

# The South African Species of *Myrica*

by

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## ABSTRACT

The South African species of *Myrica* are revised, the 19 species previously recognized being reduced to 9. One variety is elevated to specific rank, viz. *M. conifera* Burm.f. var. *integra* A. Chev. becomes *M. integra* (A. Chev.) Killick.

The only comprehensive revision of *Myrica* ever undertaken is that by Chevalier in his Monogr. Myric. (1901). Since that time a mass of material of *Myrica* has accumulated in various herbaria and identification using Chevalier's species-criteria has become increasingly difficult. Adamson (1950) writes: "A genus much in need of revision. There is much uniformity in floral structure and the specific distinctions are based almost wholly upon vegetative characters. Several species exhibit variation in leaf characters in relation to age, habitat or as the result of fires or other forms of interference. Hybridisation almost certainly occurs whenever species are associated". It is clear, therefore, that a modern revision has become both necessary and urgent.

According to Chevalier the South African Myricaceae belong to the section Cerophora and the subsection Africanæ. Chevalier described ten new varieties and five new species from South Africa, viz. *M. incisa*, *M. dregeana*, *M. myrtifolia*, *M. glabrissima* and *M. elliptica*, very often basing his new taxa on single specimens.

The next treatment of *Myrica* was by Hutchinson in Flora Capensis (1925). Hutchinson accepted Chevalier's delimitation of species, except that he sunk *M. natalensis* C.DC. under *M. conifera* Burm.f. Also, he omitted *M. pilulifera* Rendle which, at that time, was considered to be entirely a tropical species.

In the present revision, the 17 species recognized by Chevalier plus the two species subsequently described by Burt Davy, *M. mossii* and *M. rogersii*, are reduced to nine species.

In spite of Adamson's remarks concerning the uniformity of floral structure in *Myrica*, all the species were carefully dissected, but unfortunately no significant differences between species were revealed. This meant that as in the past the key had to be based almost entirely on vegetative characters.

Type and other specimens were kindly lent or photographs thereof given to the author by the following institutions: BOL, CN, G, M, NBG, P and SAM. Material at the BM, K and LINN was consulted when the author was stationed at Kew between 1954 and 1957.

## MYRICA

*Myrica* L., Sp. Pl. ed. 1, 1024 (1753); Gen. Pl. ed. 5: 449 (1754); Benth. & Hook.f., Gen. Pl. 3, 1: 400 (1880); C.DC. in DC., Prodr. 16, 2: 147 (1864); A. Chev., Monogr. Myric. 139 (1901); Hutch. in Fl. Trop. Afr. 6, 2: 307 (1917); Fl. Cap. 5, 2: 561 (1925); Adamson in Fl. Cape Penins. 311 (1950); Phill., Gen. ed. 2: 245 (1951).  
Type species: *M. gale* L.

*Gale* Duham., Trait. Arb. Arbust. 1: 253 (1755); A. Chev., l.c. 92 (1901).

Trees or shrubs, frequently aromatic. *Leaves* alternate, penninerved, entire, serrate, dentate or pinnately lobed; stipules 0. *Flowers* usually dioecious in bracteate spikes; male spikes axillary, solitary, usually densely flowered; female spikes axillary, longer or shorter than the male spikes. *Perianth* 0. *Male flowers* subtended by a solitary bract; stamens 2-many; filaments short, more or less cohering; anthers erect, oblong, with 2 parallel longitudinally dehiscing cells, sometimes papillose. *Female flowers* subtended by a solitary bract and with a whorl of hypogynous scales. *Ovary* sessile, 1-celled; style short, with 2 spreading or ascending branches, filiform or sometimes flattened; ovule 1, erect from the base of the cell, orthotropous. *Drupe* small, globose or ovoid, usually warted and covered with white wax; endocarp hard. *Seed* erect; testa membranous; albumen 0; embryo straight with planoconvex fleshy cotyledons and a short radicle.

A genus of about 56 species, distributed throughout the Northern Hemisphere, 6 in the Mascarenes, 11 in Tropical Africa (*vide* Hutchinson, l.c. 562) and 9 in South Africa.

The name *Myrica* is derived from the Greek, *muron*, a scent.

Leaves narrowly attenuate at base:

Leaves 5–10 cm long:

- Leaves reticulate and not usually gland-dotted..... 1. *M. integra*  
 Leaves smooth (not reticulate), but gland-dotted..... 2. *M. serrata*

Leaves 3–5 cm long:

- Leaves usually pinnately lobed (oak-like)..... 3. *M. quercifolia*  
 Leaves elliptic to obovate and margins repand-serrate..... 4. *M. diversifolia*

Leaves broadly cuneate to round at base:

Leaves distinctly petiolate and blade 3.2–6.5 cm long..... 5. *M. pilulifera*

Leaves shortly or scarcely petiolate and blade 0.6–4.5 cm long:

Leaves narrowly elliptic or cordate and less than 3 cm long:

- Leaves narrowly elliptic..... 6. *M. brevifolia*  
 Leaves cordate..... 7. *M. cordifolia*

Leaves elliptic-ovate to broadly ovate and usually longer than 3 cm:

- Male spikes robust and female spikes up to 8 cm long..... 8. *M. kraussiana*  
 Male spikes not robust and female spikes up to 4 cm long..... 9. *M. humilis*

1. *Myrica integra* (A. Chev.) Killick, stat. nov. Type: Clanwilliam, Olifantsrivier, Blackfontein, *Schlechter* 8026 (P, holo.!; PRE!).

*M. conifera* Burm.f. var. *integra* A. Chev., Monogr. Myric. 148 (1901).

*M. linearis* sensu A. Chev., l.c. 148 (1901); Hutch. in Fl. Cap. 5, 2: 568–569 (1925).

Tree or shrub, 2–3 m high. *Bark* grey or black. *Ultimate branches* glabrous to pubescent. *Leaves* narrowly elliptic, 6–8 cm long, 0.8–1.5 cm wide, apex acute, base narrowly cuneate, margin usually entire, sometimes remotely serrate, midrib prominent below lateral veins fairly conspicuous, 20–25 at obtuse angle to midrib, surface finely reticulate, eglandular, glabrous, coriaceous; petiole 0.5–1.2 cm long. *Flowers* dioecious. *Male spikes* axillary, solitary, 0.8–1.3 cm long; rhachis not visible; bracts solitary, broadly ovate to broadly trullate, 1–1.5 mm long, 1.5–2 mm wide, deeply concave on inner surface, ridged, ciliate; stamens 4; anthers 1.2 mm long, papillose. *Female spikes* 0.8–1.2 cm long; rhachis scarcely visible; bracts solitary, ovate to broadly ovate-trullate, 1.2–1.5 mm long, 1.4–3 mm wide, ciliate; hypogynous scales 4, roughly ovate, 0.4–0.8 mm diam., keeled, fleshy; style branches 2, filiform or flattened, 1.8 mm long. *Fruits* globose,  $\pm 3$  mm diam., warted, covered with white wax. FIG. 1: 1.

This species is restricted to an area between Clanwilliam and Stellenbosch in the S.W. Cape, where it is found on riverbanks.

CAPE.—Ceres: Mitchells Pass, *Esterhuysen* 15220; Wittelskloof, *Esterhuysen* 14735; 15220 (BOL). Clanwilliam: rocky stream flowing into Olifants River, *Esterhuysen* 14960 (BOL); bank of Jan Diesels River, *Pillans* 9883; *Schlechter* 916, 8026. Paarl: between Paarl and Lady Grey railway bridge, *Drege* s.n.; Donkerkloof, *Esterhuysen* 15177 (BOL); near river Dutoitskloof, *Marloth* 604; Wemmershoek, *Smuts* 1124. Stellenbosch: Diep Gat Ravine, *Pillans* 18276 (BOL). Worcester: Bains Kloof, *Compton* 13881 (BOL, NBG); *Lewis* 1895 (SAM).

*M. integra* is very closely allied to *M. serrata* and can really only be distinguished by the conspicuous reticulations on both surfaces of the leaf. Also, it is not usually gland-dotted whereas *M. serrata* invariably is.

Up till now this species has been called *M. linearis*, but it is impossible to establish the identity of *M. linearis* with any certainty. C. de Candolle in his original description of *M. linearis* in DC., Prodr. 16, 2: 154 (1864) states "*Arbuscula patria ignota (in herb. Candolle et Kew)*". A search for the type(s) in both the herbaria mentioned failed to reveal their presence in these institutions. At Kew there are three specimens in the type cover of *M. linearis*, viz. *Zeyher* s.n., 76·6 and *Marloth* 604—the two former from Clanwilliam and the last-named from Dutoitskloof. For obvious reasons these specimens cannot be regarded as type material.

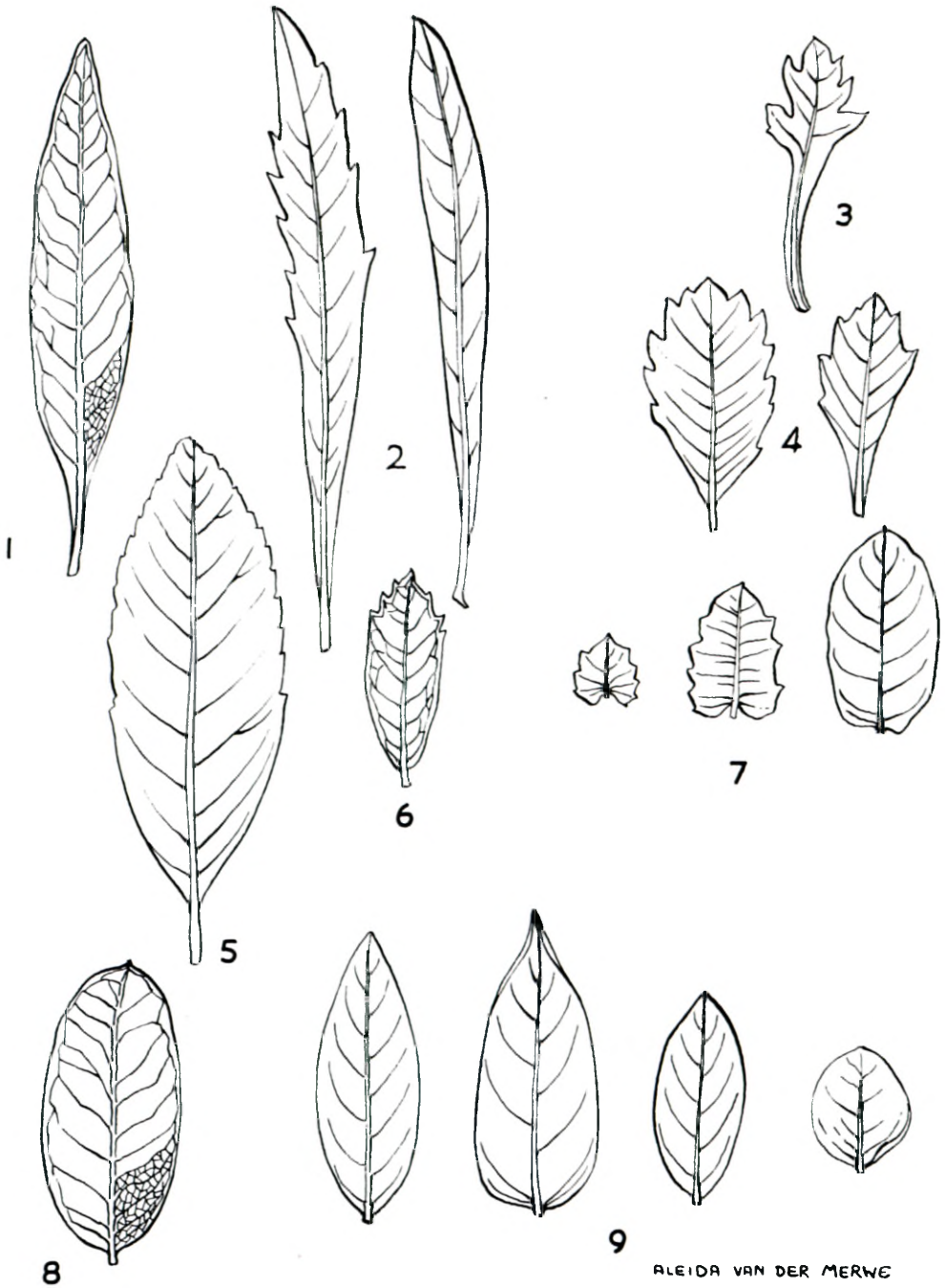
One way out of this predicament would have been to select a neo-type for *M. linearis*. This might have been justified if the description of *M. linearis* exactly fitted the accepted concept of the species. However, it does not: while the description emphasizes the prominent secondary nerves of the leaves, which is a diagnostic feature of the species, it falls short in describing the petioles as short and the branches as glabrous.

In view of the above, it was decided to reject the name *M. linearis* and to adopt the combination *M. integra* (A. Chev.) Killick (= *M. confifera* Burm.f. var. *integra* A. Chev.).

2. *Myrica serrata* Lam., Encycl. 2: 593 (1786); Killick in *Bothalia* 8, 2: 175 (1964). Type: Africa, *Sonnerat* s.n. (or 708?) (P, holo.; PRE, photo.).

*M. aethiopica* L., Mant. Alt. 298 (1771), nom. illegit., pro parte, quoad spec. in Herb. Linn. tantum. Type: C.B.S. (LINN 1169·4). *M. banksifolia* Wendland, Coll. Pl. 1: 70, t.24 (1808). Type: t.24. *M. natalensis* C.DC. in DC., Prodr. 16, 2: 148 (1864); A. Chev., Monogr. Myric. 149–150 (1901). Type: Natal, *Gueinzus* (G, holo.!: PRE, photo.). *M. confifera* auct. non Burm.f., Prodr. Cape. 31 (1768); A. Chev., l.c. 144; Hutch. in Fl. Trop. Afr. 6, 2: 314 (1917); Fl. Cap. 5, 2: 571–572 (1925); Adamson in Fl. Cape Penins. 313–314 (1950). —var. *banksifolia* (Wendl.) A. Chev., l.c. 147. —var. *glabra* A. Chev., l.c. 147–148. Syntypes: several, from Port Natal and Cape, *Drege* s.n. (G), *Drege* no. f. (G), *Verreaux* s.n. (G); *Zeyher* 306, 3847 (P), *Boivin* s.n. (P). —var. *tomentosa* A. Chev., l.c. 147. Type: Africa merid., *Wallich* s.n. (G, holo.!: PRE, photo.). *M. mossii* Burt Davy, in J.S. Afr. Bot. 4: 123 (1938). Syntypes: Krugersdorp, Witpoortjie Kloof, *Moss* 6653, 6828 (BM!; K!).

Tree or shrub, up to 6 m high. Bark brown to black. Ultimate branches glabrous to tomentulose. Leaves narrowly elliptic, 4·5–10 cm long, 0·6–1·8 mm wide, apex acute, base long attenuate into petiole; petiole 1 cm long; margin entire or remotely serrate with teeth sometimes recurved, midrib prominent especially below, 12–18 subimmersed veins, glabrous to pubescent, lower surface usually conspicuously gland-dotted. Flowers monoecious or dioecious. Male spikes 0·8–3 cm long; rachis not or completely visible, glabrous or puberulous; bracts solitary, variable in shape, trullate to very broadly ovate, concave on inner surface, ridged, membranous at edge, ciliate, gland-dotted; stamens 4, sometimes branched at two levels; anthers 1·3 mm long, papillose or epapillose. Female spikes 1·2–2·6 mm long; rachis visible, tomentulose, glandular; bracts ovate, 1·5 mm long, 1·8 mm wide, ciliate, gland-dotted; hypogynous scales 3–5, ovate-triangular, 0·5 mm diam., fleshy, ciliate; style branches filiform to slightly flattened, 2 mm long. Fruits globose, c.2 mm diam., warted, covered with white wax. FIG. 1: 2. PLATE 1.



ALEIDA VAN DER MERWE

FIG. 1.—Leaves of: 1, *Myrica integra*; 2, *M. serrata*; 3, *M. quercifolia*; 4, *M. diversifolia*; 5, *M. pilulifera*; 6, *M. brevifolia*; 7, *M. cordifolia*; 8, *M. kraussiana*; 9, *M. humilis*.

A streambank species recorded in all provinces of the Republic except the Orange Free State (though probably occurring there) and extending into Lesotho, South West Africa and tropical Africa.

CAPE.—Albany: Beggars Bush, *Archibald* 5967; Howieson's Poort, *Britten* 968; outskirts of Grahamstown, *Britten* 2176; Signal Hill, Grahamstown, *Galpin* 2921; nature reserve, Grahamstown, *Martin* 4639; Slaaikraal, *Mauve & Wells* 20. Alexandria: Zuurburg Range, *Archibald* 3931; Kanitra River Valley, *Archibald* 5767. Caledon: Kleinmond, *Isaac* s.n.; Houwhoek, *Schlechter* s.n. Ceres: Zandfontein, *Compton* 19447 (SAM). Clanwilliam: Brakfontyn, *Zeyher* sub SAM 20279 (SAM). Humansdorp: Assegaaibosch, *Esterhuysen* 6723; Slang River, *Phillips* 3434. Kentani: along streams, *Pegler* 883. King William's Town: Hogsback mountains, *Ratray* 302 (BOL). Knysna: Harkerville Plantation, *Keet* 468. Komga: along streams, *Flanagan* 339. Ladismith: Buffelskloof, *Esterhuysen* 18562; 18564 (BOL). Laingsburg: Witteberg Kloof, *Compton* 3010 (BOL). Lusikisiki: Ntabene, *Fraser* sub Schonland 3747a; Egossa, *Sim* 2520 (BOL). Mossel Bay: Mossel River, *Potts* 1658 (SAM). Mount Currie: Glengarry area, *Killick* 2229. Paarl: Dutoitskloof, *Esterhuysen* 11539; Donkerkloof, Great Drakenstein, *Esterhuysen* 15177; base of Klein Drakenstein near Salem, *Galpin* 11040; French Hoek Forest Reserve, *Leighton* s.n. Peninsula: Brightwater swamp, *Compton* s.n.; Buffelsbay, *Compton* 13070 (NBG); Clifton *Marloth* 3432. Port Elizabeth: Van Staadens, *Drege* sub Marloth 5594; Waterhoek Mountains, *Weimarck* 939; *Sim* Q.11. Riversdale: *Muir* 2819. Somerset East: Zuurburg, *Holland* 153. Stellenbosch: Swartboskloof, *Van der Merwe* 24.24. Stockenström: *Acocks* 11108. Stutterheim: Fort Cunyngame, *Sim* 2029. Swellendam: Zuurbraak, *Schlechter* 2128. Tulbagh: near Tulbagh waterfall, *Isaac* s.n.; *Ecklon* 42. Uitenhage: Zwartkops River, *Zeyher* 128; 3876 (BOL). Umzimkulu: Clydesdale, *Tyson* 2556 (SAM). Uniondale: Joubertina, *Esterhuysen* 6919. Victoria East: Hogsback, *Ratray* 303; 1279. Willowmore: *Taylor* 396 (NBG). Worcester: Hex River, near De Doorns, *Bolus* 11948.

NATAL.—Bergville: Mahai River Valley, *Galpin* 9496; Mont-aux-Sources, *Hutchinson, Verdoorn & Forbes* 144; Cathedral Peak Forest Research Station, *Killick* 1650. Eshowe: Umhlatuzi Swamp, *Kotze* 45. Estcourt: stony dolerite koppie, *Acocks* 10493. Hlabisa: St. Lucia Estuary, *Landsdell* 3722; *Pole Evans* 3644. Inanda: *Wood* 985 (SAM). Ingwavuma: Mangusi Forest, *Boocock* (F.D. Herb. 5316). Mtunzini: Ngoye Forest, *Ward* 3468; *Wells & Edwards* 68. Nkandla: Nsuzi River Valley, *Codd* 1423. Pietermaritzburg: Table Mountain, *Killick* 374. Port Shepstone: Shelly Bay, *Mogg* 12742. Ubombo: Mbaswana Forest, *Boocock* (F.D. Herb. 5723); source of Sordwana River, *Michelmores* 38; Lake Sibayi area, *Tinley* 203. Umzinto: Dumisa, *Rudatis* 399. Utrecht: Spieshoek, *Smuts* 1340. Vryheid: Dumuka Mountain, *Gerstner* 45711; Nhlazatsche, *Ward* 3428.

TRANSVAAL.—Barberton: Louws Creek, *Thorncroft* 2046; 4353 (BOL). Bronkhorstspuit: "Spitskop", *Killick* 3460. Krugersdorp: near Hekpoort, *Phillips* 364; Witpoortjie Kloof, *Killick* 3459; *Mogg* 21342; Gladysvale, *Rodin* 3913. Lydenburg: *Wilms* 5835; *Galpin* 12179; 22 miles S.E. of Lydenburg on Nelspruit road, *Marais* 323. Pilgrim's Rest: Bushbuckridge River, *Smuts* 96; 46 miles from Acornhoek on Graskop road, *Story* 3989. Pretoria: Debbe's Ravine, *Mogg* 15052a; Willows, *Repton* 1695; Garsfontein, *Story* 1229. Rustenburg: "Ananda," *Rose Innes* 208; 236; *Sutton* 888. White River: 15 miles east of Skukuza on lower Sabi Road, *Codd & De Winter* 5050; Pretoriuskop, *Van der Schijff*. Waterberg: Hangklip, *Maguire* 1423 (NBG).

LESOTHO.—Leribe: *Dieterlen* 7043 (SAM).

SOUTH WEST AFRICA.—Okavango: Popa Falls, near Andara, *Maguire* 1679. Caprivi Strip: Singalamwe, *Killick & Leistner* 3234; 3235.

Until recently this species was known as *M. conifera* Burmf. See *Killick* in *Bothalia* 8: 175 (1964) for reasons why this name must be rejected in favour of *M. serrata* Lam.

At first it was thought that *M. mossii* Burt Davy, described from the Transvaal, could possibly be treated as a variety of *M. serrata*, because of its entire leaves. However, natural populations were discovered which showed all gradations from entire to serrate margins (see Plate 1).

3. *Myrica quercifolia* L., Sp. Pl. ed. 1: 1025 (1753), Lam., Encycl. 2: 593 (1786); Willd., Enum. Pl. Hort. Berol. 2: 1012 (1809); Thunb., Fl. Cap. ed Schult. 159 (1823); Drege, Zwei Pfl. Documente 98, 106, 132 (1843); C.DC. in DC., Prodr. 16, 2: 148 (1864); A. Chev., Monogr. Myric. 161 (1901); Marloth, Fl. S. Afr. 1: t.23, fig. A, 1 & 2 (1913); Hutch. in Fl. Cap. 5, 2: 570-571 (1925); Adamson in Fl. Cape Penins. 313 (1950). Syntypes: "Aethiopica", LINN 1169.6 (lecto.!); LINN 1169.5!

*M. hirsuta* Mill., Gard. Dict. ed. 8, No. 6 (1768). Type: apparently not in existence. *M. ilicifolia* Burmf., Fl. Ind. et Prodr. Fl. Cap. 31 (err. typ. 27) (1768). Type: *Burmans* s.n. (G, holo.!; PRE, photo.). *M. laciniata* Willd., Enum. Hort. Berol. 2: 1012 (1809).

Type: not seen. *M. zeyheri* C.DC. in DC., Prodr. 16, 2: 149 (1864). Type: mountain ridges, near Caledon, Zeyher 3878 (K, holo.!; SAM!; PRE, photo.). *M. incisa* A. Chev., l.c. 150 (1901). Type: Cape, Burmann (G, holo.!; PRE, photo.). *L. quercifolia* L. var. *hirsuta* (Mill.) A. Chev., l.c. 163 (1901). —var. *ilicifolia* (Mill.) A. Chev., l.c. 165, Pl. 8, D 9, 11, 12 (1901). —var. *latifolia* A. Chev., l.c. 166 (1901). Syntypes: Roxburgh s.n. (G), Drege, Myric. 3 (G!; PRE, photo.). —var. *microphylla* A. Chev., l.c. 163, fig. 20B (1901). Syntypes: prope Devils Peak, Cape Town, Wilms 3634 (P, K!), Boivin 536 (P). —var. *multiformis* A. Chev., l.c. 163, fig. 20A, C (1901). Syntypes: dunes près du Cap Recief, à 500 pieds d'alt., Zeyher 1557, Lehmann 1832, Boivin s.n. (all P).



PLATE 1.—*Myrica serrata*. The range in leaf variation (right to left: entire to serrate) from a population of this species on the farm "Spitzkop", Bronkhorstpruit District, Transvaal (Killick 3460).

Low, spreading shrub, 15–60 cm high. Bark grey to black. Ultimate branches glabrous to tomentulose. Leaves spatulate-ovate in outline, usually pinnatisect or coarsely repand-dentate, 3–5 cm long, 0.5–2.5 cm wide, apex acute to obtuse, base long-attenuate, midrib fairly prominent, lateral veins immersed, coriaceous, lower surface and sometimes upper surface conspicuously gland-dotted, usually glabrous. Flowers dioecious. Male spikes axillary, solitary, 0.5–0.8 cm long; rhachis not visible; bracts very broadly ovate, 1.3 mm long, 1.3–1.8 mm wide, membranous at margin, ciliolate, gland-dotted; stamens 2–4; anthers 1 mm long, papillose. Female spikes axillary, solitary, 0.5–1.5 mm long; rhachis scarcely to clearly visible, densely gland-dotted; bracts very broadly ovate, 1.7 mm long, 1.3 mm wide, ciliolate, gland-dotted; hypogynous scales 2 or 4, rhombate, fleshy, ciliolate; style branches filiform, 2.3 mm long. Fruits globose, 3–4 mm diam., warted, covered with white wax. FIG. 1: 3.

An extremely variable species occurring between Malmesbury and the mouth of the Kei River in the eastern Cape.

CAPE.—Albany: 9 miles from Kaffir drift on road to Grahamstown, *Story* 1285. Bredasdorp: valley side at base of mountain, *Gilpin* 11233; near Strandkloof, *Maguire* 63 (NBG); Zoetendalsvlei, in dunes, *Smith* 3097; Brandontein, *Smith* 3122; Ratelsrivier, *Van Breda* 921. Caledon: near Dasbos, *Grobler* 1044; Hermanus location, *Grobler* 1066; near Bath, *Marloth* 7668; Genadendal, *Roser* (15413). Humansdorp: Slang River, *Phillips* 3338. Komga: near the Kei mouth at Redwalls, *Flanagan* 2582. Malmesbury: Hopefield, *Marloth* 482; Mamre, *Pillans* 9253 (BOL). Paarl: Top of Franch Hoek Pass, *Leighton* s.n. Peninsula: Kirstenbosch, *Compton* 8079; *Esterhuysen* 11774; Devils Peak, *Esterhuysen* 7975; Claremont, *Hutchinson* 1; near Brightwater, *Leighton* 444; Cape Flats, *Strey* 655; Wynberg, *Zeyler* 1553; Table Mountain *Zeyler* 1553. Port Elizabeth: *Anthony* 44; near Port Elizabeth, *Fries*, *Norlindh* & *Weimarck* 317; Greenbushes, *Long* 690; Theesecombe, near Port Elizabeth, *Long* 996; towards Witteklip, *Rodin* 1017; 6 miles west of Walmer, *Story* 2730; on the downs by Port Elizabeth, *Zeyher* 749; Cape Recife, *Zeyher* 1553. Riversdale: *Muir* 2820. Stellenbosch: Brackenfel, *Häfstrom* & *Acocks* 376. Helderburg, *Parker* 4102; 4103 (NBG). Uitenhage: Thornhill, *Compton* 23409 (NBG); *Zeyher* 749 (SAM).

4. *Myrica diversifolia* *Adamson* in J. S. Afr. Bot. 10. 128 (1944). Type: Cape Peninsula, Modderdam, *Adamson* 3368, holo. (no material traced); Smitswinkel, *Isaac* s.n. in BOL 22583 (BOL, lecto.!, PRE, photo.); paratypes several, including: Klaasjagersberg, *Adamson* 3325, 3345; Contour Path, Kirstenbosch, *Levy's* 1085 etc. (all CT!.)

Erect shrub, up to 1 cm high. Bark grey to black. Ultimate branches glabrous to tomentulose. Leaves elliptic or obovate, 3–5 cm long, 1.5–2 cm wide, apex acute to somewhat round, base cuneate, margin repand-serrate in upper half with serrations often recurved, glabrous or pubescent, gland-dotted, midrib and lateral veins (8) fairly prominent on lower surface, reticulate. Flowers dioecious. Male spikes axillary, solitary, 1–2 cm long, rhachis scarcely to not visible, gland-dotted, puberulous: bracts solitary, broadly obovate-ovate 1.8 mm long, 1.9 mm wide, ciliolate, gland-dotted; stamens 2; anthers 1.5 mm long, papillose. Female spikes axillary, solitary, 2 cm long; rhachis visible, puberulous, gland-dotted; bracts broadly ovate, 1.8 mm long, 1.6 mm wide, ciliolate; hypogynous scales 3, c. ovate, 0.5 mm diam., fleshy, ciliolate; style branches 1.2 mm long, flattened, thick. Fruits globose, 3 mm diam., warted, covered with white wax. FIG. 1: 4.

CAPE.—Peninsula: Klaasjagersberg, *Adamson* 3325; 3345 (C.T.); Smitswinkel Flats, *Adamson* 3321 (C.T.); Kirstenbosch, *Compton* 14663; Table Mountain, *Compton* s.n.; Ascension Buttress, *Esterhuysen* 11616 (NBG); Silverstream Buttress, *Esterhuysen* 7652; Grootkop, N.E. slopes, *Esterhuysen* 11405 (BOL); Nursery Buttress *Esterhuysen* 11861 (BOL); *Isaac* s.n. (BOL. 22583); Smitswinkel, *Salter* 8758 (BOL); *Killick* 3828; 3829; 3830; 3831; Modderdam, *Killick* 3832; Contour Path, Kirstenbosch, *Levy's* 1085 (C.T.); Kalk Bay, *Levy's* 1086; 1087; 1088 (C.T.); Silvermine Valley, *Levy's* 1094 (C.T.); *Salter* 8756 (BOL).

Restricted entirely to the Cape Peninsula. It is possible that this species is a hybrid between *M. kraussiana* and *M. quercifolia*. In fact, *Adamson*, the author of *M. diversifolia*, suggested this to the present author in a personal communication (8th January, 1963). However, in Fl. Cape Peninsula, p. 313, *Adamson* had previously written that “probable hybrids with *M. hunilis*, *M. quercifolia* and *M. zeyheri* have been observed”. Considerable field work is necessary to elucidate this problem finally.

5. *Myrica pilulifera* *Rendle* in Trans. Linn. Soc. ser. 2, 4: 43 (1894); A. Chev., Monogr. Myric. 142 (1901); Engl. Bot. Jahrb. 45: 279; figs. G–H (1911); Hutch. in Fl. Trop. Afr. 6, 2: 311–312 (1917). Type: Malawi, Mount Milanji, *Whyte* s.n. (BM, holo.!, K!, PRE, photo of iso.).

*M. pilulifera* *Rendle* var. *puberula* *Rendle* in J. Bot. 41: 86 (1903). Type: Malawi, *Buchanan* 939 (BM, holo.!, K!, PRE, photo. of iso.). *M. rogersii* *Burtt Davy*, Fl. Transv. 2: 433 (1932). Type: Lydenburg, Sabie, *Rogers* 23083 (K, holo.!, PRE!), *Rogers* 20319 (PRE, para.!).



FIG. 2.—*Myrica pilulifera*. a, twig with male spikes, natural size; b, male bract,  $\times 10$ ; c, stamens,  $\times 20$ ; d, female spike,  $\times 2$ ; e, female bract,  $\times 12$ ; f, pistil surrounded by hypogynous scales,  $\times 10$ ; g, female hypogynous scales,  $\times 10$ . (d-g, Scheepers 677).



Tree or shrub up to 30 m high with girth up to 30 cm. *Bark* dark brown to black. *Branchlets* often prominently lenticellate, glabrous or tomentulose. *Leaves* narrowly elliptic to elliptic-obovate, 3.2–6.5 cm long, 1.5–2.8 cm wide, apex acute to round, apiculate, base cuneate, margin crenato-serrate in upper  $\frac{1}{2}$ – $\frac{3}{4}$ , midrib prominent particularly on lower surface and sometimes pubescent, lateral nerves subimmersed, 12–15, forming obtuse angle to midrib and usually dividing before reaching margin, puberulous when young, becoming glabrous, coriaceous rarely conspicuously gland-dotted; petioles 8–10 mm long. *Flowers* dioecious. *Male spikes* axillary, solitary, 8–25 mm long; rhachis not or scarcely visible, glabrous or pubescent, gland-dotted; bracts approximately obtrullate, 1.5–2.6 mm long, 2–2.5 mm wide, ciliate, ridged, concave on inner surface, not imbricate; stamens 5–8 in two series; anthers 0.8 mm long, minutely papillose. *Female spikes* axillary, solitary, 1.5–4.5 cm long; rhachis visible, pubescent; bracts 1, caducous, ovate, 1.2–2.8 mm long, 0.8–2.00 mm wide, ciliate; hypogynous scales 4–6, roughly ovate, 0.5–1 mm diam., unequal, fleshy, keeled, ciliate, gland-dotted; style branches 2 (rarely 3), 1–1.5 mm long, flattened. *Fruits* ellipsoid-globose, 4–5 mm diam., warted, usually wax-covered. FIGS. 1: 5; 2.

Found usually at high altitudes in Rhodesia, Malawi, Swaziland and South Africa as far south as the eastern Cape.

CAPE.—Tsolo: Ntywenka, *Miller* B/692. Umtata: south of All Saints Nek, *Acocks* 131812; Baziya Forest Station, *Killick & Marais* 2067.

NATAL.—Bergville: Upper Sinyati River Valley, *Edwards* 850; Ntonjelane, Mnweni area, *Esterhuysen* 14513; Mnweni area, *Esterhuysen* 18653; Cathedral Peak Forest Research Station, *Killick* 1709; 1817. Estcourt: Cathkin area, *Esterhuysen* 7959 (NBG); Ntabamhlope, *West* 205. Ngotshe: Ngome, *Gerstner* 4365; 4868; 4869. Nkandla: Nkandla Forest, *Gerstner* 4604. Pietermaritzburg: Little Zwartkop, *Doidge* s.n. Utrecht: Kaffir Drift, *Thode* A. 246. Vryheid: hill on east side of Zungeni Peak, *Acocks* 11501; 11561.

TRANSVAAL.—Barberton: Barberton, *Rogers* 24097; 24897; 8 miles from Havelock mine on Barberton road, *Wells* 2016; kloof on Piggs Peak road, *West* 3008; 3017. Letaba: south face of Piesangskop, *Scheepers* 433; above Grootbos Govt. Forest Reserve, *Scheepers* 677. Lydenburg: Op-de-Berg, *Keet* 1127; 19.3 miles south-east of Lydenburg on Nelspruit road, *Marais* 322. Nelspruit: Kaapsche Hoop, *Strey* 3601. Pietersburg: Blaauwberg, *Esterhuysen* 20496; 21496 (BOL); Rooikoppies, near Politsi siding, *Galpin* 9403; Wolkberg, *Gerstner* 5615; the Downs, *Renny* DE. 14. Pilgrim's Rest: 4 miles west of Graskop, *Codd* 3316; Lulu Mountains, *Mogg* 16932; 46 miles from Acornhoek on Graskop road, *Stony* 3993; Mariepskop, *Van der Schijff* 4757; 5566; 5614. Rustenburg: in the "kloof", *Galpin* 11640; 3 miles south of Breedts Nek, *Stony* 958. Soutpansberg: Entabeni Forest Reserve, *Codd* 3054; south of Franz Hoek Peak, *Galpin* s.n. (PRE No. 14902).

SWAZILAND.—Mbabane: Gobolo, *Compton* s.n.; near Umsindusi Bush, *Dlamini* s.n. Piggs Peak: Havelock, *Compton* 29138; *Miller* 6042.

The var. *puberula* has not been upheld, because the species is very variable as regards pubescence: populations have been studied in the field which contain both glabrous and puberulous forms.

*M. rogersii* is quite clearly a synonym of *M. pilulifera*. The latter was probably overlooked by Burt Davy, because at that time it was known only from tropical Africa.

6. *Myrica brevifolia* *E. Mey. ex C. DC.* in DC., Prodr. 16, 2: 150 (1864); *A. Chev.*, Monogr. Myric. 158 (1901); *Hutch.* in Fl. Cap. 5, 2: 567 (1925). Type: Queenstown, Winterberg Range, *Zeyher* 5 (K, holo.!; SAM!; PRE, photo. of iso.).

Dwarf shrub with erect stems up to 1 m high arising from underground rootstock. *Bark* dark grey to black. *Ultimate branches* puberulous to tomentulose. *Leaves* narrowly elliptic, occasionally obovate, 1.5–3 cm long, 0.5–1.3 cm wide, apex acute, apiculate, base cuneate to round, margin with 1–5 serrations in upper  $\frac{1}{4}$ , midrib distinct, lateral veins 4–8, subimmersed or immersed, forming obtuse angle to midrib, glabrous or pubescent, conspicuously glandular, coriaceous, petiole 2–4 mm long. *Flowers* dioecious. *Male spikes* axillary, solitary, 7–12 mm long; rhachis not visible, puberulous; bracts more or less imbricate, trullate-triangular, 1.6–1.7 mm long, 1.8–3 mm wide,

ciliate, deeply concave on inner surface; stamens usually 2 but occasionally 4; anthers 0.5 mm long, epapillose. *Female spikes* axillary, solitary, 0.5–1.2 cm long; rhachis not or scarcely visible, pubescent; bracts 1, ovate, 1.6 mm long, 1.5 mm wide, ciliate; hypogynous scales 4, roughly ovate, 0.5–0.8 mm diam., unequal, fleshy, keeled, style branches 2, 1 mm long, filiform (but slightly flattened). *Fruits* globose, 2–3 mm diam., warted, wax-covered. FIG. 1: 6.

A dwarf species with an underground rootstock which is confined to hills or mountains in Natal and the eastern Cape. Hutchinson in Fl. Cap. 5: 567 (1925) cites a specimen from the Transvaal, viz. *Worsdell* s.n. from Belford, but this specimen cannot be traced.

CAPE.—Adelaide: Winterberg, *Ecklon & Zeyher* 13.6. Albany: Tunnel Hill near Grahamstown, *Davies* s.n.; Grahamstown Nature Reserve, *Story* 2819; *Wells* 3867; 3869. Herschel: Sterkspruit, *Hepburn* 33 (GRA). Humansdorp: MacPeak, *Taylor* 928 (NBG). Keiskammahoeck: Cata, *Acocks* 15729; Hogsback Mountain, *Ratray* 330 (BOL); 408 (GRA). Komga: among rocks near Komga, *Flanagan* 93. Queenstown: *Zeyher* 20271 (SAM). Somerset East: summit of Boschberg, *Macowan* 1925. Stockenström: Katberg Pass, *Acocks* 12135. Stutterheim: summit of Dohne Peak, *Galpin* 2458.

NATAL.—Bergville: Mnweni, *Esterhuysen* 15547. Pietermaritzburg: Little Zwartkop, *Doidge* s.n. Underberg: top of rocky hills, Himeville, *Bews* s.n. Vryheid: Dumuka Mountain, *Gerstner* 4643.

A note on the type specimen at Kew by Hutchinson reads: "Someone has altered Zeyher to Drege in the Prodomus (Kew copy), but Zeyher's specimen must be the type, because it is female and De Candolle only describes the female". The reference in the Prodomus does not actually cite No. 5, but does refer to "Zeyher in H. Kew".

7. *Myrica cordifolia* L., Sp. Pl. 1025 (1753); A. Chev., Monogr. Myric. 168 (1901); Hutch. in Fl. Cap. 5, 2: 563–564 (1925); Adamson & Salter, Fl. Cape Penins. 312 (1950). Syntypes: Cape, LINN 1169.7 (lecto.); LINN 1169.8!

*M. cordifolia* L. var. *microphylla* A. Chev., Monogr. Myric. 170 (1901); Hutch., l.c. 564 (1925). Type: Doornhoogde in der Kapfläche, *Ecklon & Zeyher* 78.4 (G: in Herb. Delessert!; P: in Herb. Drake; PRE!). *M. elliptica* A. Chev., l.c. 166. t.8, figs. 1–8 & 10 (1901). Type: Cape, *Burmman* (G, holo!; PRE, photo).

A much-branched prostrate or erect shrub c. 1 m high (teste *Muir* 176, 3 m high). *Ultimate branches* puberulous to tomentulose. *Leaves* usually imbricate, sessile, broadly ovate to orbicular, 0.6–2.1 cm long, 0.4–1.5 cm wide, apex acute to round, mucronate, base cordate (rarely round or broadly cuneate), margin repand-dentate, glabrous, coriaceous, conspicuously gland-dotted especially below, midrib distinct, prominent below, lateral nerves 4–7 at obtuse angle to midrib, practically immersed. *Flowers* dioecious. *Male spikes* axillary, solitary, 2–5 mm long; rhachis glabrous or puberulous, slightly to fairly visible; bracts solitary, broadly ovate (broadly)-trullate, 1 mm long, 1.2–1.4 mm wide, concave on inner surface, ciliate glandular; stamens 2; anthers 0.5–1 mm long. *Female spikes* 1 cm long; rhachis glabrous, visible; bracts solitary ovate, 1.3–1.7 mm long, 1–1.3 mm wide, ciliate; hypogynous scales 4, roughly ovate, 0.4–0.7 mm diam., fleshy, ciliate, style branches 2, filiform, 0.6 mm long. *Fruits* globose, 0.5–0.8 mm diam., warted, densely covered with wax. FIG. 1: 7.

A common sand-dune shrub extending from the Cape Peninsula to near the mouth of the Kei River in the eastern Cape. The fruits are sometimes melted down and the wax is used as polish or for making candles. The plant is variously known as the Waxberry (Wasbessie), Candle Berry, Vegetable Wax or Glashout.

CAPE.—Alexandria: frequent on secondary dunes, *Archibald* 5022. Bathurst: Kasonga Mouth, *Britten* 2298; Port Alfred, *Hutton* 450; sand slopes of foreshore, Port Alfred, *Tyson* s.n. Bredasdorp: Papkuilsfontein; *Rycroft* 1839 (NBG); Buffelsjacht, *Van Breda* 943. Caledon: Mossel River, *Hermanus Pole Evans* 476; Betty's Bay, *Van Rensburg* 2151. East London: Nahoon River Mouth, *Galpin* 5679; East London, *Sim* s.n. Humansdorp: *Phillips* s.n. Komga: near Kei Mouth, *Flanagan* 1055. Peninsula: Houtbay, *Goulimis* 27256 (BOL); Cape Flats, *Isaac* 27254 (BOL); Schusters Bay, *Isaac* 27233 (BOL); Cape Flats, *Marloth* 8943; Robben Island, *Walgate* 633 (NBG); Uitvlugt, *Wolley*

*Dod* 2626 (BOL); Houtbay, *Schlechter* 965. Port Elizabeth: Humewood, *Long* 1373; *Sim* 1976. Riversdale: Still Bay, *Muir* 176; 5336; *Van Zinderen Bakker* 299. Simonstown: Fishhoek, near Kalkbay, *Peans* sub *Marloth* 13511. Somerset West: sand dunes at Strand, *Parker* 3660; 3574 (BOL); Somerset Strand dunes, *Strey* 714. Uitenhage: *Britten* 2084.

*M. cordifolia* is probably the most clear-cut of the South African species of *Myrica*: because of its characteristic leaf shape it cannot easily be confused with other species.

The type of *M. elliptica*, *Burmans* s.n., is matched by no other specimen I have seen. It has unequally round bases to the leaves, but otherwise resembles the eastern Cape forms of *M. cordifolia*, e.g. *Flanagan* 1055 etc. Occasionally specimens of *M. cordifolia* have the odd leaf with an unequally round instead of a cordate base. These facts, in my opinion, justify its attachment to *M. cordifolia* rather than its retention as a distinct species.

8. *Myrica kraussiana* *Buching. ex Meisn.* in *Flora* 6: 89 (1845); A. Chev., *Monogr. Myric.* 152–153 (1901); *Hutch.* in *Fl. Cap.* 6, 2: 566–567 (1925); *Adamson* in *Fl. Cape Penins.* 314 (1950). Type: Cape Peninsula, between rocks on summit of Steenberg Mountain, *Krauss* 1564, holo. (no specimens traced); summit of Steenberg Mountain, *Killick* 3456 (PRE, neo.).

*M. humilis* sensu C.DC. in DC., *Prodr.* 16, 2: 150 (1864); A. Chev., l.c. 158 (1901); *Hutch.* in *Fl. Cap.* 5, 2: 565–566 (1925); *Salter* in *Fl. Cape Penins.* 312 (1950), non *Cham. & Schlecht.* in *Linnaea* 6: 535 (1831); *M. kraussiana* *Buching. ex Meisn.* var. *latifolia* A. Chev., l.c. 153 (1901). Type: Cape, *Harvey* (CN, holo.!; PRE, photo.).

Low shrub. *Bark* brown to black. *Ultimate branches* tomentulose to tomentose. *Leaves* elliptic, 1.5–5.5 cm long, 0.8–3.5 cm wide, apex acute to round, apiculate, base round (rarely somewhat cordate), margin entire to crenatoserrate in upper half, coriaceous, glabrous to densely pubescent, midrib and lateral veins (9–14) prominent on lower surface which is conspicuously reticulate and gland-dotted; petiole 1–3 mm long. *Flowers* dioecious. *Male spikes* axillary, solitary, 1.5–2 cm long; bracts imbricate, trullate-ovate-spathulate-geniculate, large, 3.5–4.5 mm long, 2.5–4 mm wide, concave on inner surface, ciliate, gland-dotted; stamens 4–5; anthers 2.5 mm long, finely and shortly puberulous. *Female spikes* axillary, solitary, 2–8 cm long; rachis visible, tomentulose; bracts solitary, narrowly ovate, 3–4.8 mm long, 1.7 mm wide, ciliate, gland-dotted; hypogynous scales 5, ovate, 0.5 mm diam., keeled, fleshy; style branches 2, flattened, 2 mm long. *Fruits* subglobose, 2–3 mm diam., warted. FIG. 1: 8.

Chiefly confined to the Cape Peninsula, but extending eastwards as far as Zitzikamma.

CAPE.—Caledon: Langkloofberg, *Esterhuysen* 9143 (BOL); Hottentots Holland, *Stokoe* 8949 (BOL). Knysna: Lottering Bush, Zitzikamma, *Galpin* 4581. Peninsula: above Skeleton Gorge, *Esterhuysen* 12015; 12304; Devils Peak, upper slopes, *Esterhuysen* 12941; rocky plateau on Table Mountain, *Esterhuysen* 17563; Groenekloof, *Galpin* 4583; summit of Table Mountain, *Galpin* 4584; summit of Steenberg, *Killick* 3456; *Taylor* 3293; Table Mountain, *Marloth* 1939. Swellendam: slopes of Langebergen, *Esterhuysen* 10481 (BOL); Zuurbraak Mtn., *Galpin* 4582.

Up till now this species has been known as *M. humilis* *Cham. & Schlecht.*—probably because the type was never consulted in previous revisions of the genus. The type/s of *M. humilis* is *Bergius, Mund & Maire*. At first it was assumed that this represented one specimen, but on looking through *Chamisso* and *Schlechtendal's* descriptions in *Linnaea*, it became apparent that these authors frequently cited more than one specimen under a collective heading. For example, collectors who were not at the Cape at the same time, are often linked together, e.g. *Bergius, Ecklon & Zeyher*. After failing to locate a *Bergius, Mund and Maire* specimen, an isotype of *Mund & Maire* s.n. was received from Geneva (*Herb. Boiss.*) annotated as *M. humilis* and bearing a type label. Much to the author's surprise this specimen did not represent

our present concept of *M. humilis*, but was actually *M. burmannii*. Moreover, it fitted the original description of *M. humilis* better than what we presently call *M. humilis*. This means that *M. burmannii* is a synonym of *M. humilis* and that what we have been calling *M. burmannii* must now be known as *M. humilis*. It also means that another name must be found for *M. humilis* auct. The only name available is *Myrica kraussiana* Buching. ex Meisn. The type is Krauss 1564, but this specimen cannot be traced in any European herbarium. In the original description of *M. kraussiana* the type locality is given as "inter rupes in summitate montium Steenberge, Cap. Sept. Alt. 3,000'". In May, 1962, the author visited this mountain and the only *Myrica* found growing there was a somewhat depauperate form of what we have been calling *M. humilis*. In view of this, it seems reasonable to adopt the name *M. kraussiana*. It should be mentioned also that *M. kraussiana* var. *latifolia* clearly equals *M. humilis* auct.

9. *Myrica humilis* Cham. & Schlechtld. in Linnaea 6: 535 (1831); C.DC. in DC., Prodr. 16, 2: 150 (1864); A. Chev., Monogr. Myric. 158 (1901); Hutch. in Fl. Cap. 5, 2: 565-566 (1925). Type: Cape, "Bergius, Mund & Maire" (Mund & Maire, G, iso.!, PRE, photo.).

*M. burmannii* E. Mey. ex C.DC. in DC., Prodr. 16, 2: 149 (1864); A. Chev., l.c. 154 (1901); Hutch., l.c. 564-565 (1925); Adamson in Fl. Cape Penins. 312 (1950). Type: Kleyn Rivier, Caledon Division, Zeyher 3875 (K, holo.!, PRE!, SAM!). *M. brevifolia* E. Mey. ex C.DC. var. *subintegra* A. Chev. l.c. 160 (1901). Type: Burmann 65 (G, holo.; PRE, photo.). *M. dregeana* A. Chev., l.c. 155 (1901); Hutch. l.c. 565 (1925). Type: Van Stadens Berg, Uitenhage Division, Ecklon & Zeyher 4·7 (G, holo.!, K!, PRE!, SAM!). *M. glabrissima* A. Chev., l.c. 156-157 (1901). Hutch. l.c., 569 (1925). Type: Long Kloof, about the source of Keurboom's River in a rocky kloof, Mar., George Division, Burchell 5081 (P, holo.; K!, PRE, photo. of iso.). *M. myrtifolia* A. Chev., l.c. 155, t.7, fig. A (1901). Type: Cape, specimen ex *Herb. Pet. Thouars* (P, holo.!, PRE, photo.).

Shrub,  $\frac{1}{2}$ -1 m high. Bark pale grey to black. Ultimate branches glabrous to tomentulose. Leaves elliptic-ovate-broadly ovate (rarely orbicular), 2·5-4·5 cm long, 0·8-2·5 cm wide, apex acute to obtuse, apiculate, base round (occasionally somewhat cuneate), margin entire or with few serrations in upper quarter, midrib fairly prominent, lateral veins 5-10 subimmersed, lower surface reticulate, glabrous, occasionally pubescent on midrib. Flowers dioecious. Male spikes solitary, axillary, 1-2 cm long; rhachis glabrous to puberulous, scarcely visible; bracts broadly trullate-ovate ridged, concave on inner surface, ciliate, gland-dotted, 1·8-2·8 mm long, 2·3-2·5 mm wide; stamens 4; anthers 1·8 mm long, epapillose. Female spikes solitary, axillary, 2·5-4 cm long; rhachis visible, glabrous to tomentulose; bracts broadly ovate, 1·3-1·7 mm long, 1·3-1·75 mm wide, ciliate, gland-dotted; hypogynous scales 4, ovate, 0·5 mm diam., fleshy, ciliate; style branches flattened, thick, long. Fruit globose, 4-5 mm diam., warted, covered with white wax. FIG. 1:9.

A coastal species occurring between the districts of Bredasdorp and Albany.

CAPE.—Albany: near Grahamstown, Noel 1323. Bredasdorp: summit of Potberg, Pillans 9315. Caledon: Hottentots Holland Mtns. Stokoe 7981 (BOL). George: near Touw River, Burchell 5739; near George, Michell 16094; near George, Schlechter 5776; Outeniqua Pass, Van Breda 1134. Humansdorp: Flats, Ratelsbosch, Fourcades 29; Thode A. 1013; Assegai Bosch, Thode A. 2571. Knysna: Lottering Bush, Zitzikama, Galpin 4581; Duthie 734 (BOL). Melkhoutkraal, Keet 555; 556; 3070; 3071. Oudtshoorn: top of Robinson Pass, Acocks 20583. Port Elizabeth: Van Stadensberg, Ecklon & Zeyher 4·7 (BOL). Riversdale: Aasvoëlbergnek, Horn s.n.; Langeberg above Plattekloof, Muir 387; Driefontein, Albertinia, Muir 959; Langeberg above Nivo, Muir 2638; stony flats near Albertinia, Muir 4531. Swellendam: slopes in Tradouw Pass, Marloth 12163. Uniondale: Kouga Mts., Esterhuysen 10784; 10821 (BOL). Uitenhage: Zuurburg Mountain, Fries, Norlindh & Weimarck 579.

See discussion under *M. kraussiana* for reasons why this species, known up to now as *M. burmannii*, must be called *M. humilis*.

*M. humilis* is an extremely variable species as regards leaf shape, size and pubescence. Leaf shape varies from elliptic-ovate to broadly ovate (rarely orbicular) and size from 2·5–4·5 cm long and 0·8–2·5 cm wide. Two species which have been sunk under *M. humilis* represent the extremes in degree of pubescence of this species: *M. glabrissima* is completely glabrous, whereas *M. dregeana* has tomentulose ultimate branches with hairs on the midrib of the leaves. The rolled edges of the leaves of *M. dregeana*, as represented by the type, *Ecklon & Zeyher* 4·7, can probably be attributed to the way in which the specimen was dried rather than to an inherent character of the plant.

*M. myrtifolia* can be linked with *M. humilis* via *Michell* 16094 from George, which serves as a good intermediate.

*Species dubia*:—

*Myrica ovata* Wendl. f. in Bartling & Wendland, *Beit. zur Botanik*, 2: 3 (1825).

The identity of this species is uncertain. The type, *Hesse* s.n., could not be traced: the author tried B, GOET, HAN and S without success.