MANGROVES OF THE NORTHERN TERRITORY, AUSTRALIA:

IDENTIFICATION and TRADITIONAL USE

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NORTHERN TERRITORY BOTANICAL BULLETIN No. 31
EXTRACT: *Aegialitis* (pp. 41–43)
Prepared for online viewing and download by the Department of Land Resource Management, 2015

DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENT & THE ARTS
and GREENING AUSTRALIA NT

DARWIN 2006

Aegialitis PLUMBAGINACEAE

DERIVATION: The Greek ‘aigialos’ means seashore, and refers to the habitat occupied by this genus.

A genus of two mangrove species of vicariant distribution; *A. annulata* occurs in NT tidal areas.

Aegialitis annulata R.Br. Club Mangrove

DERIVATION: The Latin ‘annulatus’ means marked with rings and refers to the conspicuous leaf scars on the twigs.

DESCRIPTION: Slender shrub to 1.5 m, occasionally to 3.0 m; cryptoviviparous; stem base often distinctly swollen; leaf scars conspicuous on twigs. Leaves alternate, petiole to 5.5 cm, winged and sheathing stem; lamina ovate to widely ovate, 3–8.5 cm long, 2–7 cm wide, surfaces with longitudinal depressions and salt glands, veins many and parallel, apex obtuse, base cuneate-truncate. Panicle dichotomous. Flowers solitary, shortly pedicellate with sheathing, folded bract, 5–8 mm long, enclosing 2 smaller bracteoles, 4.5–5.5 mm long. Calyx tubular, 8 mm long, composed of 5 prominent, induplicate ribs ending in tooth lobes. Corolla tube barely formed to 2 mm long, above tube 4 elongate-spathulate, convolute lobes to 8 mm long. Stamens 5; filaments to 4 mm long, base flattened, epipetalous; anthers 1.5–2 mm long. Ovary superior, unilocular, ovules one; styles 5, to 6 mm long; stigmas capitate. Capsule falcate, 5-angled, to 5 x 50 mm, dull crimson when mature. Seed to 4 x 48 mm.

HABITAT: *Aegialitis annulata* is restricted to areas inundated by waters with salinity at least that of sea water (at the end of dry season). Soils from mud to almost bare rock are colonised. *A. annulata* is commonly found at the seaward edge of mangrove communities in association with *Avicennia marina* and *Sonneratia alba*; exposed positions are often colonised.

DISTRIBUTION: *Aegialitis annulata* is widespread and common around the entire NT coastline. This species also occurs in Western Australia and Queensland. Extra-Australian occurrences include New Guinea, and the Moluccas and Lesser Sunda Islands of eastern Indonesia.

DISTINCTIVE FEATURES: Swollen, club-like stem base; leaves ‘sting-ray shaped’, petiole sheathing stem.

ETHNOBOTANY: Tiwi children use the leaves as toy whistles, and sometimes as imaginary stingrays which are speared with small spears (Puruntatameri et al. 2001). Levitt (1981) also reports Aboriginal children from Groote Eylandt using *A. annulata* leaves as imaginary stingrays, which they pretend to spear and cook.

Rirratjingu people also liken the leaf outline to a stingray (Yunupingu et al. 1995). Emi and Batjamal people bend the leaves to use as a whistle, especially to amuse children (Smith & Wightman 1990).

Djambarrpuyngu people believe this species indicates a good place to fish for Barramundi as they are often found near this plant (Galpagalpa et al. 1984). Iwaidja speakers also fold the leaves in half and use them as a toy whistle (Blake et al. 1997).

Recorded Aboriginal language names

Anuma (Anindilyakwa)
Djulinganing (Rirratjingu, Yolngu matha)
Widjber (Emi and Batjamal)
Mungunmungun (Djambarrpuyngu)
Mungunmungun (Yolngu matha)
Yirtan (Iwaidja)
Yilbirrinji (Yanyuwa)

The buoyant timber is used to make life vests for fishermen and floats for fishing lines in Sumba, Indonesia (Astuti et al. 2001).

NOTES: The genus *Aegialitis* consists of two morphologically and geographically distinct species, *A. annulata* and *A. rotundifolia*, however, fossil pollen is known from the intermediate area (van Steenis 1949).

Ants regularly visit the small white flowers of *A. annulata*, apparently as pollinators. Flowers are produced during the period September to November, mature fruit appear from January to March.

Saenger (1982) describes the fruit as an indehiscent nut and uses the term cryptoviviparous to describe embryo enlargement within the fruit without rupturing the pericarp. Van Steenis (1949) interpreted the presence of spongy air filled tissue in the swollen mesocarp of the seed as aiding buoyancy, thus enhancing water borne dispersal.

Reference: van Steenis 1949.

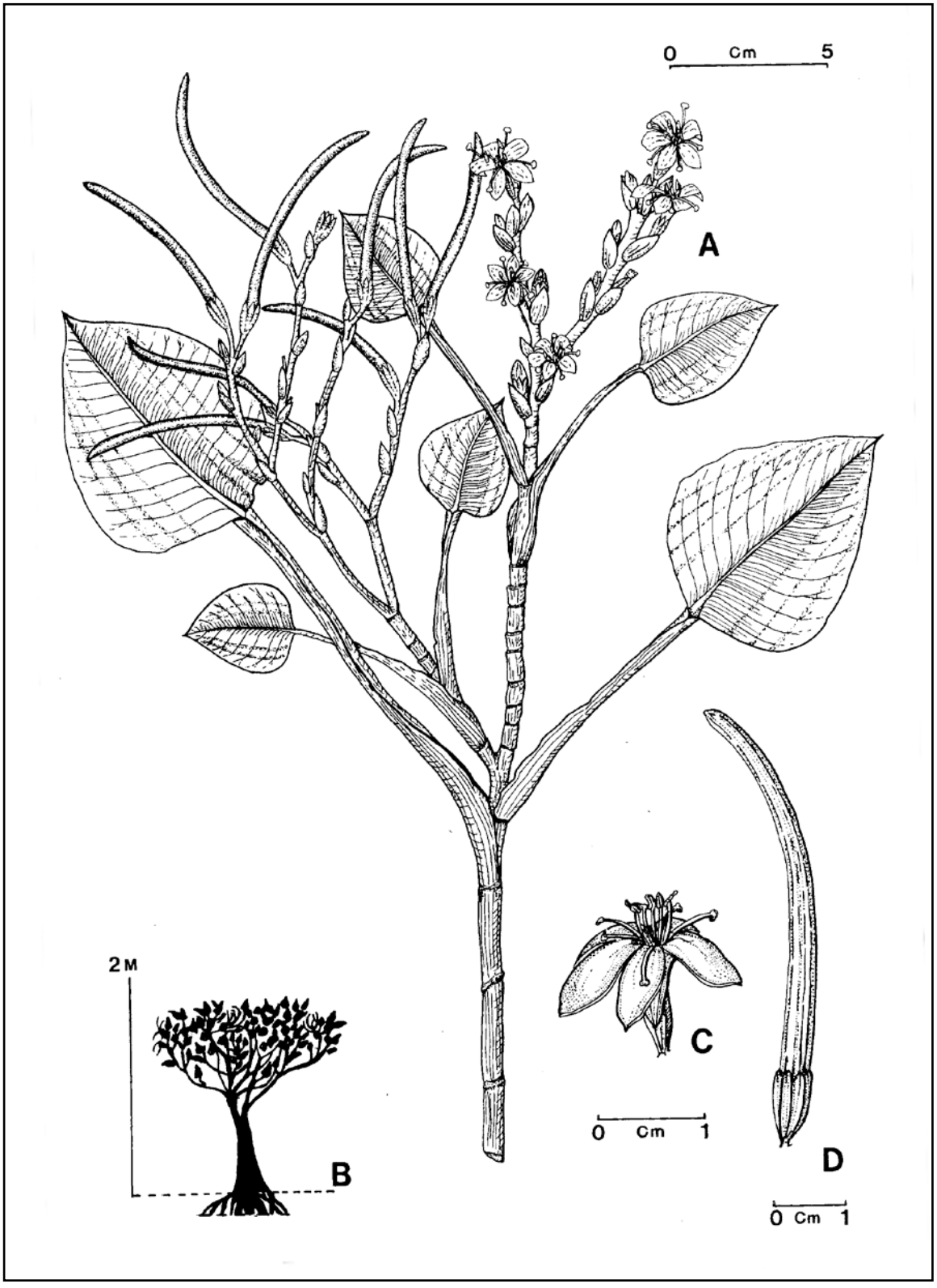

Figure 11. ***Aegialitis annulata***. A, flowering and fruiting branch; B, habit; C, flower; D, fruit (A, G. Wightman 980, DNA; C, G. Wightman 700, DNA; D, G. Wells s.n. DNA 12297)