 39

Found in the NT north of 13°S and also in subcoastal central and northern Qld. In the DR known from Fogg Dam and the Reynolds River. Grows in permanent billabongs and seasonally inundated swamps in water to 1 m deep. Closely related to the Indian species *M. tuberculatum* Roxb. to which collections from the NT had previously been referred.

*M. trachycarpum* F.Muell.

Stems often red in emergent parts, yellowish-green in submerged parts. Leaves irregularly arranged. Submerged leaves often appearing to be in whorls of 4-5 or scattered along the stem, pectinate, 10-25 mm long with numerous filiform pinnae to 17 mm long arranged irregularly along a slender rachis. Emergent leaves alternate, reddish, linear to oblanceolate, 2-12 mm long, 0.4-1.5 mm wide, entire, apex blunt with reddish gland. Transitional leaves present, serrate to pinnate, sometimes longer than emergent leaves. Flowers monoecious, solitary in the leaf axils; upper flowers male, lower female. Bracteoles linear, 0.6-0.7 mm long. Male flowers lacking sepals. Petals linear, becoming reflexed after anthesis, c. 2.5 mm long, persistent. Female flowers lacking sepals, petals and stamens. Ovary pink, cylindrical, c. 0.6 mm long; stigmas white. Mericarps reddish, cylindrical, c. 1 mm long, 1 mm diam., bases rounded, covered in the lower 2/3 with tubercles, with oblique slightly flared apices. Flowering and fruiting: Apr - July. Fig. 39

An Australian endemic, found in the Kimberley and the Top End of the NT. In the DR it is known from lagoons close to Darwin. Typically growing in shallow sandy creek channels associated with sandstone, but occasionally in lowland lagoons on sand or clay.

**Myriophyllum**

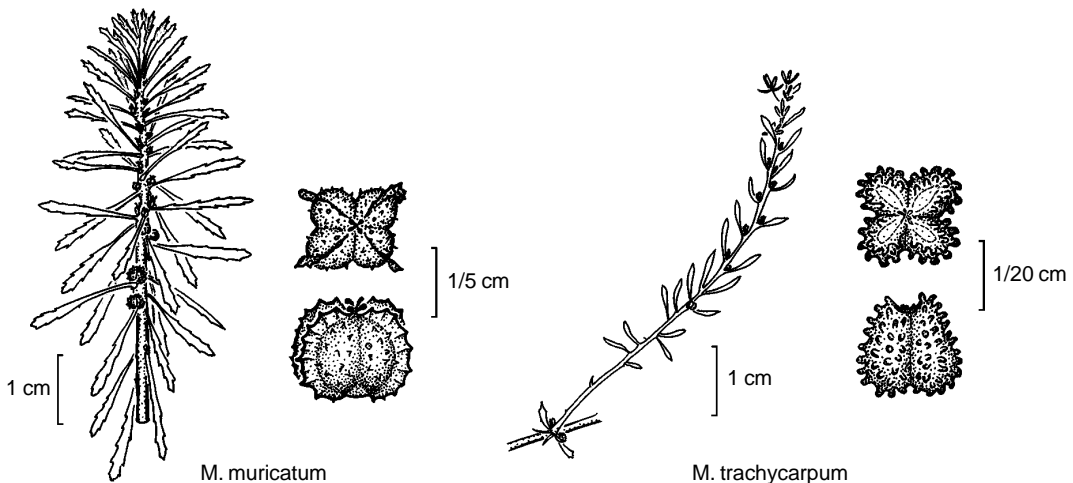


Fig. 39