MANGROVES OF THE NORTHERN TERRITORY, AUSTRALIA:

IDENTIFICATION and TRADITIONAL USE

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DARWIN 2006

Sesuvium AIZOACEAE

DERIVATION: *Sesuvium* possibly in reference to the Sesuvii, a Gallic tribe which lived in Roman Gaul, why this name is used for a tropical and subtropical plant is uncertain.

A genus of six species, one a Galapagos Island endemic, four from the Angolan region, and *S. portulacastrum*, a pantropical littoral plant that occurs in NT tidal areas.

Sesuvium portulacastrum (L.) L. **Sesuvium**

DERIVATION: The name *portulacastrum* refers to this species resemblance to the genus *Portulaca*.

DESCRIPTION: Spreading or prostrate perennial herb, succulent, glabrous; stems smooth, rooting at nodes, to 1 m long. Leaves opposite, linear, lanceolate or oblanceolate, fleshy, 25–70 x 5–15 mm, apex blunt, base connate. Flowers axillary, solitary; pedicels 3–15 mm long. Perianth tube 3 mm long; lobes 5, pink, triangular, 6–9 mm long, margins scarious; dorsal mucro behind apex 1.5 mm long. Stamens numerous; filament 6 mm long; anther 2-celled. Ovary superior, ovoid; locules 3, ovules 2–10 per locule; placentation axillary; styles 3(4), 4 mm long. Capsule circumscissile, obovoid, smooth, 8 mm long. Seeds several, pea-shaped, 1.5 mm diameter, smooth, black.

HABITAT: *Sesuvium portulacastrum* occurs along landward margins of mangals, on mud-flats and sand dunes in areas that are irregularly inundated by tide. Substrates of sands and muds are colonised. Associates include *Avicennia marina*, *Ceriops australis*, *Lumnitzera racemosa* and other halophytic coastal plants.

DISTRIBUTION: *Sesuvium portulacastrum* is widespread around the entire NT coastline. This species also occurs in Western Australia, Queensland and New South Wales; extra-Australian distribution is pantropical.

DISTINCTIVE FEATURES: Prostrate fleshy herb with conspicuous pink flowers.

ETHNOBOTANY: Anindilyakwa children use the fleshy leaves in counting games (Levitt 1981). Rirratjingu people report that the stems are eaten by mud crabs (*Scylla serrata*), which also sometimes make burrows under the prostrate stems of this species (Yunupingu et al. 1995). The Iwaidja name for this plant refers to the occasionally milky sap produced when the stems are damaged (Blake et al. 1998).

Recorded Aboriginal language names

Alungkwarnarrinarra(Anindilyakwa)
Birrkpirrknganing (Rirratjingu)
Birrkpirrknganing (Djambarrpuyngu)
Birrkpirrknganing (Yolngu Matha)
Yandjukyandjuk (Iwaidja)

The fleshy leaves of *S. portulacastrum* have been utilised as a food source by Aboriginals (Cribb & Cribb 1981), though repeated washing and cooking is necessary to disperse salt and an unpleasant aftertaste. Leaf edibility is also reported from Malaysia and Indonesia. Unprocessed leaves have a pleasant salty taste, with younger leaves being tastier.

This species is reported to have been eaten by Lieutenant (later Captain) James Cook and the crew of the HM Barque *Endeavour*, whilst repairs were undertaken at the Endeavour River, Queensland.

NOTES: *Sesuvium portulacastrum* produces flowers and fruit year round, however, fertility peaks from April to October. Fruit set follows shortly after flowering. The perianth (pink petal-like) segments close at night and during cloudy periods.

Flowers show strong protandry (Primack et al. 1981), which strongly limits self-pollination. Small pollen collecting bees (*Trigona hockingsi*) visit flowers of *S. portulacastrum* in Queensland, day flying moths visit flowers in the NT and are likely pollinators. The small black seeds of *S. portulacastrum* lack buoyancy (Guppy 1906) and are not suited to water dispersal.

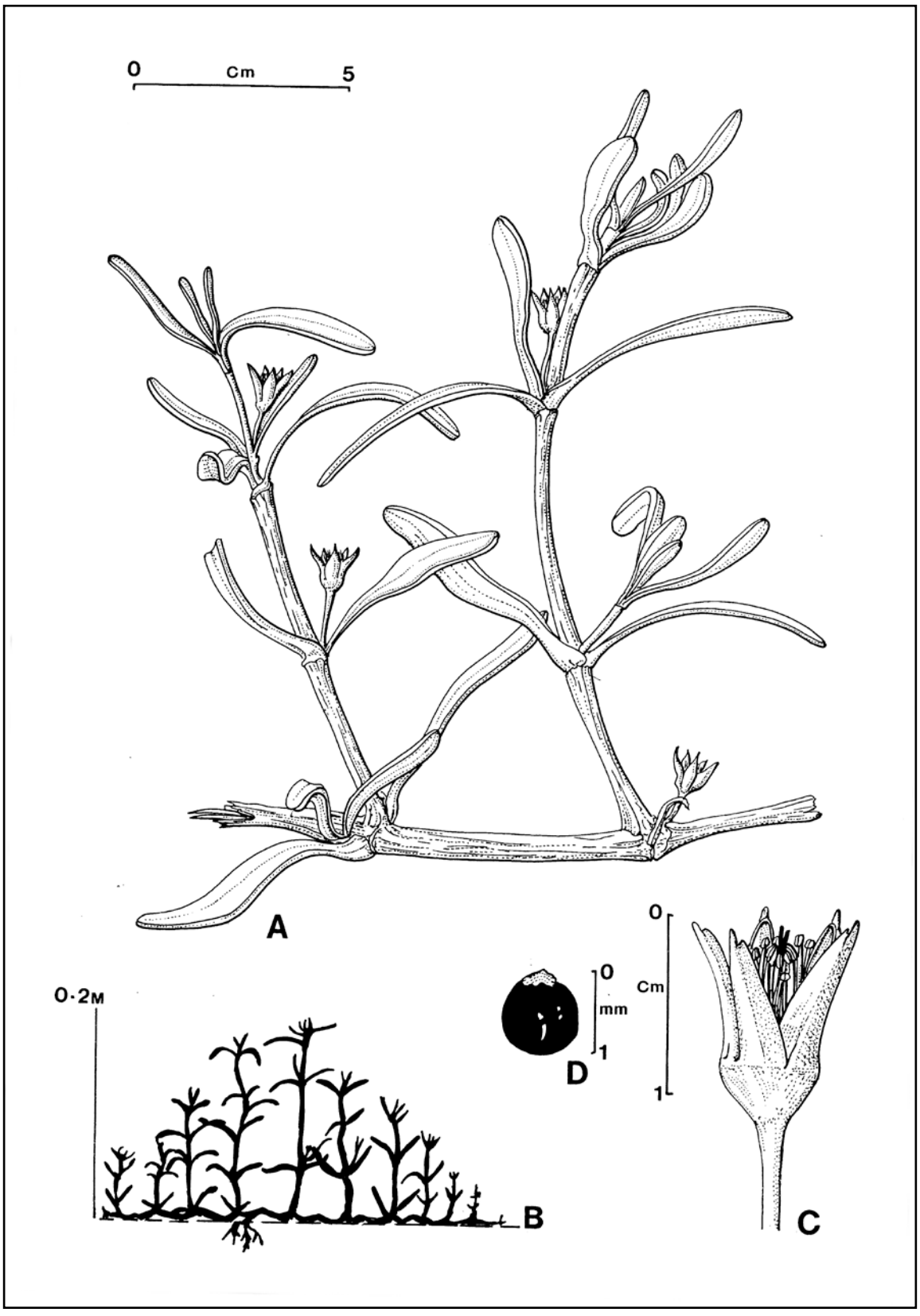

Figure 37. ***Sesuvium portulacastrum***. A, flowering branch; B, habit; C, flower; D, seed (A–D, G. Wightman 1603 & G. Wightman 3143, DNA).