NOTES ON THE GENUS ACACIA IN THE NORTHERN TERRITORY

J.R. Maconochie

Herbarium of the Northern Territory, Animal Industry and Agriculture Branch, Department of the Northern Territory, Alice Springs, N.T. 5750

Abstract

Four new Acacia species are described from the central Australian region of the Northern Territory, viz. A. ammobia Macon., A. averiana Macon., A. macdonnelliensis Macon., and A. olgana Macon. The new combination A. multisiliqua (Benth.) Macon., is provided for the tropical taxon, A. simsi var. multisiliqua Benth. One new record is noted, namely A. laccata Pedley.

1. Acacia multisiliqua (Benth.) Maconochie, comb. et stat. nov.


Holotypus: BM — R. Brown “Mimosa multisiliqua No. 6 desc. Carpentaria Island, 1803”.

Isotypi: E, K.

When Bentham (1864) described this taxon as a variety of A. simsi he commented that when he first saw Brown's specimens from the Carpentaria Islands he was inclined to regard them as representing distinct species under Brown's manuscript name of A. multisiliqua but subsequently found that the two forms pass one into the other.

Pedley (1975) cited the sheet “A. Cunn. 211, Cleveland Bay, 2nd Voyage of Mermaid 1818”, at Kew as the holotype. Unfortunately this citation is incorrect as the specimen No. 211 is from Sim's Island, April 1818 and the Cleveland Bay specimen is June No. 314, 1819. This confusion is easily made as the K sheet has three unnumbered specimens on it and a label with the following notes:

| “Sim’s Island”  | April   | 211  |
| Repulse Bay     | June    | 316  |
| Cleveland Bay   | June    | 314  |

East Coast, Tropical Australia

A. Cunningham

In the original description Bentham (1842) cited “N.E. Coast, Cleveland’s Bay — Cunningham” and several other specimens. Hence the type citation should read, “A. Cunn. 314 Cleveland Bay, 2nd Voyage of Mermaid”.

Reference to Cunningham’s unpublished manuscript at K and duplicate sheets at BM does not clarify the use of the epithet “simsii”, but it does verify the Cleveland Bay specimen as 314. Whether Cunningham intended to name this species after Dr John Sims of England or after Sim’s Island is unclear. King (1826) named Sim’s Island in honour of Dr Sims at Cunningham’s request. Reference to Cunningham’s manuscript shows no details alongside number 211 except, “1st Voyage of Mermaid”; while under 314, “Acacia sp. folis linearibus . . . . . . . . . . . . Cleveland Bay 14 June,” over which has been added “simsii A. Cunn. Lond. J. Bot. v.1 p. 365”. Examination of these historical specimens at K and BM show them as mixed collections on the same sheet in several cases. The concept and distribution of A. simsi A. Cunn. ex. Benth. as proposed by Pedley (1975) is not in doubt only further clarification of individual specimens was needed.
Specimens 314, 316 are *A. simsii* while 211 from Sim's Island is *A. multisiliqua*, which is restricted to the Northern Territory and Queensland in Australia and is readily distinguished from *A. simsii* as follows:

**Seeds obloid 4-5 mm long, 2 mm diam.; pods with constriction between seeds; phyllodes falcate 40-60 mm long, 6-10 mm broad; heads shortly pedunculate, peduncle 3-6 mm long**

* A. multisiliqua

**Seeds subglobose 2.5-3 mm diam., 1.5 mm thick; pod flattened, 6 mm wide with distinct suture or ridge on each side; phyllodes straight to slightly curved, tapered at each end 12-15 cm long, 5-7 mm broad; heads pedunculate, peduncle 5-10 mm long**

* A. simsii

In F. Mueller's 'Iconography of Australian species of Acacia' Dec. VII (1887) the illustration of fruiting material and seed is *A. simsii* but the central portion with flowers and broad phyllodes is *A. multisiliqua*.

**Description**

An erect, often spindly, small shrub to 2 m tall. **Phyllodes** short, falcate, (35-)-40-60(-80) mm long, (4-)-6-10(-12) mm wide at its broadest point, 3-5 nerved, with a weak mucro at the tip, surface dull, papillose, gland adaxial 6-9 mm from the base of the phylloide. **Inflorescences** single or paired, heads globular and 5-6 mm in diameter, peduncles 3-6 mm long. **Flowers** 5-merous, **calyx** lobes linear-spathulate with ciliate tips about 1.5 mm long, **corolla** 2-2.5 mm long, almost divided to base, petals acute, glabrous with thickened tip and central nerve. **Ovary** glabrous. **Bracteoles** linear, with a large spathulate terminal point. **Pods** 50-60 mm long, 3-4 mm wide, constricted between seeds. Seeds arranged longitudinally and up to 7 in the pod, obloid, 4-5 mm long, 2 mm in diameter.

**Selected specimens**

R. Brown, Carpentaria Island (type) (BM, K); A. Cunningham 211, Sim's Island, 1818 (BM, K); D. Hinz 71-110, Mt. Saunders, Gove, 1.x.1971 (CANB, K, NSW, NT); D. Hinz 741611, Gove, 16.xi.1974 (DNA, K, NT, PERTH); R.L. Specht 381, Hemple Bay, Groote Eylandt, 6.v.1948 (K).


3. **Acacia pachycarpa** F. Muell. ex Benth., Fl. Aust. 2 : 408 (1864).


Pedley (1974) stated that *A. crassifrugs* Tindale et Maconochie was likely to prove conspecific with *A. pachycarpa* F. Muell. ex Benth. The type of the latter name comprised two elements one of which was *A. ancistrocarpa* Maiden et Blakely. Since the publication of *A. crassifrugs* further field trips have been made into the type localities of both species and the results of these studies indicate that *A. crassifrugs* is undoubtedly conspecific with *A. pachycarpa*. Also Until further trips in the N.T.-W.A. area of Sturt's Creek have been made this species appears to be restricted to the N.T. region, as I have been unable to locate it on the W.A. side of this creek.

4. **Acacia ammobia** Maconochie, sp. nov.

* Arbor vel frutex* 3-6 m altus, truncis singulis vel pluribus. **Cortex** nigricans persists. **Phyllodia** in arbore erectiuscula. Phyllodia complanata, linearia, rigid, coriacea, multinervia, in utraque extremitate contracta, nervo medio siccitate leviter prominentiore, 12-22 cm longa, medio 5-7 mm lata, glabra vel leviter pruinosa. **Inflorescentia** spicata, cylindrica, 25-40 mm longa, 6-7 mm diametro, pedunculo 2-3 mm longo suffulta vel sessilis. **Corolla** pentamera, glabra, usque ad dimidium divisa, lobis apice incrassatis. **Calyx** cupulatus, apicibus loborum acutis et ciliatis. **Bracteola** spathulata. **Ovarium** villosum, stylus glaber. **Legumen** 9-11 cm longum, 2 mm latum, secus suturem porcatum, glabrum vel
Fig. 1. Acacia armanjina Maconochie, holotype. Maconochie 14644 (NT).

Fig. 2. Acacia ayersiana Maconochie, holotype. Maconochie 1909 (NT).
aliqualdo pruinosum. Semen obloideum, 5 mm longum, 2 mm latum, 1 mm crassum, in legumine longitudinaliter dispositum.

**Holotypus:** J. R. Maconochie 1646A, ca. 30 km E. of Ayers Rock (25°25'S, 131°20'E) 1.ix.1972 (NT).

**Isotypi:** BRI, CANB, MEL, PERTH.

A small tree or tall shrub 3-6 m high with single or several stems or trunks. Bark grey-black, non-decorticating. *Phyllodes* tending to be erect on the tree. Phyllodes flattened, linear, rigid, coriaceous, multi-veined, midvein slightly prominent when dry, tapering at each end. 120-220 mm long, 5-7 mm wide at the centre, surface glabrous or slightly pruinose. *Inflorescence* a cylindrical spike, 25-40 mm long, 6-7 mm diameter, pedunculate (2-3 mm) to almost sessile. *Corolla* 5-merous, divided halfway, glabrous, apices of petals thickened. *Calyx* cupulate, sparsely sprinkled with hairs at apices of acute lobes. Bracteoles spatulate. *Ovary* villous. *Pod* 9-11 cm long, 2 mm broad, ridged along the suture, glabrous to pruinose. Seeds arranged longitudinally in pod, narrowly obloid, 5 mm long, 2 mm wide, 1 mm thick, funicle yellow-white folded and attached to one end. (Fig. 1).

**Selected specimens**
G. Chippendale (NT 2914), 49.8 km E. Ayers Rock, 14.ix.1956 (NT, NSW); N. N. Donner 4347, ca. 13 km W.N.W. Mt. Connor (25°27'S; 131°47'E), 21.viii.1973 (AD, DNA, NT); P. K. Latz 5728, 35 km W.S.W. Mt. Olga (25°21'S; 130°27'E), 22.ix.1974 (DNA, NT, PERTH); J. R. Maconochie 1800, 37.5 km E. Ayers Rock (25°20'S; 131°28'E), 17.x.1973 (NT).

This species is allied to *A. doratoxylon* of eastern Australia and *A. lasiocalyx* of Western Australia. It differs from the former in having longer and less falcate phyllodes, longer inflorescences, an erect habit and phyllodes without the 3 prominent veins as noted by Maiden (1909) for *A. doratoxylon*. *A. lasiocalyx* has villous calyces and much longer and more flexible phyllodes with prominent central nerve.

5. **Acacia ayersiana** Maconochie, sp. nov.

*Arbor* parva vel *frutex* pluricaulis, 3-6 m altus, cortice nigranti semi-persistenti. *Phyllodia* complanata, lanceolata vel falcata, plurinervia utraque extremitate contracta, paginis glabris obscuris vel subtiliter sericeis, apice recto vel leniter uncato, 50-100 mm longa et medio 5-10 mm lata, margine glutinoso-cerino. Glandula basalis circularis, in conspicua vel obsoleta. *Inflorescentia* spicata, cylindrica, 15-25 mm longa, 3-6 mm diametro, pedunculo 2-3 mm longo vel nullo, rhachis glabra, bracteolis spatulatis. *Flores* pentamera, *calycis* lobi spatulati, glabri vel glutinosi; *corolla* glabra vel leviter glutinoso vel sericea, calyce duplo vel triplo longior, lobis costa valida et apicibus incrassatis instructis. *Ovarium* bruneum, leviter sericeum vel glabrum. *Legumen* complanatum, pedunculatum (4-6 mm) margine 1 mm alatum, reticulatum, sericeum vel glabrum, seminibus transversim dispositis. Semina anguste ovoidea, 5-6 mm longa, 2-3 mm lata, funiculo albo ad apicem seminis plicato.

**Holotypus:** J.R. Maconochie 1930, Ayers Rock (25°23'S, 131°05'E), 19.x.1973 (NT).

**Isotypi:** AD, BRI, DNA, NSW, PERTH.

Small tree or several stemmed shrub from 3 to 6 m high with black-grey semi-persistent bark. *Phyllodes* flattened, lanceolate to falcate, multi-veined, tapering at each end, with dull glabrous or finely sericeous surface, tip straight or weakly hooked, 50-100 mm long and 5-10 mm wide at the middle, margin yellow-brown and glutinous. Gland circular, basal but inconspicuous or absent. *Inflorescence* a shortly pedunculate (2-3 mm) cylindrical spike, 15-25 mm long, 3-6 mm in diameter, rhachis glabrous, bracteoles spatulate. *Flowers* 5-partite. *Corolla* glabrous or sericeous (sometimes slightly glutinous), petals with strong midribs and thickened apices. *Calyx* lobes spatulate, 1/2-1/3 length of corolla, glabrous or glutinous-sericeous. *Ovary* brownish, weakly sericeous to glabrous. *Pods* flattened, pedunculate (4-6
Acacia in the Northern Territory

mm), margin with 1 mm wide wing, with reticulate, sericeous or glabrous surface, seeds arranged transversely in pod. Seeds narrowly obloid, 5-6 mm long, 2-3 mm broad. Funicle white, folded at end of seed. (Fig. 2).

Selected specimens
J. R. Maconochie 643, Ayers Rock, 17.i.1969 (NT); J. R. Maconochie 1928, 75 km N-E Docker River Settlement. 29.viii.1973 (NT).

This species is allied to A. kempeana and A. aneura var. latifolia; it differs from the former in the longer phyllodes with a tapering acute apex and shorter but broader winged pods. From A. aneura var. latifolia it differs in the broader pod and larger phyllodes.

6. Acacia macdonnelliensis Maconochie, sp. nov.

Arbor vel frutex 3-6 m altus, truncibus singulis vel pluribus. Phyllodia in arbore erectiuscula. Phyllodia complanata, linearia, falcata, multineriva glabra vel leviter glutinosá, apice leviter uncinata, (50-)70-100(-120) mm longa. Glandula basali inconspicua vel obsoleta. Inflorescentia spicata, cylindrica, 20-30 mm longa, 5-6 mm diametro, pedunculo 4-5 mm longo, rhachis glabra, bracteolis spathulatis. Flores pentamera; calyx cupulatus, lobis acutis parvis circiter tertia parte longitudinis calycis, basi sparse villosus. Lobi corollae acuti, glabri, apice incrassato, calyce circiter bis longiores. Ovarium glabrum vel sericeum. Legumen sessile, angustum, lineare, inter semina circiter tertia parte longitudinis calycis, basi sparse villosus. Legumen longitudinosum, nitidum, chartaceum, glabrum vel sparse pubescentem, 40-50 mm longum, 3-4 mm latum. Semina nigrofuscae, anguste obloidea, longitudinaliter disposita, 4-5 mm longa. 1.5 mm lata, funiculo luteolo, ad apicem seminis plicato.


Small tree or tall shrub to 3-5 mm high with one or several trunks. Phyllodes flat, erect, linear, falcate, multinerved, glabrous or slightly glutinous, tip weakly hooked, (50-)70-100(-120) mm long, 1.5-5 mm wide. Gland basal, inconspicuous or absent. Inflorescence a cylindrical spike, 20-30 mm long, 5-6 mm in diameter, peduncles 4-5 mm long, rhachis glabrous, bracteoles spathulate. Flowers 5-partite; calyx cupular with sparse villous pubescence at base, lobes acute and small (to about 1/3 length of calyx). Corolla lobes acute, glabrous with thickened apices about twice the length of calyx. Ovary glabrous or with fine silky pubescence. Pods sessile, narrow, straight, slightly constricted between the seeds, dark brown, reticulate and slightly glutinous, 40-50 mm long, 3-4 mm wide. Seeds arranged longitudinally in pod, black-brown, narrowly obloid, 4-5 mm long, 1.5 mm broad, funicle yellow-white, folded at end of seed. (Fig. 3).

Selected specimens
G. Chippendale (NT 3595), Bagots Creek, George Gill Range. 13.viii.1957 (NT); P.K. Latz 5804, Macdonald Downs, 24.x.1974 (NT, PERTH); J. R. Maconochie 452, Standley Chasm area. 8.viii.1967 (NT).

This species is allied to A. adsurgens Maiden et Blakely but differs in its broader phyllodes and in having a tree rather than a multi-stemmed rounded shrub habit. A. adsurgens is a species of the spinifex sand plains while A. macdonnelliensis mostly grows on ridges, hillsides and gullies of the ranges in central Australia.

7. Acacia olgana Maconochie, sp. nov.

Arbor vel frutex, 3-15 m altus, truncis singulis vel pluribus. Phyllodia multinervia, nervo medio siccitate aliquando leviter prominenentiore. Phyllodia multinervia, nervo medio siccitate aliquando leviter prominenentiore, lata, recta, aut leviter curvata vel falcata, glabra aut leviter pruinosa (60-)90-120(-150) mm longa. Inflorescentia spicata, sessilis, cylindrica, 17-22 mm longa, 3-4 mm diametro. Rhachis pubescens, sub fructu glabrescens. Flores pentamera; sepala spathulata, ciliata, ca. 1 mm longa; corolla glabra, ca. 1.5 mm longa. Ovarium papillosum, stylus glaber. Legumen sessile. Dens, nitidum, chartaceum, glabrum vel sparse pilosum, basi aliquando pubescens, 40-70 mm longum, 3-4 mm latum. Semina subglobosum, fusco-nigrum, nitidum. 3 mm longum, 2.5 mm latum. 2 mm crassum, in legumine longitudinaliter dispositum.
Fig. 3. *Acacia macdonnellensis* Maconochie, holotype, *Maconochie 440* (NT).

Fig. 4. *Acacia olgana* Maconochie, holotype, *Hill & Lothian 791* (NT).
Acacia in the Northern Territory


Isotypi: AD, K.

A tree from 3 to 15 m high, single-stemmed or with several main stems or trunks. Bark rough, grey-brown, flaky but persistent. Branchlets reddish with a whitish reticulate-ovate pattern of flaking bark. Phyllodes many nerved, sometimes the central one slightly more prominent when dry, flat, tapering towards the hooked tip, straight to slightly curved or falcate, shiny, glabrous or with a weakly developed pruinose surface (60-)90-120(-150) mm long, (2.5-)3-4(-5) mm broad. Gland yellow-brown ovoid, about 0.5 mm long, about 3 mm from base. Inflorescences single or paired cylindrical sessile spikes, 17-22 mm long and 3-4 mm in diameter. Rhachis of inflorescence with yellow silky pubescence but becoming sparse or glabrous when with fruit. Flowers 5-merous, sepals spathulate, ciliate, about 1 mm long. Corolla glabrous, divided in upper third, 1.5 mm long, 1 mm at widest, with a central ridge, lobes 0.5 mm long. Ovary papillate hairy. Pod sessile, smooth, shiny, papery, glabrous or with very sparse hairs, sometimes pubescent at the base, convex on opposite sides over successive seeds, suture edges straight, 3-4 mm wide and 40-70 mm long. Seeds subglobose, brown-black, shiny, 3 mm long, 2.5 mm wide, 2 mm thick, arranged longitudinally in pod. Funicle yellow-white, small, folded but not encircling the seed. (Fig. 4).

Selected specimens

This species is allied to A. signata but differs in having (a) narrower phyllodes without red margin, (b) spathulate sepals, (c) glabrous corolla, (d) narrower more papery fruit and (e) not the centrally prominent vein as referred to by Maiden (1917) where the description of A. signata was emended.

Acknowledgements
I wish to thank Mr A.K. Airy Shaw for correcting the Latin descriptions. This paper was prepared during my tenure as Australian Botanical Liaison Officer, Kew 1976/77 and I am grateful for the working facilities made available by the Director.

References