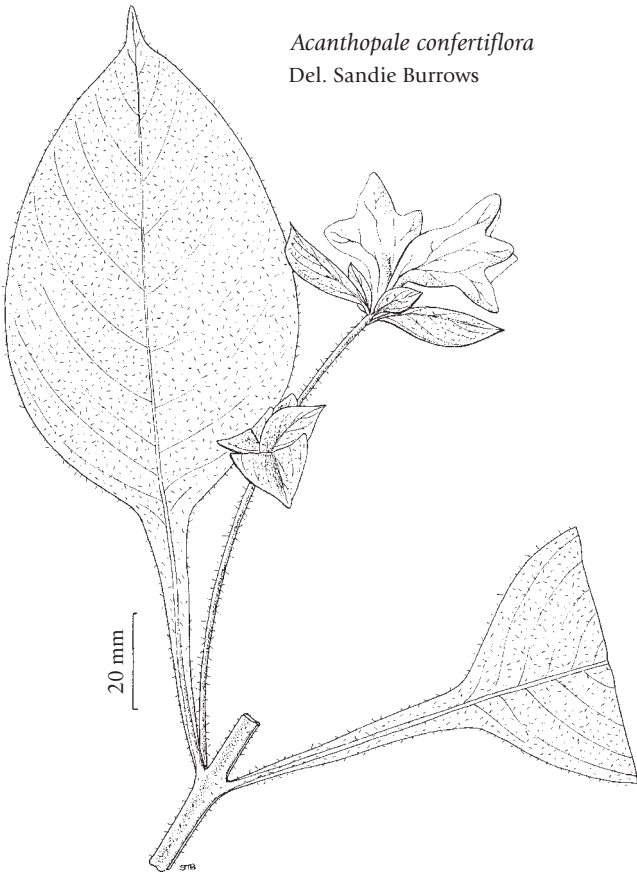
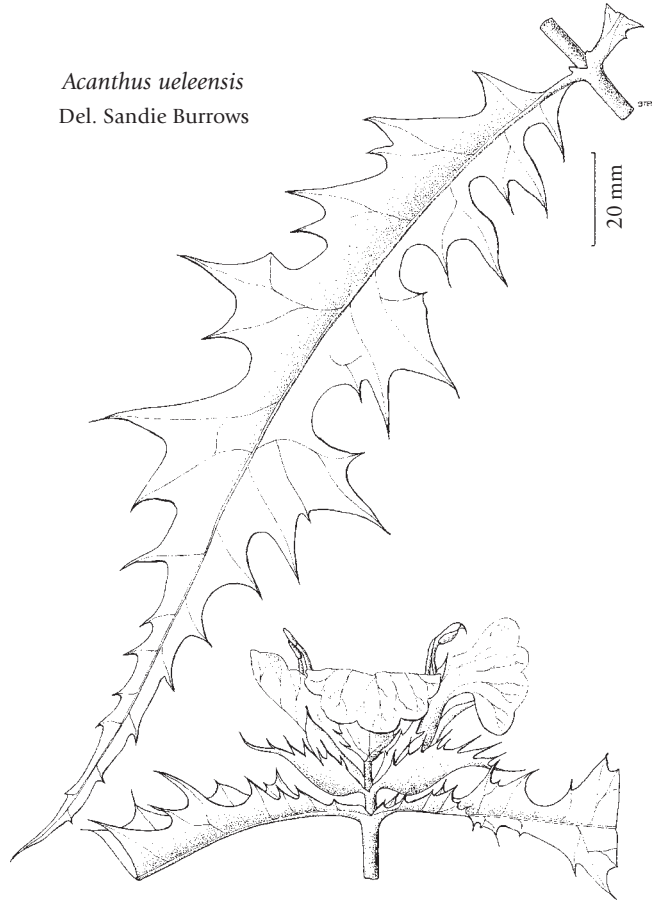


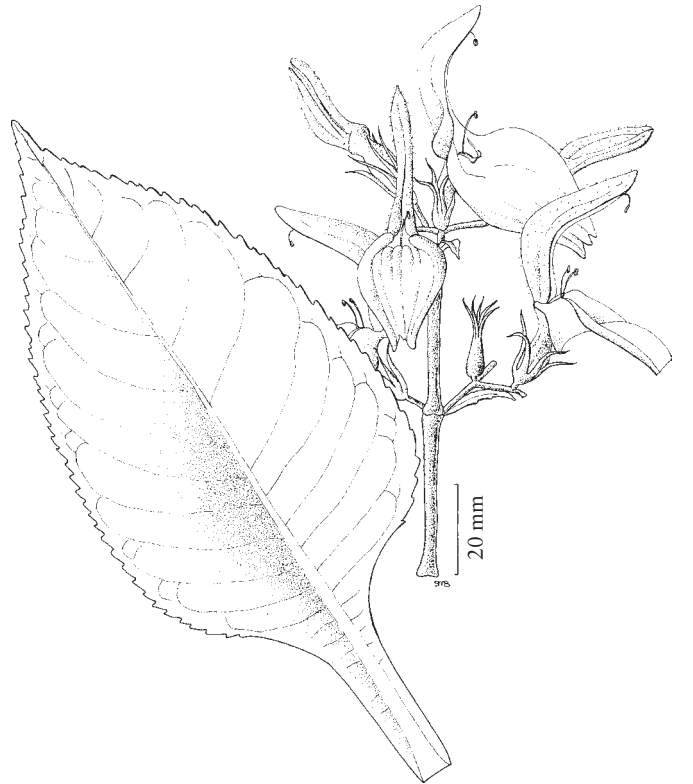
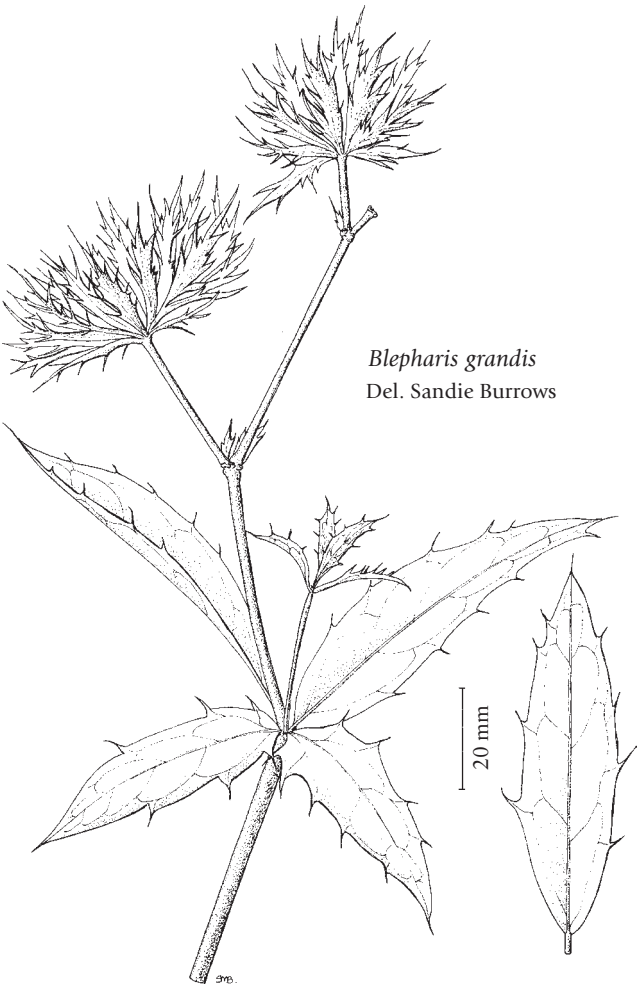
Acanthopale confertiflora
Del. Sandie Burrows



Acanthus ueleensis
Del. Sandie Burrows

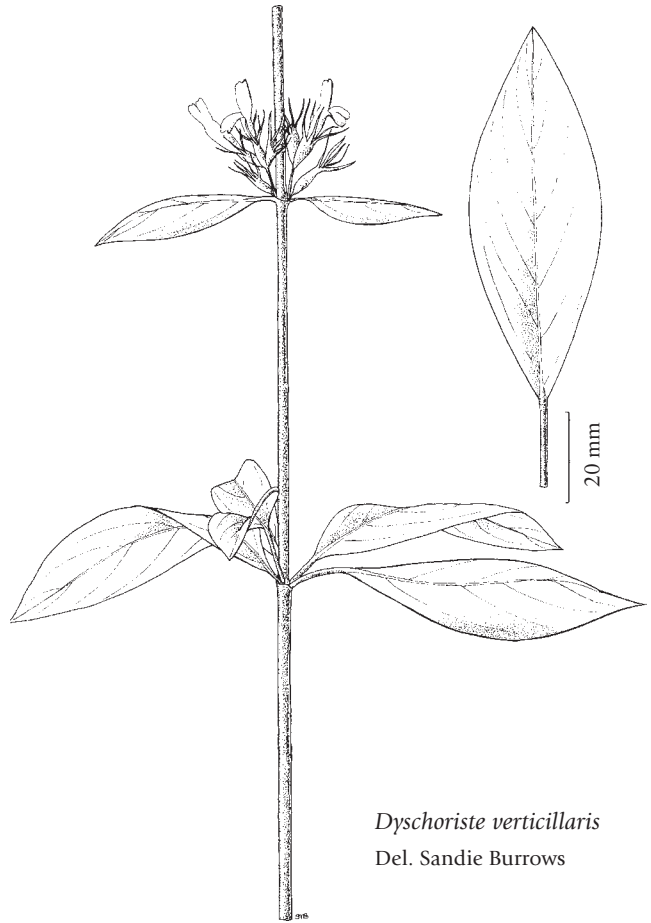
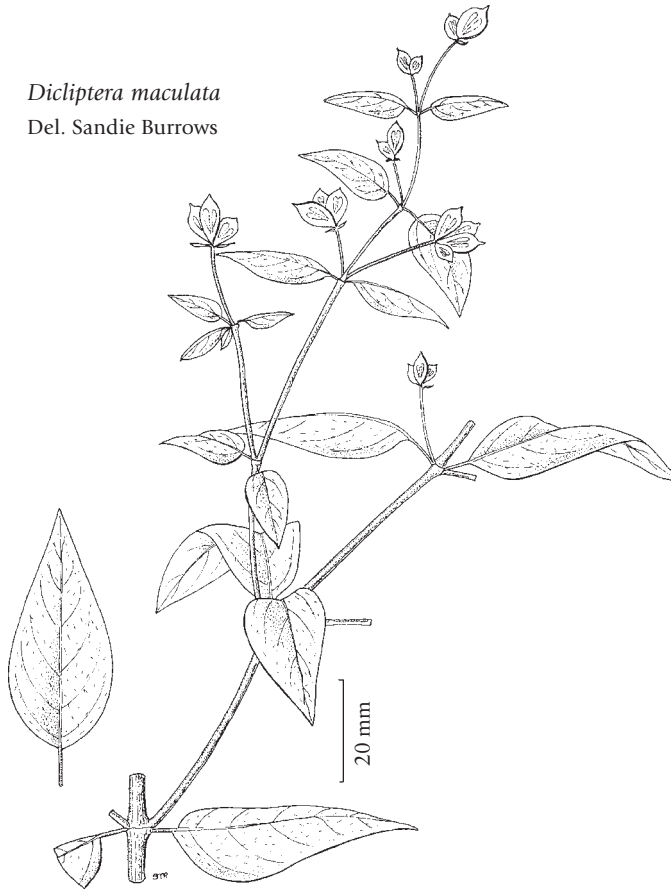


Blepharis grandis
Del. Sandie Burrows

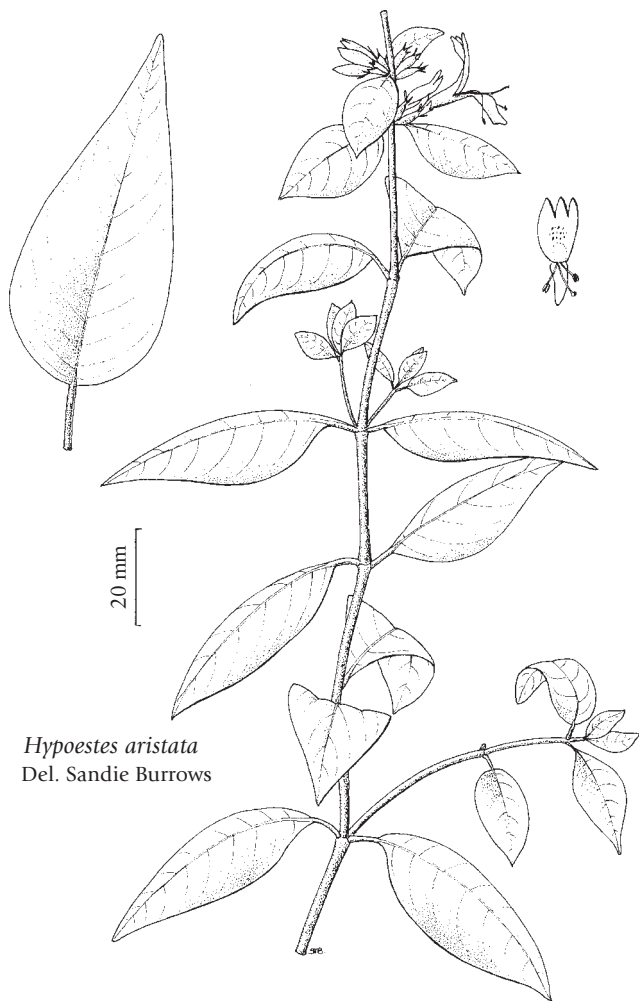


Brillantaisia kirungae
Del. Sandie Burrows

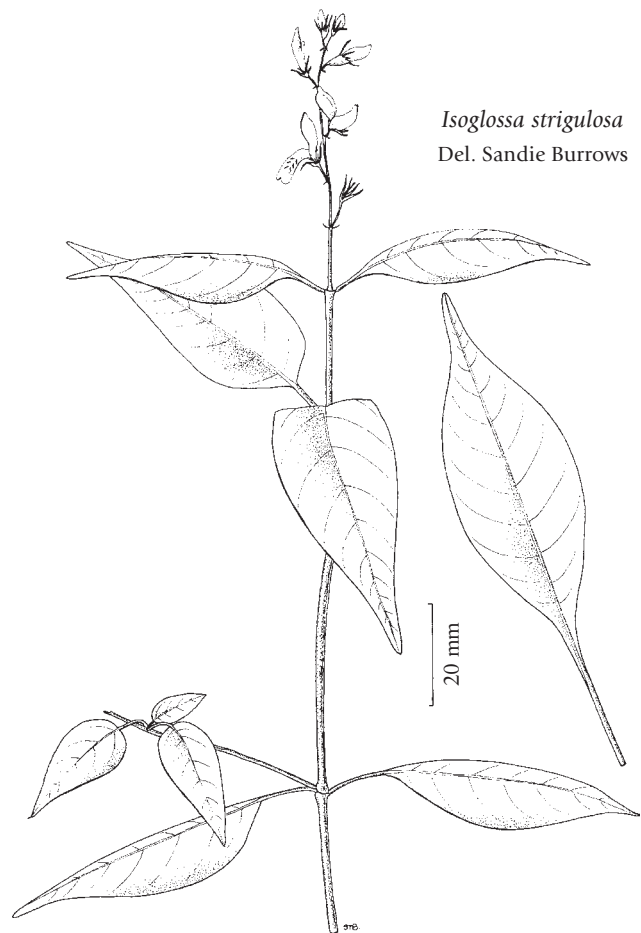
Dicliptera maculata
Del. Sandie Burrows



Dyschoriste verticillaris
Del. Sandie Burrows



Hypoestes aristata
Del. Sandie Burrows



Isoglossa strigulosa
Del. Sandie Burrows

& *Synge 214* (K, MAL).

Zambia. Nyika Plateau, Chowo Forest, cf. *Dowsett-Lemaire 96* (K?).

Isoglossa substrobilina C.B. Clarke or aff.

Trailing herb with ascending stems and ovate-elliptic tapering leaves, flowers glandular-hairy in terminal and lateral uninterrupted spike-like racemes, bracts spoon-shaped or obovate. It is not known whether Dowsett-Lemaire's plant has been described as a separate taxon since the publication of her report and, as such, no detail was available on how it differs from the above description. Known from the Nyika Plateau and the Misuku Hills, in montane forest undergrowth.

Source. Dowsett-Lemaire (1985).

Zambia. Nyika Plateau, Chowo and Kasoma Forests, cf. *Dowsett-Lemaire 260* (K?).

Isoglossa strigulosa C.B. Clarke ❖

Ascending herb, 1–1.5 m tall; corolla expanded, white with dark red-purple marks; in montane forest undergrowth. Known only from the Nyika Plateau and the Misuku Hills.

Source. Brummitt (1973); PRE.

Zambia. Nyika Plateau, Chowo Forest, 2,160 m, *Pawek 10027* (MO, PRE, UC, K, SRGH, MAL).

Malawi. Nyika National Park, Kawozya, forest E. of summit, 1972, *Brummitt & Synge 215* (K, MAL, SRGH).

Justicia linearispica C.B. Clarke

Herbaceous perennial herb from a woody root; leaves sessile, 25 mm x 6 mm, glabrescent; floral leaves scarcely 6 mm long, narrowly oblong or linear, sepals 4, flowers ca 8 mm long. Eastern and southern tropical Africa.

Source. UZL; PRE.

Malawi. Nyika National Park, without locality, 1958, *Robson 193* (PRE); without locality, 2000, *Mwanyambo 518* (MAL).

No country given. 1967, *Richards 22451* (UZL).

Justicia mollugo C.B. Clarke

Minute scabrous hispid annual herb; leaves oblong, up to 19 mm long; flowers axillary, sessile, clustered, corolla scarcely 5 mm long; in ephemeral habitats. Eastern tropical Africa.

Malawi. Nyika National Park, Domwe Viewpoint parking area, 2000, *Winter 4103* (MAL); Fingira Rock, 2000, *Winter 4233* (PRE).

Justicia nuttii C.B. Clarke

Justicia goetzei Lindau; *Justicia schliebenii* Mildbr.

Small, pubescent herbaceous perennial with clustered stems up to 260 mm tall; leaves 20–37 mm x ca 15 mm; flowers ca 12 mm long, white with a few red markings on midlobe of lower lip; common in frequently burnt high-altitude short grassland. From the Iringa region in S. Tanzania to Dedza in central Malawi.

Malawi. Nyika National Park, hill E.S.E. of Dembo Bridge, 2000, *Winter 4046* (MAL, PRE, SRGH, UZL); Mpopoti, 2000, *Mwanyambo 553* (MAL); 2000, *Thera 3056* (MAL).

Justicia phyllostachys C.B. Clarke

Slender hairy perennial herb up to 0.6 m tall; leaves up to 100 x 41 mm, petiole up to 37 mm long; flowers in terminal spikes, floral leaves ca 16 mm long, ovate or elliptic, sepals 5, flowers 10–19 mm long, varying from mauve-pink to red purple with purple nectar guides or with white markings on midlobe of lower lip; in scrub or forest margins. D.R.C., Tanzania, Angola, Zambia, Malawi, Mozambique, and Zimbabwe.

Malawi. Nyika Plateau, 1896, *Whyte 118* (K, holo.); North Rukuru Valley, 2000, *Winter 4117* (MAL).

Zambia. Nyika Plateau, near Rest House on Chisanga Falls Road, 2000, *Winter 4014* (UZL).

Justicia striata (Klotzsch) Bullock ❖

Adhatoda striata Klotzsch; *Justicia melampyrum* S. Moore

Very variable, slender herb of open forest and woodland, supported by surrounding shrubs and grasses; leaves mostly elliptic-oblong, short-petioled,

38–52 mm long, but lower leaves can be broadly ovate with longer petioles; flowers axillary, floral leaves usually round or ovate, flowers usually white, also pale mauve or magenta, 8.5–10(–13) mm long. Widespread throughout tropical Africa. This name may have been misapplied to *J. phyllostachys* C.B. Clarke (above).

Malawi. Nyika National Park, Vintintha Hill slope, 2000, *Mwanyambo 575* (MAL).

Lepidagathis sparsiceps C.B. Clarke ❖

Procumbent perennial herb with linear leaves; flowers all at base of stems, heads woolly; on sparsely vegetated, gravelly slopes. Eastern Africa.

Source. Brummitt (1973).

Malawi. Nyika National Park, S. slopes of Kawozya, 1972, *Brummitt & Synge 173* (K, MAL, SRGH); N. Rukuru Valley, 2000, *Winter 4110* (MAL).

Mellera submutica C.B. Clarke ❖

Onus submuticus (C.B. Clarke) Gilli; *Pseudobarleria lindau* Dewevre

Perennial similar to *Mimulopsis*, 1 m tall; leaves ovate, 75 x 50 mm, cordate, margin toothed; inflorescence pyramidal, glandular, flowers 25 mm long, lilac-blue with orange throat, tube gradually dilated upwards, mouth very oblique, 2-lipped, anticalyx lobe twice as broad as the others. Eastern Africa.

Source. Brummitt (1973).

Malawi. Nyika National Park, S. slopes of Kawozya, 1972, *Brummitt & Synge 186* (K, MAL, SRGH).

Metarungia pubinervia (T. Anders.) Baden ❖

Anisotes pubinervis (T. Anders.) Heine; *Macrorungia pubinervia* (T. Anders.) C.B. Clarke

Shrub or rarely small tree similar to *Anisotes nyassae*, 2–5 m high, sometimes with aerial roots; leaves short-stalked, to 200 x 80 mm; spikes axillary, one-sided, 60 mm long, hanging, often borne on bare branches below the leaves; bracts pinkish, ovate to elliptic, flat, 10–14(19) mm long, with a hyaline margin; flowers red or maroon, rarely white, 30 mm long; lower lip lobed at tip only; in undergrowth of drier forests. Ethiopia to South Africa. Baden's (1981b) assertion (based on a single character) that *Macrorungia* was not closely related to *Anisotes* is unconvincing.

Source. Dowsett-Lemaire (1985).

Malawi. Nyika National Park, Kasyaula Forest, cf. *Dowsett-Lemaire 188* (K?).

Zambia. Nyika Plateau, Kasoma Forest, *Dowsett-Lemaire 259* (K?).

Mimulopsis solmsii Schweinf. ❖

Mimulopsis violacea Lindau; *Mimulopsis sesamoides* S. Moore

Ascending, scrambling shrub up to 2.5 m tall, often covered with long reddish hairs; leaves ovate, to 150 mm, often doubly round- or sharp-toothed; inflorescence glandular, flowers trumpet-shaped subequally 5-lobed, 30–35 mm long, white to pale blue or lilac with orange markings, or yellowish with purple guide lines within. Widespread in tropical Africa.

Source. Brummitt (1973); Dowsett-Lemaire (1985).

Malawi. Nyika National Park, Kawozya summit, 1972, *Brummitt & Synge 200* (K, MAL).

Zambia. Nyika Plateau, Manyenjere and Chowo Forests, cf. *Dowsett-Lemaire 261* (K?).

Monechma varians C.B. Clarke ❖

Stems simple, 300 mm from a woody rootstock; flowers white, similar to those of *Justicia*; seeds solitary in each cell, and smooth (2 per cell and rough in *Justicia*). Endemic to the Nyika Plateau.

Source. Brummitt (1973).

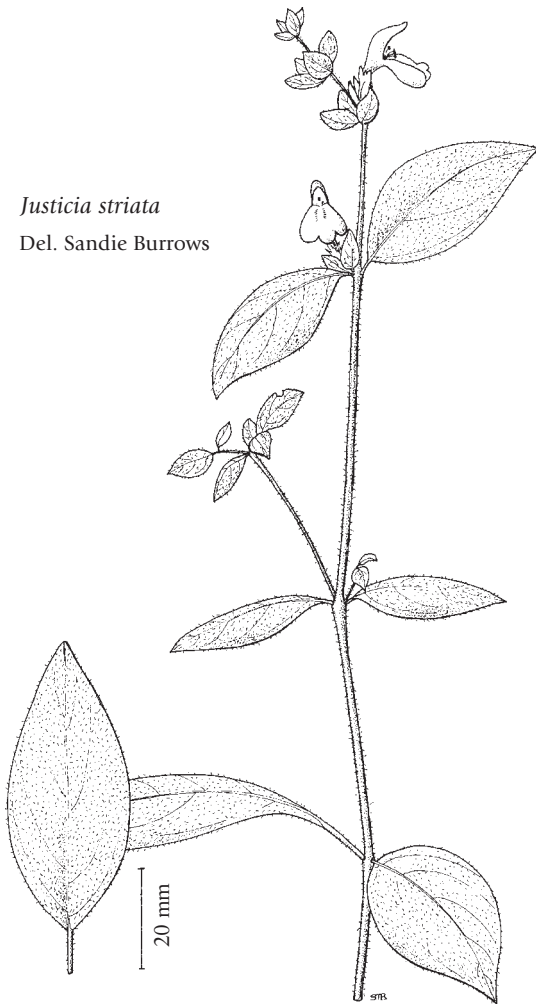
Malawi. Nyika National Park, Sawi Valley, 1972, *Synge 437* (K, MAL).

Peristrophe aculeata (C.B. Clarke) R.K. Brummitt ❖

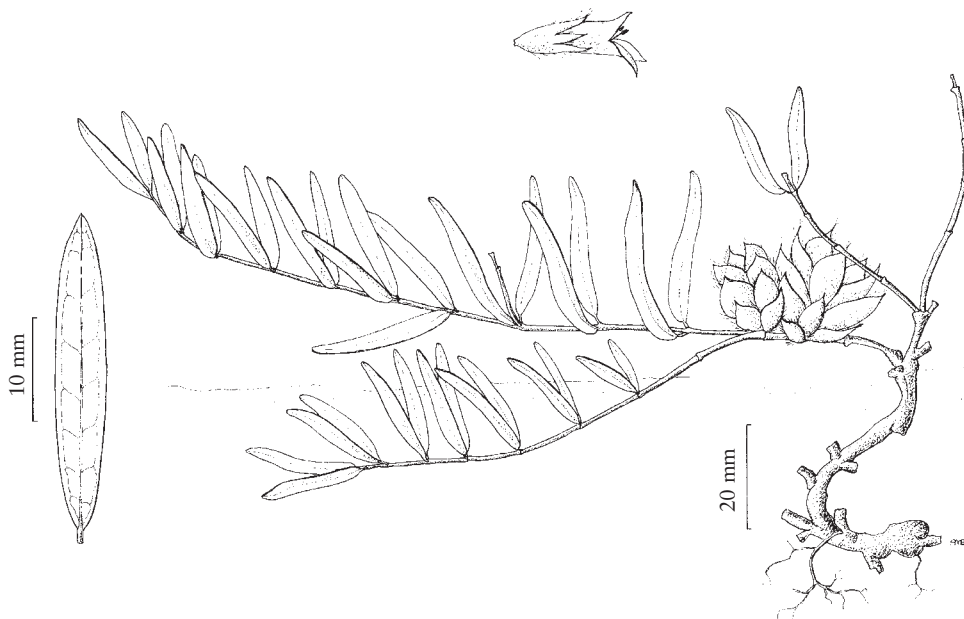
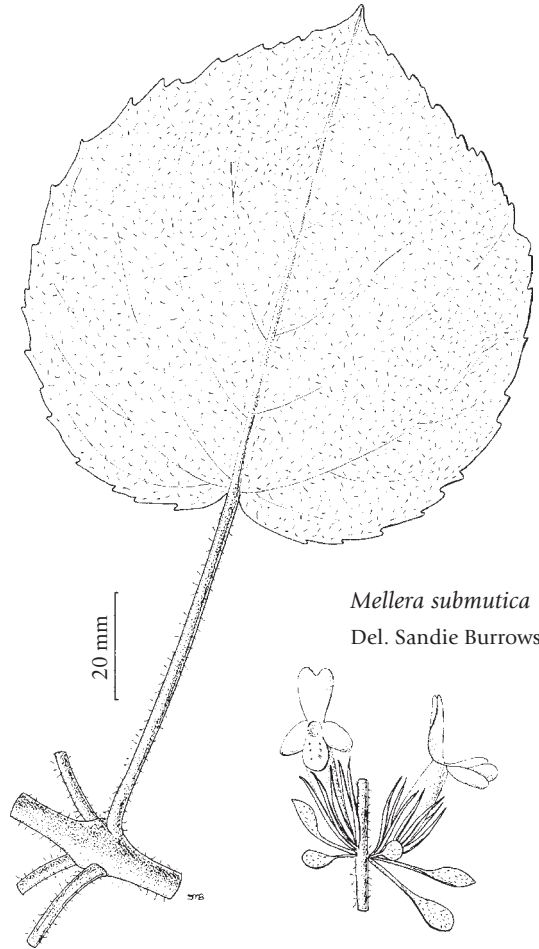
Dicliptera aculeata C.B. Clarke

Similar to *P. paniculata*, but perennial, and with a 17–27 mm long corolla; in woodland. Northern Malawi. This record casts further doubt onto the occurrence of *P. paniculata* on the Nyika Plateau. The placental type is the only consistent character for distinguishing *Peristrophe* from *Dicliptera* (Balkwill 1996a, 1996b).

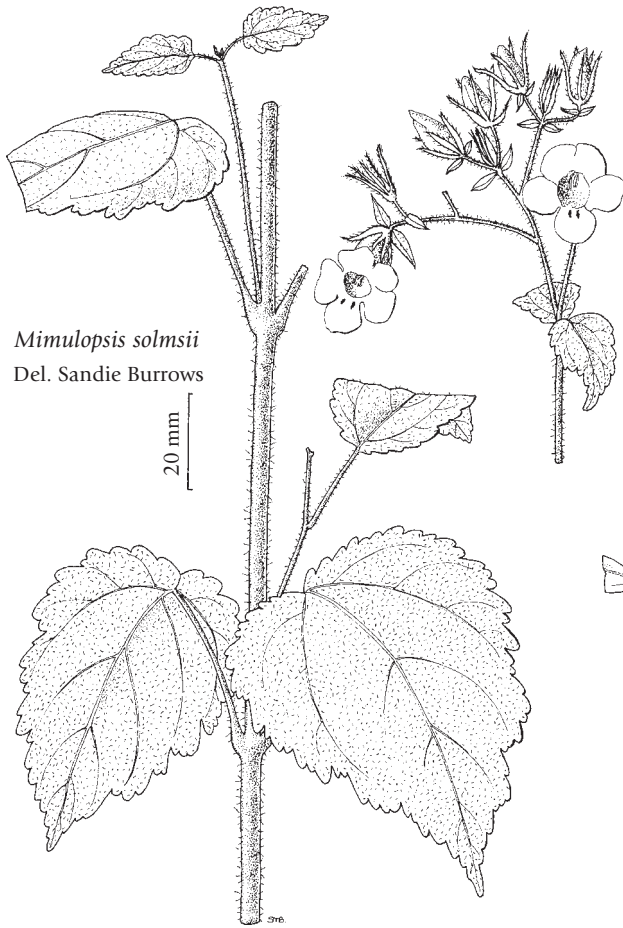
Justicia striata
Del. Sandie Burrows



Mellera submutica
Del. Sandie Burrows



Lepidagathis sparsiceps
Del. Sandie Burrows



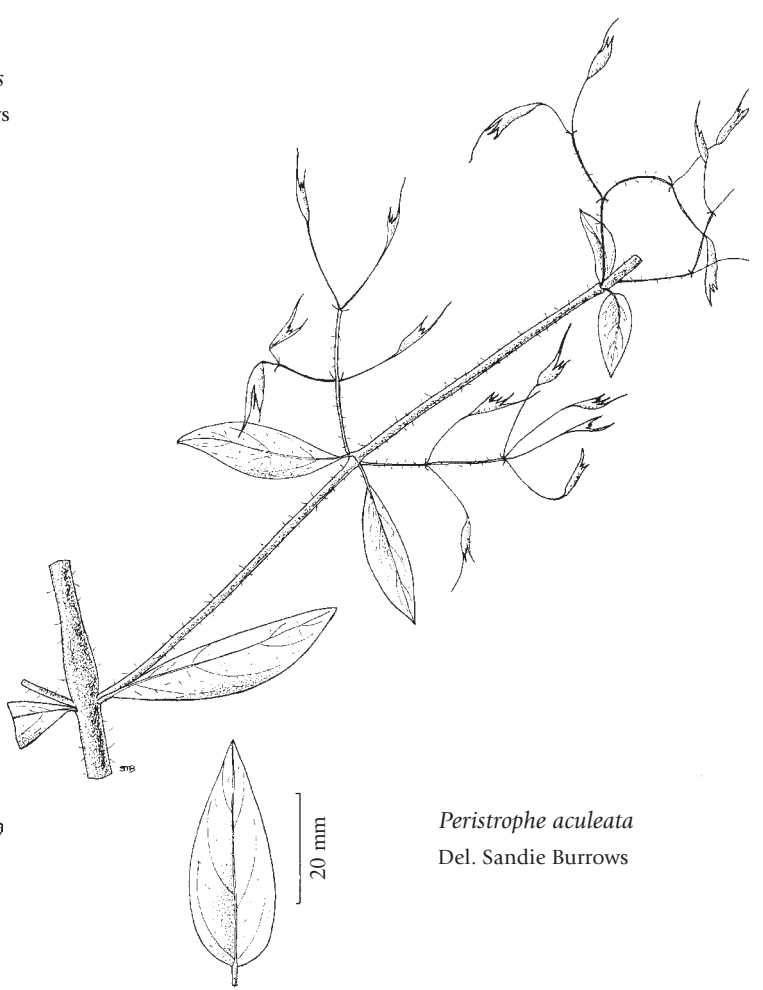
Mimulopsis solmsii
Del. Sandie Burrows



Metarungia pubinervia
Del. Sandie Burrows



Monechma varians
Del. Sandie Burrows



Peristrophe aculeata
Del. Sandie Burrows

Source. Brummitt (1991).

Malawi. Nyika Plateau, 1,220–1,830 m, 1896, *Whyte* s.n. (K, lecto.), 1,830–2,135 m, *Whyte* s.n. (K).

Peristrophe paniculata (Forssk.) Brummitt

Dianthera bicalyculata Retz.; *Justicia bicalyculata* (Retz.) Vahl;
? *Peristrophe dewewrei* De Wild. & Durand

Usually unbranched erect annual herb to 2 m, stems 6-ridged; leaves shortly-stalked, 60–110 x 30–40 mm; flowers magenta, 10 mm long, in a large branched panicle, paired bracts very different in size; in open bush land and dry rocky soils up to 1,500 m. Namibia to India. As the dry habitat typical for this taxon is not represented in the Nyika National Park, there is a possibility that the name is misapplied here. The situation requires investigation to assess the occurrence of *P. paniculata* and the identity of *P. dewewrei*. Similar to *Dicliptera maculata*.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Peristrophe pumila (Lindau) Gilli

Dicliptera pumila (Lindau) Dandy ex Brenan; *Peristrophe usta*
C.B. Clarke

Creeping or suberect, hairy pyrophyte, with stems 100 mm tall from a woody rootstock; leaves elliptic, to 40 mm long; flowers in erect spikes, bracts with dense stalked glandular hairs, petals white, mauve-tipped or magenta; in short or open and wooded grassland, usually flowering before the leaves are fully developed, soon after fire. Sudan to Zimbabwe.

Source. Brummitt (1973).

Malawi. Nyika National Park, valley N. of Nganda, 1972, *Synge* 387 (K, MAL).

Phaulopsis imbricata (Forssk.) Sweet ❖

Ruellia imbricata Forssk.; *Aetheilema imbricatum* (Forssk.) Spreng;
Micranthus imbricatus (Forssk.) O.Kuntze

Glandular-hairy trailing herb with ascending stems and stalked leaves; leaves of a pair usually unequal, bases asymmetrical; flowers white with a bent tube, small, in clusters with overlapping, pale, ciliate bracts; in shade or semi-shade in woodland or forest margins. Widespread in eastern and southern Africa.

Malawi. Nyika National Park, Fingira Rock, 2000, *Winter* 4219 (MAL).

Thunbergia alata Bojer ex Sims ❖

Thunbergia fuscata T.Anders. ex Lindau; *Valentiana volubilis* Raf.

Climbing perennial herb up to 3 m, petiole winged; leaves arrow-shaped with five veins from the base; flowers yellow or orange, with a black or

deep purple throat; bush land and thicket. Widespread in eastern and W. Africa; also on Mauritius.

Source. Brummitt (1973).

Malawi. Nyika National Park, Vithinza Hill slope, 2000, *Mwanyambo* 576 (MAL); Jalawe Viewpoint, 2000, *Thera* 3074 (MAL); North Rukuru Valley, 2000, *Winter* 4116 (MAL, PRE); 8 km E. of Nganda, 1972, *Brummitt, Munthali & Synge* 125 (K, MAL, SRGH).

Thunbergia kirkiana T.Anders.

Low semi-procumbent perennial herb; leaf bases sometimes slightly winged, giving the leaf an arrow shape; flowers large, translucent white with a yellow throat; in miombo woodland, spring-flowering. D.R.C., Tanzania, Angola, Zambia, Malawi, Mozambique, and Zimbabwe.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Thunbergia lancifolia T.Anders.

Herbaceous perennial up to 600 mm tall, with erect annual stems from a woody rootstock; leaves narrowly elliptic; flowers ca 50 mm diameter, pale to dark blue or tinged with violet, throat yellow, corolla tube slightly inflated, calyx covered with minute glistening hairs; in open grassland, or along the edge of *Brachystegia* woodland, spring-flowering. From Ethiopia to Zimbabwe.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Thunbergia mollis Lindau

Stem with a rusty pubescence or glabrous; leaves ovate, cordate or hastate, 60 x 36 mm, strigose on both sides, petiole rusty pubescent, 25 mm long; bracteoles 5-nerved, the middle one forming a marked keel; corolla large, purple above, tube 38 mm long; habitat unknown. Distribution range outside of Malawi is unknown.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Thunbergia petersiana Lindau

Stem-climbing, with scattered hairs; leaves cordate, long acuminate, 75 x 57 mm, pilose on both sides, petiole more than 50 mm long; bracteoles 3-nerved and 3-keeled, reticulated; corolla large, violet, tube 25 mm long. As this taxon was originally known from the lower Zambezi River basin in Mozambique, presumably in a different habitat, there is some doubt as to whether the Nyika taxon is the same.

Source. Dowsett-Lemaire (1985).

No country given. Nyika Plateau, cf. *Dowsett-Lemaire* 263 (K?).

Excluded species

Anisotes nyassae Baden

Found in the Karonga district of Malawi, S. Tanzania, and N.E. Zambia. Dowsett-Lemaire's record appears to be a sight record, based on material in bud, which 'appeared similar to *A. nyassae* collected in the nearby forests of the N. Viphya.' Since she recorded the similar *Metarungia pubinervia* as well, it seems possible that both taxa could occur on the Nyika, but since there is no specimen to confirm its existence, it is excluded here.

Malawi. Nyika Plateau, eastern escarpment submontane forests (Dowsett-Lemaire 1985: 354).

Blepharis buchneri Lindau

Large leaf pair in whorls more than (3–)5 times longer than smaller pair. Smaller pair rhomboid-triangular, 3(–)7-veined from the base, rarely pinnately veined. The correct application of this name is doubted, as *B. buchneri* is not recorded for Malawi in the recent revision, and as this name has often been used erroneously for what is actually *B. grandis*.

Source. Vollesen (2000).

Malawi. Nyika National Park, Runyina River, 2000, *Phiri* 3784 (MAL).

No country given. *Verboom* s.n. (UZL).

Dyschoriste albiflora Lindau

The authenticity of this record could not be confirmed. Known only from

Tanzania.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Justicia kirkiana T.Anders.

Justicia fasciata Lindau

Slender erect annual herb; leaves narrowly lanceolate, up to 62 x 5 mm; flowers yellow, with a dark stripe on each lobe of the lower lip, bracts and calyx with long, cottony hairs. Known only from sandy savanna at low altitudes (*Flora of southern Africa*; PRE specimens from other localities). A doubtful record perhaps confused with *J. flava* (Vahl) Vahl.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

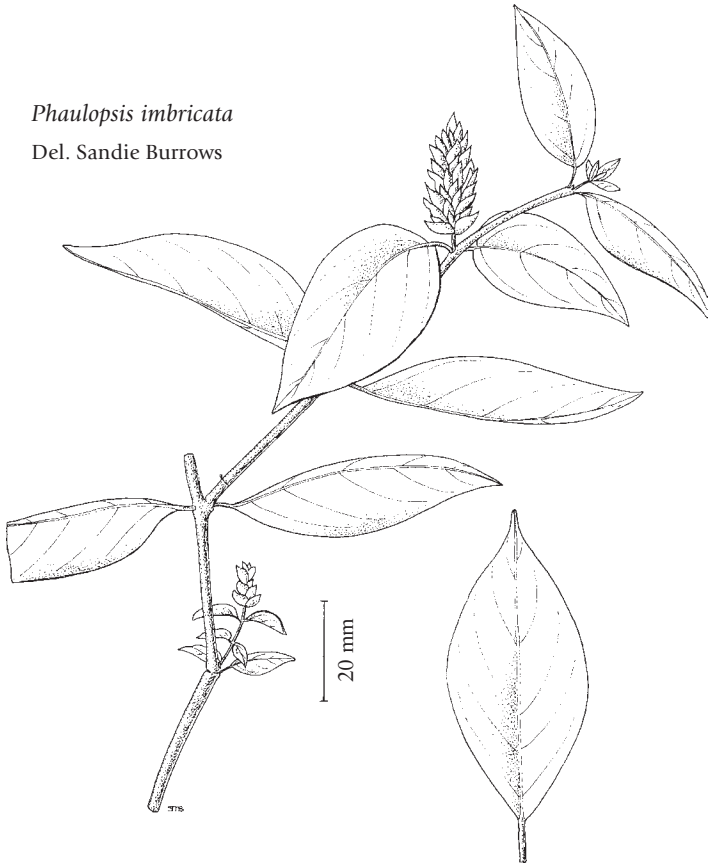
Justicia petiolaris (Nees) T.Anders. subsp. **bowiei** (C.B. Clarke) Immelman

Justicia mutica C.B. Clarke

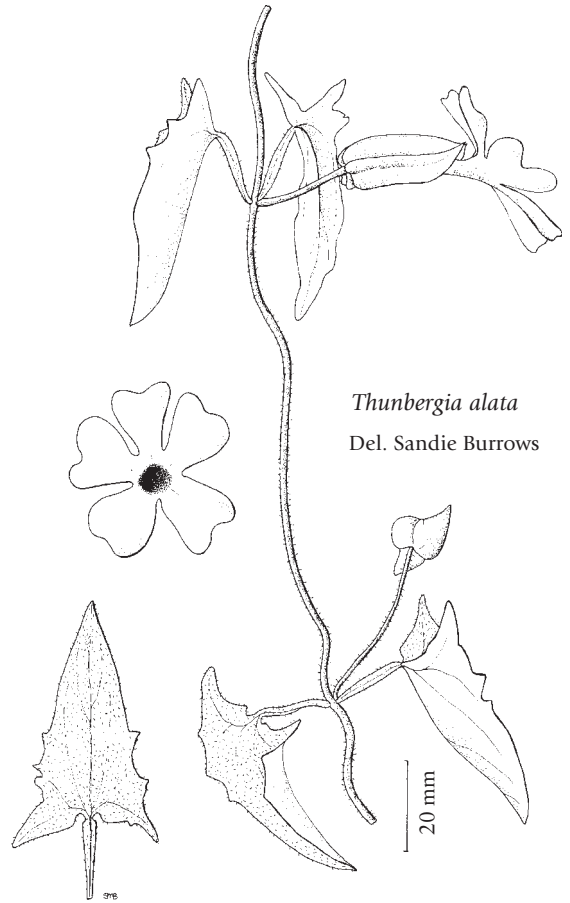
This species is known only from the Eastern Cape Province of South Africa. Confusion with *J. linearispica*, a species found on Nyika Plateau and from the same section, is suspected.

Malawi. Nyika National Park, Mpopoti Peak, 2000, *Izidine* 62 (LMA), det: H. Patel.

Phaulopsis imbricata
Del. Sandie Burrows



Thunbergia alata
Del. Sandie Burrows



Alangium chinense
Del. Sandie Burrows

ALANGIACEAE

Alangium chinense (Lour.) Harms ❖

Tree 9–30 m tall, leaves simple, base asymmetric, flowers white to yellow, sweetly scented; in lowland and upland forest, next to streams; up to 2,000 m in this area. Widespread in central Africa, extending through tropical Asia to Japan and Indonesia. A very rare tree in the *Flora zambesiaca*

area; in Malawi known only from two other areas (Misuku Hills and Usumara on the Viphya).

Source. Dowsett-Lemaire (1990: 75).

Malawi. Nyika Plateau, Kasyaula Forest, *Dowsett-Lemaire 335* (FHO).

AMARANTHACEAE

Note. It appears that this relatively large family is under-collected on the Nyika and many more than the three taxa listed below occur there.

Achyranthes aspera L. var. **pubescens** (Moq.) Townsend ❖

Erect or straggling perennial herb, stems 4-angled, leaves opposite, broadly elliptic, hairy; flowers in a slender terminal spike, minute and enclosed in a downward-pointing spiny bract; in many habitats, including evergreen forest, scrub, woodland, often as a weed in disturbed areas. Widespread throughout the tropics.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Amaranthus hybridus L. subsp. **cruentus** (L.) Thell. ❖

Amaranthus cruentus L.; *Amaranthus paniculatus* L.; *Amaranthus chlorostachys* auctt. non Willd.

Robust annual herb to 2 m tall or more, leaves broadly lanceolate to rhomboid, more or less hairless; flowers in a dense terminal spike, red, green or

yellowish; in disturbed grassland, a weed of cultivation. This subspecies is presumed to be of (Central) American origin, but is now widespread in the tropical and subtropical regions of the world. However, if collected in the remote and almost uninhabited Nyika of 1903 (see specimen), then it seems unlikely to have been introduced.

Source. *Flora zambesiaca* 9(1): 14 (1988).

Malawi. Nyika Plateau, 1903, *McClounie 157* (K).

Cyathula cylindrica Moq. ❖

Perennial straggling herb with opposite simple leaves; inflorescence distinctive, a congested cylindrical spike of creamy bristle-like bracts, the spikes becoming attached to animals' fur and humans' clothing. Scrambling in forests margins, montane scrub, and *Brachystegia* woodland; 1,150–2,300 m. Widespread in Africa from Cameroon and Sudan S. to South Africa (Cape).

Source. *Flora zambesiaca* 9(1): 82 (1988).

Malawi. Nyika Plateau, 2,180 m, 1975, *Pawek 9968* (K, MAL, MO, SRGH, UC).

ANACARDIACEAE

Lannea discolor (Sond.) Engl.

livelong; *Chichewa*: sidyatunga; *Yao*: chiumbu

Deciduous tree to 15 m tall, leaves alternate, imparipinnate, leaflets in 4–10 pairs, dark green above, whitish below; fruit a red to purple berry 9–15 x 7–10 mm, fleshy and edible; in open woodland of various types and on rocky hillsides. South Africa to D.R.C., Zambia, and Malawi. Bark used to cure diarrhoea, the poles used as a 'live fence'. Fruit edible and relished.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Lannea edulis (Sond.) Engl. ❖

Chichewa: ufulukula; *Yao*: mndyankamba

Suffrutex shrublet with annual stems arising from a large woody rootstock, leaves imparipinnate, leaflets in 1–3 pairs, hairy when young, glabrous later; fruit at ground level, in clusters, red, 9–11 x 6–7 mm, fleshy and edible; in open woodland, rocky hillsides, grassland, most evident after fires when it flowers. South Africa to Angola, D.R.C., and Uganda. A root extract is used to treat diarrhoea. Fruit is eaten.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Ozoroa insignis Delile subsp. **reticulata** (Baker f.) Gillett ❖

Much-branched evergreen tree to 15 m tall, leaves simple, alternate or in whorls of 3, variable in shape, hairy or not above, densely hairy below, veins prominently parallel; in various types of woodland, in savanna, rocky hillsides, and grassland. Three varieties of subsp. *reticulata* are recognized, but the identity of the Nyika material is unknown.

Source. *Flora zambesiaca* 2(2): 576 (1966).

Malawi. Nyika National Park, without locality or collecting details (Mill 1979); Nyika National Park, without locality or collecting details (Patel 1999).

Rhus anchietae Ficalho & Hiern ex Hiern

Dense shrub or small tree to 8 m tall; leaves 3-foliolate, leaflets rhombic to elliptic, discolorous, hairy or not, veins prominent below; in riverine forest, swamps and savannas. Malawi to Zambia, Angola, D.R.C., and Tanzania.

Source. *Flora zambesiaca* 2(2): 612 (1966)

Malawi. Nyika National Park, without precise locality, 1960, *Chapman 771* (COI, SRGH).

Rhus longipes Engl. var. **longipes** ❖

large-leaved rhus; *Chichewa*: kamwamadzi, mdima; *Yao*: mpilakuru, mtatu

Shrub or small tree to 8 m, or scandent, leaves 3-foliolate, leaflets elliptic or obovate, hairy when young, hairless with age, veins obscure above when young, but prominent below when older; in forests, thickets and woodlands. Zimbabwe to W. Africa and Kenya.

Source. Brummitt (1973).

Malawi. Nyika National Park, head of Mondwe Valley, 1972, *Brummitt & Synge 237* (K, MAL, SRGH, LISC); Mbuzinandi, 2000, *Mwanyambo 584* (MAL); Sangule Peak, 2000, *Izidine 95* (LMA).

Zambia. Nyika Plateau, on path to N. Rukuru Waterfall, 1958, *Robson 393A* (K, LISC).

Rhus ochracea Meikle var. **ochracea**

Rhus squalida sensu White (1962), non Meikle

Suffrutex or shrub to 2 m, from a large woody rootstock, leaves 3-foliolate, leaflets elliptic to obovate, leathery, sparsely to densely hairy on both sides, discolorous, yellowish green to russet below; fruit small, to 4 mm in diameter, round, shiny; in miombo woodland, in grasslands among rocks, on termite mounds. Zambia, Malawi, and Tanzania. This is the first record for the Nyika Plateau.

Malawi. Nyika National Park, Jalawe Viewpoint, 2000, *Thera 3084* (MAL).

Rhus pyroides Burch. var. **pyroides**

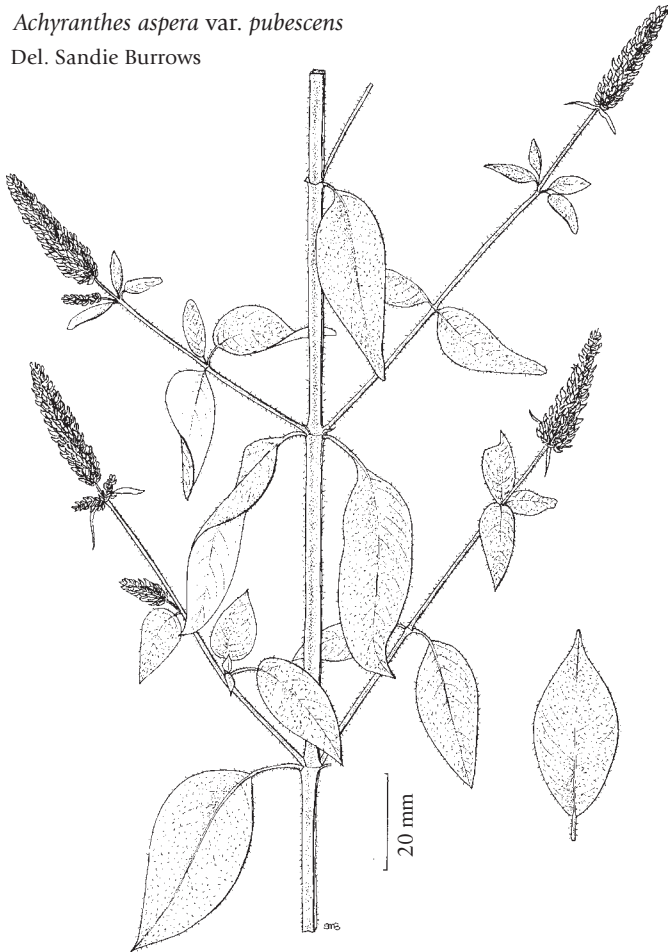
Rhus vulgaris Meikle

Shrub or tree to 9 m tall, leaves 3-foliolate, leaflets ovate to obovate, apex rounded or obtuse, base tapering, lateral and tertiary nerves sunken above, prominently raised below, dark green above, paler and silvery hairy below; fruit red or brownish red, round, ca 5 mm diameter; on termite mounds and rocky hills, along stream banks, and on forest margins. South Africa to Ethiopia.

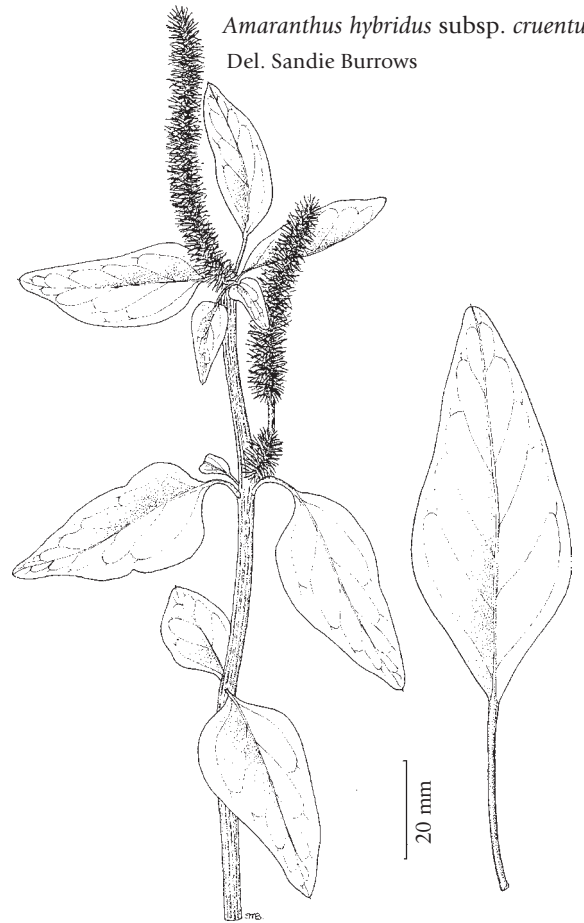
Source. *Flora zambesiaca* 2(2): 604 (1966); Moffett (1993: 43).

Malawi. Nyika Plateau, N. of Mpanda Summit, *Lewis 104* (FHO); North Rukuru Valley, 2000, *Winter 4121* (MAL).

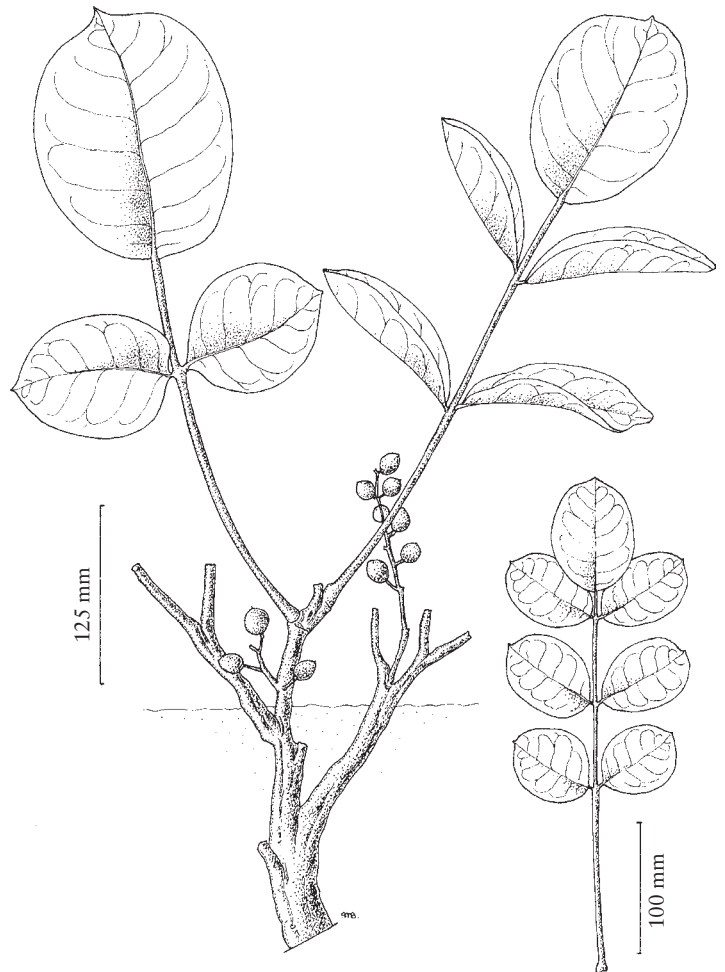
Achyranthes aspera var. *pubescens*
Del. Sandie Burrows



Amaranthus hybridus subsp. *cruentus*
Del. Sandie Burrows

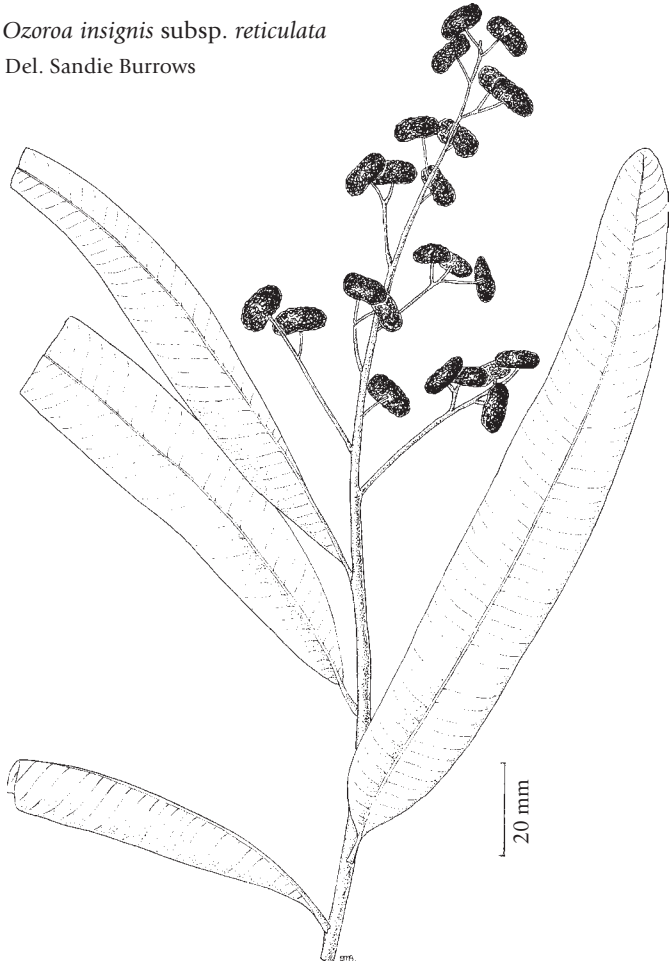


Cyathula cylindrica
Del. Sandie Burrows

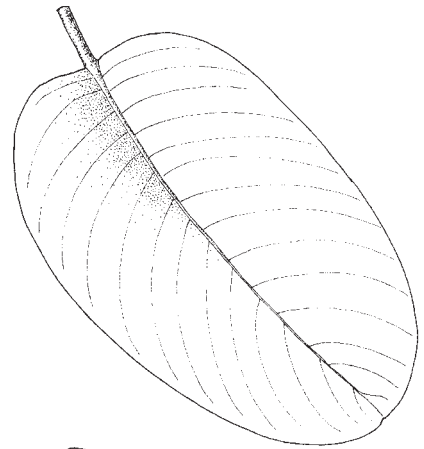
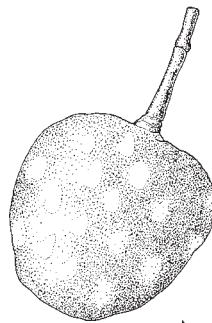
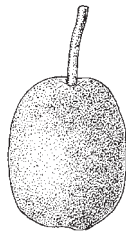
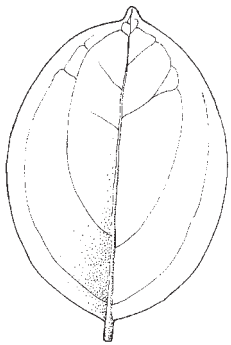
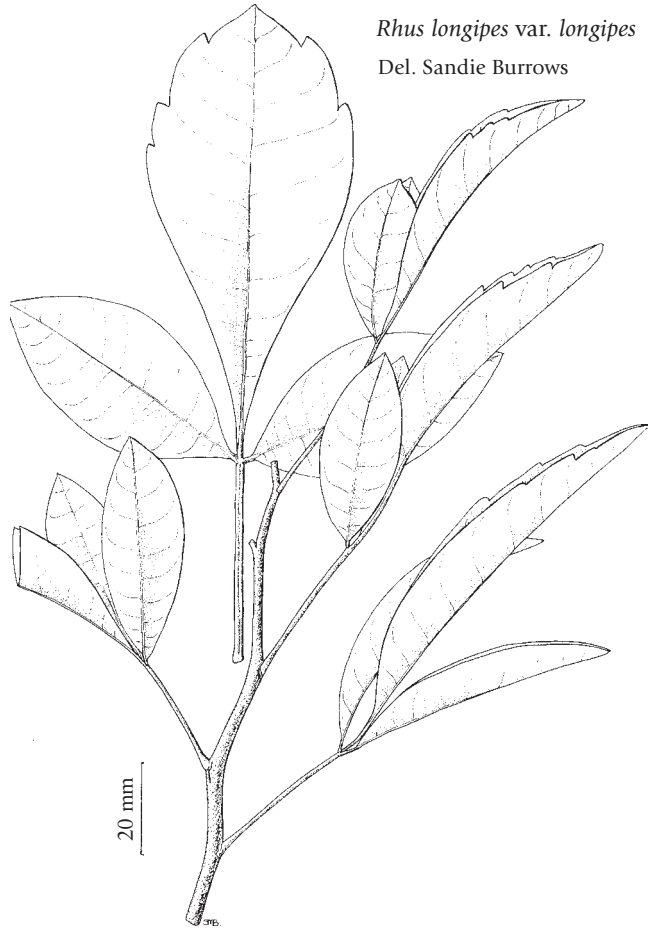


Lannea edulis
Del. Sandie Burrows

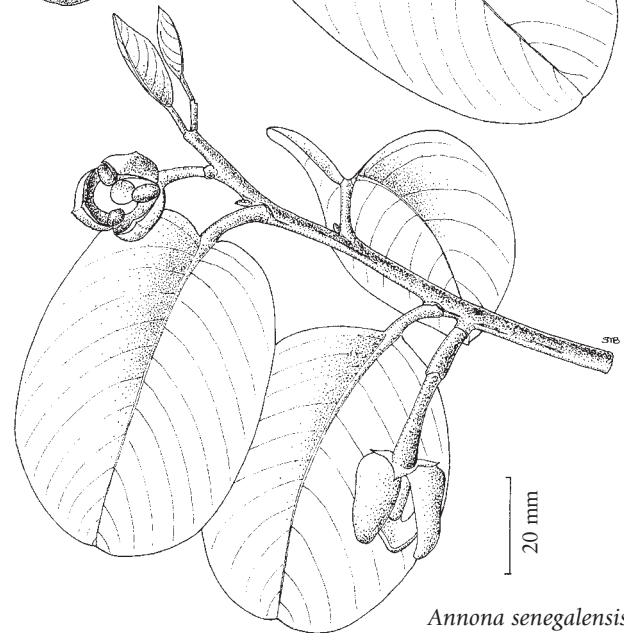
Ozoroa insignis subsp. *reticulata*
Del. Sandie Burrows



Rhus longipes var. *longipes*
Del. Sandie Burrows



Anisophyllea boehmii
Del. Sandie Burrows



Annona senegalensis
Del. Sandie Burrows

ANISOPHYLLACEAE

Anisophyllea boehmii Engl. ❖

Anisophyllea pomifera Engl. & Brehmer

Tumbuka: mangondo; *Tonga*: mfunjo; *Ngoni*: mahota

Small evergreen tree to 10 m, young branchlets crimson, leaves simple, ovate to broadly elliptic, leathery dark green, midrib yellowish; flowers small on long slender spikes; fruit a round to ellipsoid drupe, ca 35 x 20 mm,

plum-coloured, edible; in miombo woodland on sandy or rocky soils; 600–1,600 m. Malawi, Zambia, Tanzania, and D.R.C. Fruit much relished; the roots are used in Zambia as a snakebite remedy.

Source. *Flora zambesiaca* 4: 97 (1978); Lebrun & Stork (1991: 167).

Malawi. Nyika National Park, Thazima Gate, 2000, *Burrows & Maroyi* 6837 (MAL, PRE).

ANNONACEAE

Annona senegalensis Pers. ❖

wild custard-apple; *Chichewa*: mpoza, mneche, ulembe; *Tumbuka*:

mdopa, munyele, mulolo; *Yao*: chiuta, mponjela, mposa

Small, often spreading tree 1.5–8 m tall; leaves alternate, 60–185 x 30–115 mm, venation sunken above, prominent below; fruit single, 15–30 mm long, segmented, yellowish, edible; in various types of woodland or wooded grassland; 0–1,900 m. Widespread throughout tropical Africa.

Malawi. Nyika National Park, without locality or collector (Mill 1979).

Artabotrys monteiroae Oliv. ❖

red hook-berry; *Chichewa*: kana; *Yao*: mtandaumbiri, ntandandumbili

Shrub or liane 1.2–6 m tall, bearing small hooks on the branches; leaves alternate, oblong to ovate, 30–140 mm long, glossy, hairless above, finely hairy below; fruit in few-fruited clusters, small, red when ripe; in evergreen forest, riverine forest, woodland, and rocky outcrops; up to 2,200 m. South Africa to Uganda and D.R.C.

Malawi. Nyika National Park, Kasyaula and Zovochipolo Forests (Dowsett-Lemaire 1985: 319).

Zambia. Nyika Plateau, Manyenjere, Kasoma, and Chowo Forests (Dowsett-Lemaire 1985: 319).

Artabotrys stolzii Diels

Yao: chisakalawe

Large woody climber to 15 m tall, very similar to *A. monteiroae*; in mist forest and evergreen forest: 1,500–2,100 m. Confined to the Nyika in Malawi and S. Tanzania. Regarded as a synonym of *A. monteiroae* by White *et al.* (2001).

Source. *Flora zambesiaca* 1(1): 133 (1960).

Malawi. Nyika National Park, without precise locality, 1955, *Lees* 66 (K).

Friesodielsia obovata (Benth.) Verdc. ❖

Popowia obovata (Benth.) Engl. & Diels

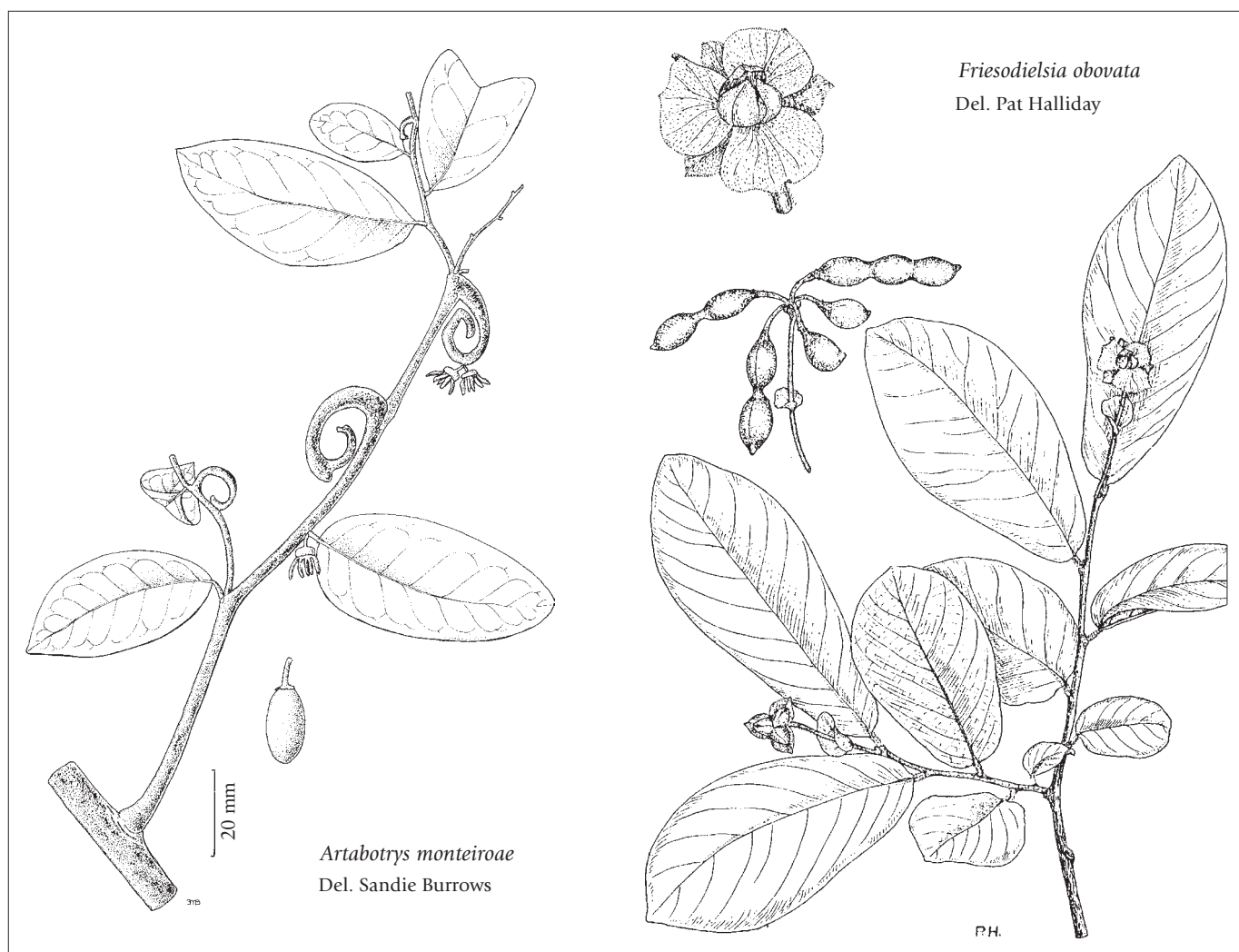
northern dwaba-berry; *Chichewa*: mchinga, kombe, mufulafula (fruits);

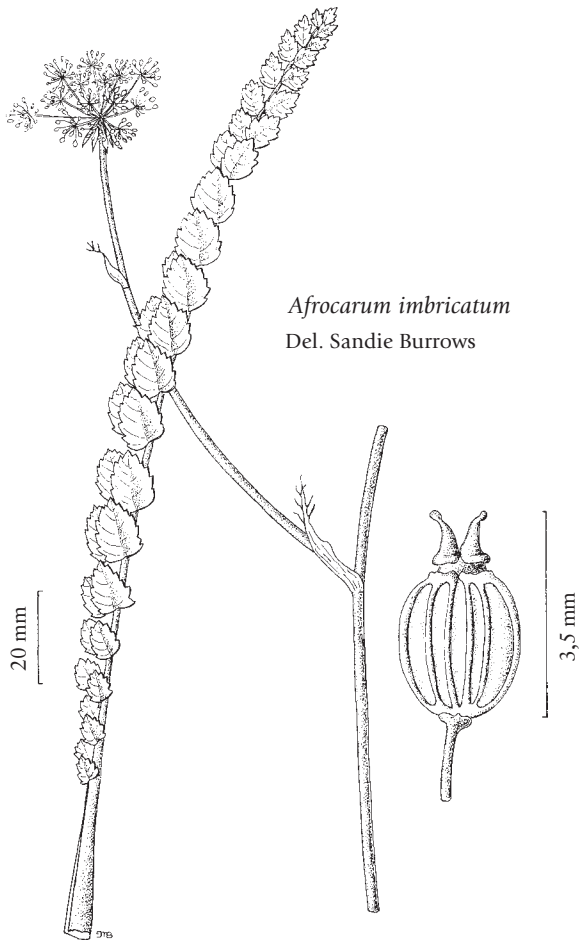
Yao: makatama, mkotamu

Shrub to small tree 1–5 m tall; leaves alternate, oblong-obovate, 60–140 x 35–95 mm, finely hairy or hairless, often glaucous below; fruit a cluster of 3–6 carpels, each 1- to 4-seeded, pinkish to orange-yellow; in open woodland, thickets, and along rivers, often on granitic soils. Mainly a species of the *Flora zambesiaca* region.

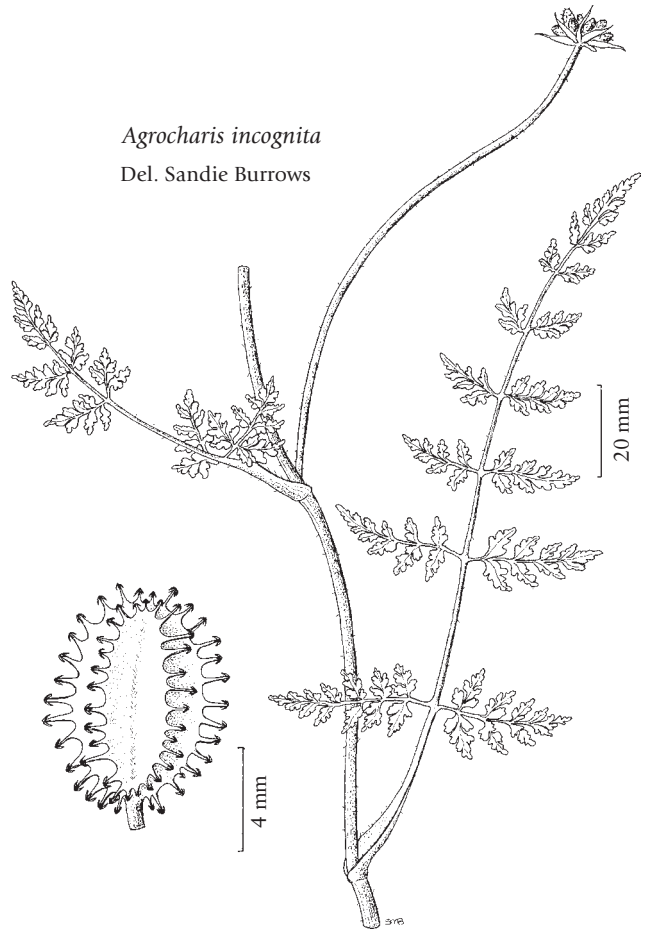
Source. *Flora zambesiaca* 1(1): 123 (1960).

Malawi. Nyika Plateau, Mwenembwe, 1903, *McClounie* 148 (K).

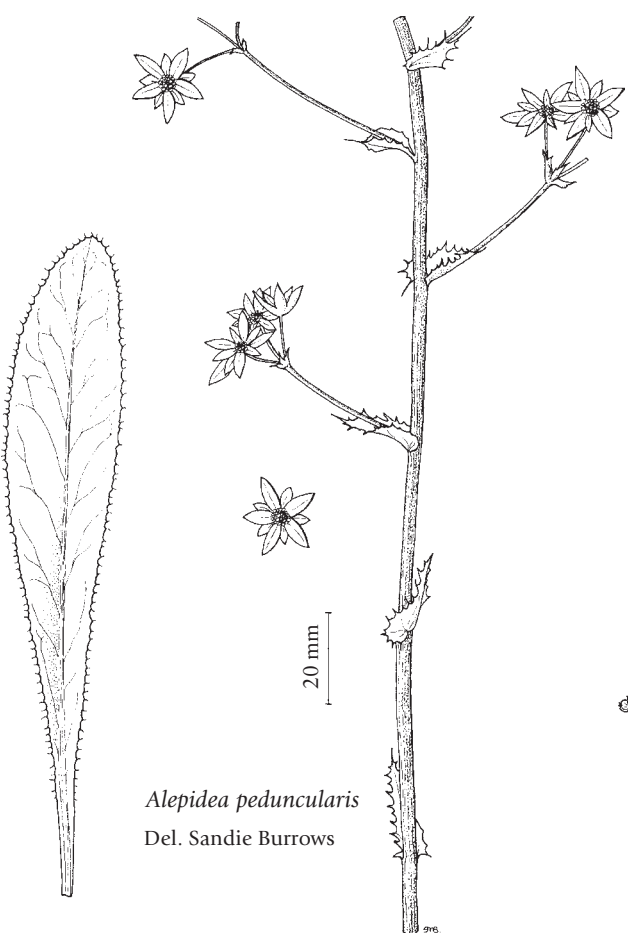




Afrocarum imbricatum
Del. Sandie Burrows



Agrocharis incognita
Del. Sandie Burrows



Alepidea peduncularis
Del. Sandie Burrows



Centella asiatica
Del. Sandie Burrows

Afrocarum imbricatum (Schinz) Rauschert ❖*Baumiella imbricata* (Schinz) H. Wolff.; *Carum imbricatum* Schinz

Herb to 1 m high; leaves glabrous, pinnate, leaflets in 16–32(40) pairs, overlapping, sharply toothed; bracts commonly trisect or pinnate above; flowers cream-coloured; in wetlands, grassland, and woodland. Zimbabwe to Angola, C.A.R., and Tanzania. A monotypic genus endemic to highlands of the central African plateau. African relatives include *Berula*, *Oenanthe*, and *Sium*.

Source. Brummitt (1973).

Malawi. Nyika Plateau, road to Chelinda, *Richards 10507* (K); W. foot of Nganda, 1972, *Brummitt, Munthali & Synge 37* (K, MAL, SRGH, EA); Dembo River, 2000, *Winter 4034* (MAL, SRGH, LMA, PRE, UZL).

Agrocharis incognita (Norman) Heyw. & Jury ❖*Caucalis incognita* Norman; *Torilis eminii* Engl.; *Torilis gracilis* Engl. forma *umbrosa* Engl.

Annual herbs (or short-lived perennial with a slender rootstock) set with bristly, tubercle-based hairs; leaves 2(–3)-pinnate, pinnae with broadly oblong-elliptic segments, more rarely (when tripinnate) the segments narrowly elliptic; umbels compound, involucre present beneath main umbel, petals greenish to white or creamy white; fruit with glochidiate spines, secondary ribs spinose, primary ribs pilose; in montane grassland, forest margins and clearings, or in deep shade in damp places, and as a weed of agriculture, 900–3,000 m. Tropical eastern Africa to Sudan, D.R.C., Malawi, E. Zimbabwe, and adjacent Mozambique. The relationship between *Agrocharis* and *Daucus* is being investigated.

Source. Patel (1999).

Malawi. Nyika National Park, margin of Zovochipolo Forest, 2000, *Winter 4131* (MAL).

Agrocharis melanantha Hochst.*Agrocharis pedunculata* (Baker f.) Heyw. & Jury; *Caucalis melanantha* (Hochst.) Hiern; *Caucalis longisepala* H. Wolff.; *Caucaliopsis stolzii* H. Wolff.; *Gymophye tansaniensis* Gilli

Perennial pyrophytic herb with a thickened rootstock, 100 mm tall, set with bristly, tubercle-based hairs; leaves 3- to 4-pinnate into linear to linear-oblong segments, often subverticillate in appearance; umbels compound, with distinct and often long rays; involucre present beneath main umbel, petals greenish to yellowish or blackish purple; fruit with glochidiate spines, secondary ribs spinose, primary ribs pilose; in moist, short, montane grassland subject to frequent burning. Widespread in eastern Africa.

Source. Brummitt (1973); Patel (1999).

Malawi. Nyika National Park, between Nganda and Muzengapakweru, 1972, *Synge 359* (K, MAL, SRGH, EA); road to Chelinda bridge, near Chosi Hill turnoff, 2000, *Winter 4052* (MAL, PRE); Nganda Hill crest, 2000, *Winter 4077* (MAL, SRGH, PRE).

Alepidea peduncularis A. Rich. ❖*Alepidea gracilis* Dümmer; *Alepidea longifolia* E. Mey. ex Dümmer; *Alepidea propinqua* Dümmer; *Alepidea swynnertonii* Dümmer

Slender to robust herb to 1.2 m tall with a basal rosette of leaves; basal leaf margins barely to conspicuously ciliate; flowers in a large panicle of condensed simple umbels, involucre prominent, white; in montane grassland and open miombo woodland. South Africa to Ethiopia. The huge variation in this aggregate species is not well understood and suspiciously simplified.

Source. Cannon (1978); Townsend (1989); Lebrun & Stork (1992).

Malawi. Nyika National Park, between Lake Kaulime and Zovochipolo Forest, 2000, *Winter 4002* (MAL, SRGH, PRE); Nganda Hill, near crest, 2000, *Winter 4080* (MAL, SRGH, PRE, UZL); 2 km upstream of Wovwe River Gorge, 2000, *Winter 4150* (MAL, PRE); Chisanga Falls footpath, 2000, *Burrows & Burrows 6752* (MAL, PRE).

Zambia. Nyika Plateau, N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, *Winter 4019* (UZL, PRE).

Centella asiatica (L.) Urb. ❖*Centella bupleurifolia* (A. Rich.) Adamson; *Centella coriacea* Nannf.

Low creeping perennial herb, stems rooting at nodes; leaves reniform; margins regularly crenate all round; umbels simple, axillary, petals greenish to purplish red; fruit strongly laterally compressed; often in moist places, grassland along rivers, among rocks, forest clearings. Pantropical, extending into some subtropical regions.

Malawi. Nyika National Park, without locality or collecting (Patel 1999).

***Cyclosporum leptophyllum** (Pers.) Sprague ❖*Apium leptophyllum* (Pers.) Benth.

Weak, glabrous annual herb; leaves tripinnate into filiform segments; petals minute, white; fruit almost round, laterally compressed, 1.25–1.75 mm long, with strongly protuberant, broad, pale primary ribs; a weed of cultivated and disturbed ground, sometimes in damp places, occasionally even in very shallow water. Probably Central American in origin, now widespread as a weed in the tropical regions of the world.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Diplolophium buchananii (Benth. ex Oliv.) Norman ❖*Physotrichia buchananii* Benth. ex Oliv.

A very robust perennial herb 1–2 m high, often glaucous, sometimes subshrubby; leaf sheaths well-developed, leaf segments elliptic to subrotund; involucre and involucre very conspicuous, petals greenish white to creamy yellow; fruit strongly dorsally compressed, densely bristly pubescent; in moist places in rocky montane grassland and in *Brachystegia* woodland. Malawi and N. Mozambique.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Frommia ceratophylloides H. Wolff ❖

Perennial herb to 1 m tall; basal leaves forming a rosette above a scaly or fibrous collar formed by the decaying sheaths of previous years' leaves; leaves pinnate, long and slender with each pinna very finely divided into very thin segments; flowers in much-branched inflorescences, petals yellow; fruit ovoid, 2–3 mm long, smooth and black, similar to that of *Pimpinella*; in thin soils associated with rock outcrops in grassland. A monotypic genus endemic to N.E. Zambia, N. Malawi, and S.W. Tanzania.

Source. Mill (1979).

Malawi. Nyika Plateau, *Robinson 4499* (K, SRGH); Chelinda Bridge rock outcrop, 2000, *Winter 4054* (MAL, SRGH, PRE).

Zambia. Malawi border, *Richards 14398* (K); ca 3 km N. of Zambian Rest House, 2000, *Koekemoer s.n. sub Winter 4017* (MAL, SRGH, PRE, UZL).

Heracleum abyssinicum (Boiss.) Norman ❖*Malabaila kirungae* Engl.; *Malabaila abyssinica* Boiss.; *Malabaila rivae* Engl.

Perennial or biennial herb to 1 m tall, stems solid, terete or ridged, often purplish at base, from woody or somewhat fleshy rootstock; leaves simply pinnate, to 300 x 70 mm; leaflets ovate, coarsely dentate; flowers white, in a compound umbel; fruits dorsally compressed and winged; along streamsides in grassland, 2,000–2,400 m. Widespread in eastern Africa from Ethiopia to Malawi.

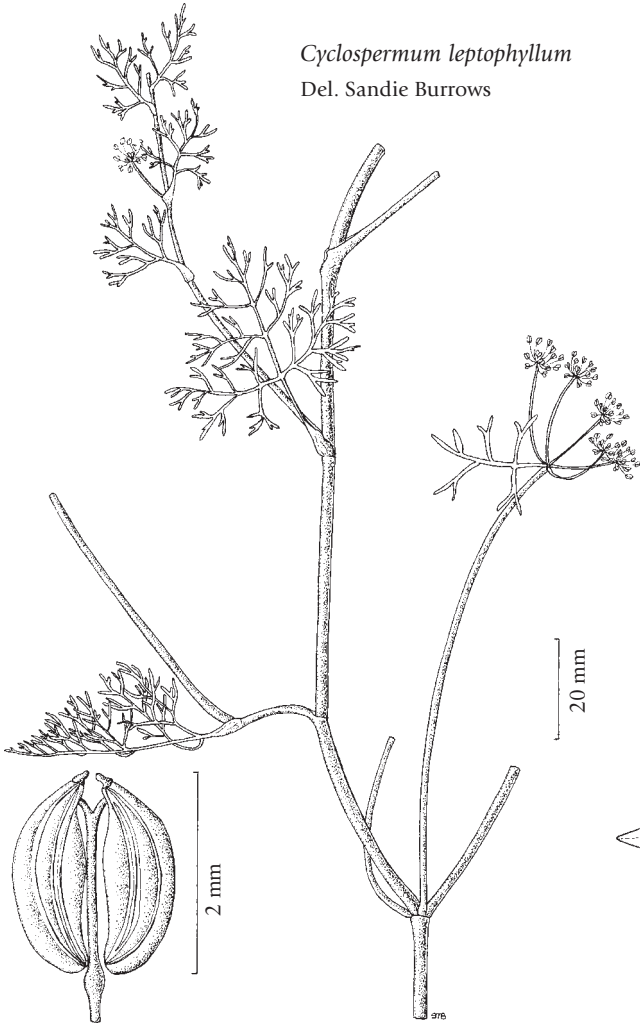
Source. Mill (1979).

Malawi. Nyika National Park, Chelinda Bridge, wetland below forest, 2000, *Winter 4056* (MAL).

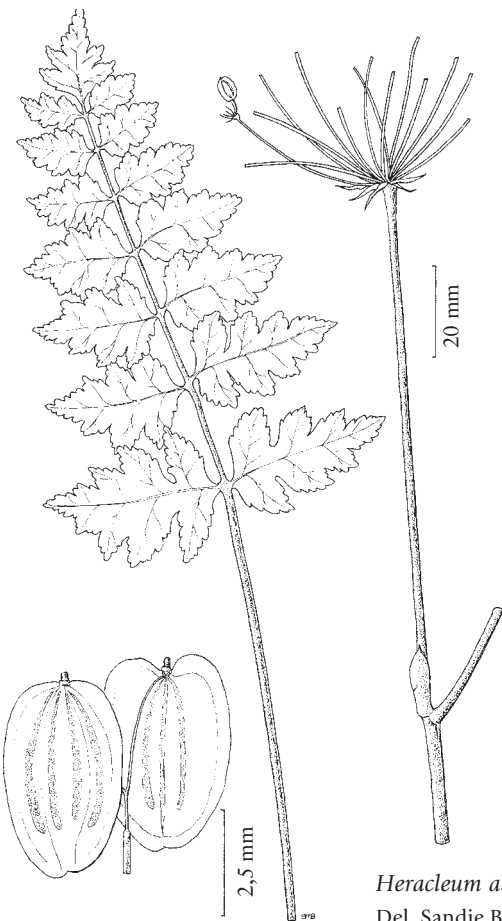
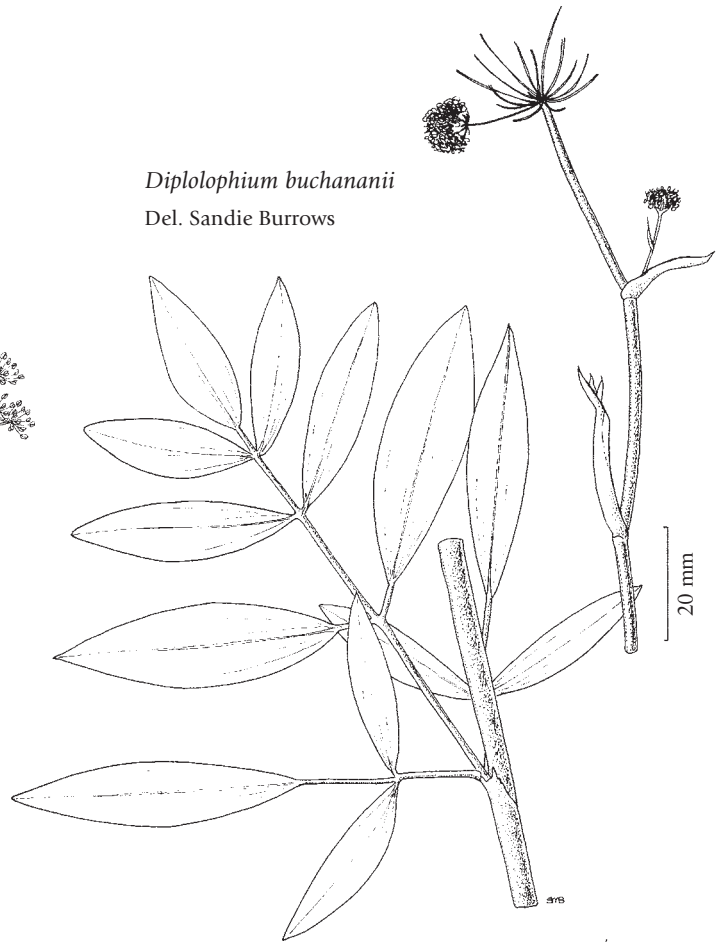
Heteromorpha arborescens (Spreng.) Cham. & Schldtl. var. **abyssinica** (A. Rich.) H. Wolff ❖*Heteromorpha abyssinica* Hochst. ex A. Rich.; *Heteromorpha trifoliata* (Wendl.) Eckl. & Zeyh.*Chichewa:* kapoloni, khozyo thengo

Small tree 4(–12) m tall, bark peeling (birch-like) in transverse bands to expose smooth, bronze underbark between consecutive persistent encircling leaf scars; leaves shortly and softly pilose usually only on midrib above; umbel rays ca 25 mm long, flowers greenish yellow; fruit halves hetero-

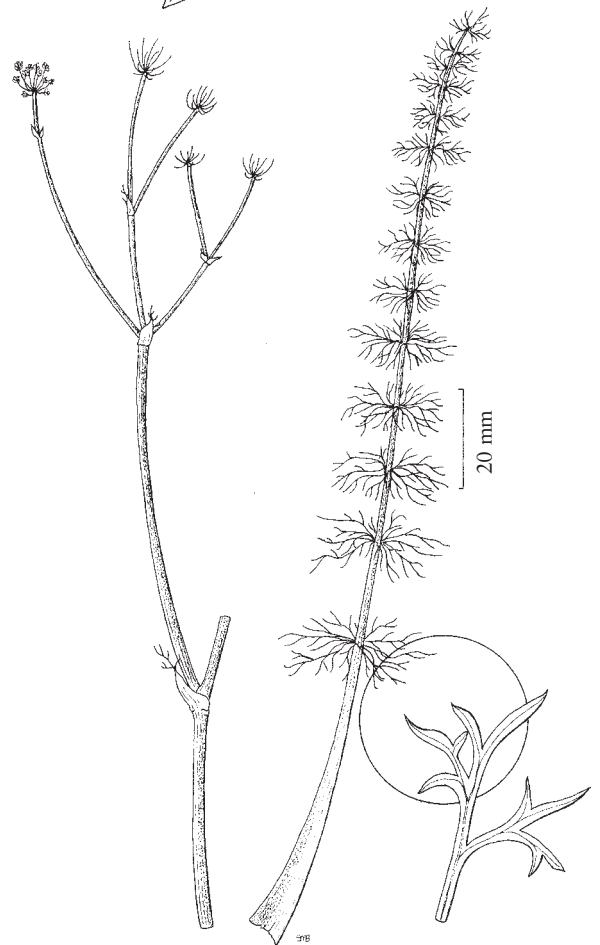
Cyclospermum leptophyllum
Del. Sandie Burrows



Diplophium buchananii
Del. Sandie Burrows



Heraclium abyssinicum
Del. Sandie Burrows



Frommia ceratophylloides
Del. Sandie Burrows

morphic, one with four ribs (two conspicuous) and the other with five (three conspicuous); in montane and riverine woodland, forest margins, and in secondary growth. South Africa (Cape) to Ethiopia and Yemen; also in Angola.

Source. Brummitt (1973); Winter & Van Wyk (1996).

Malawi. Nyika Plateau, without locality, 1946, *Brass 17342* (BM, K, PRE, SRGH); 3 km W. of Muzengapakweru, 1972, *Synge 379* (K); W. of Vithintha Hill, 2000, *Salubeni & Mwanyambo 6750* (MAL); Jalawe Viewpoint, 2000, *Thera 3081* (MAL); Juniper Forest, 2000, *Burrows & Burrows 6924* (MAL, PRE, UNIN).

Zambia. Nyika Plateau, Chowo Forest, *Phillips 1720* (MO); ca 3 km N. of Zambian Rest House, 2000, *Winter 4016* (PRE, UZL).

Heteromorpha involucrata Conrath

Suffrutex or woody shrub to 1.8 m tall; leaves short-petiolate and trifoliate, with broad-based hairs predominantly on nerves below; terminal umbel often much larger than later umbels, rays up to 100 mm; petals cream-coloured to greenish yellow; in montane grassland, also open miombo or *Protea* woodland, particularly toward the plateau margins, 1,800–2,600 m. S. Tanzania to northern South Africa.

Malawi. Nyika National Park, near Thazima Gate, 2000, *Burrows sub Winter 4051* (MAL, SRGH, PRE, UZL); Vithintha Hill slope, 2000, *Salubeni & Mwanyambo 6811* (MAL); Lake Kaulime, 2000, *Willis & Luhanga 106* (MAL).

Zambia. Nyika Plateau, N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, *Winter 4018* (MAL, SRGH, PRE, UZL, LMA, UNIN, DSM).

Heteromorpha kassneri H. Wolff

Suffrutex or woody shrub similar to *H. involucrata*, to 1.8 m tall; leaves subsessile with pinnatifid or decurrent pinnae; in open miombo woodland, 1,400–1,800 m. D.R.C., Zambia, and Malawi.

Malawi. Mpora, 2 miles E. of Nyika, *Phillips 1295* (MO); 10 km S. of Thazima Gate, 2000, *Winter 4242* (MAL, UZL).

Hydrocotyle mannii Hook.f. ❖

Low creeping perennial herb, stems rooting at nodes; leaves reniform or almost round with 5–9 rounded to acute denticulate lobes, pilose on both surfaces; umbels simple, axillary, rounded capitate, petals greenish to white; fruit strongly laterally compressed; among grass in wet to somewhat damp situations at edges of lakes, swamps, and marshes, as well as disturbed places. Widespread in tropical Africa. *H. sibthorpioides* Lam. is expected to occur here, and the two species may have been confused previously.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Lefebvrea abyssinica A. Rich. ❖

Lefebvrea stuhlmannii Engl.; *Peucedanum lefebvria* Drude

Slender virgate perennial herb to 3 m tall, characteristically overtopping surrounding vegetation; stems frequently bowed over with the weight of the fruiting umbels; leaves mostly confined to near base of stem, 2-pinnate (ternate-pinnate) with linear leaflets, leaflets with two veins parallel to the midvein; flowers pale yellowish cream, on long, thin, drooping pedicels; fruit strongly dorsally compressed as in *Peucedanum*, but deeply incised at apex with rounded, curved auricles overtopping the elongated, narrowly conical stylopodium; in montane grassland and open savanna woodland; 1,000–2,300 m. Zimbabwe to tropical eastern Africa, D.R.C., and Angola.

Source. Mill (1979).

Malawi. Nyika National Park, Wovwe River Valley, 2000, *Willis 168* (MAL).

Zambia. Nyika National Park, N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, *Winter 4020* (MAL).

Lefebvrea grantii (Hiern) Droop

Lefebvrea microcarpa H. Wolff; *Lefebvrea angolensis* Welw. ex Ficalho;

Lefebvrea welwitschii Engl.; *Peucedanum buechananii* Baker

Robust biennial (? sometimes perennial) herb, glabrous, 0.6–2(3) m tall; leaflets with two veins parallel to the midvein in narrow-leaved forms, but these veins not noticeably parallel in broader-leaved forms; petals greenish yellow or cream; fruit strongly dorsally compressed as in *Peucedanum*, but deeply incised at apex with rounded, curved auricles overtopping the

stylopodium; stylopodium not or only slightly longer than wide; fruits up to 12 mm long. Widespread in tropical Africa. It may be worth considering *Lefebvrea microcarpa* as a subspecies of *L. grantii*. It is identical in all respects, but with smaller fruit up to 8 mm long, leaflets very narrowly ovate to linear and a diffuse inflorescence, and seems to occupy a drier and warmer habitat at lower altitudes (1,250–1,750 m) in Zambia, Malawi, and southern Tanzania.

Source. Cannon (1978); Patel (1999).

Malawi. Nyika Plateau, 1896, *Whyte s.n.* (B, holo.†; BM, photo).

Peucedanum articulatum C.C. Towns. ❖

Perennial herb 0.5–0.65 m tall; leaves with hollow petioles and pronounced sheaths, ultimate leaf divisions filiform to narrowly linear; flowers white; fruit dorsally compressed with lateral wings, stylopodium exceeding the wings; in moist grassland, presumably temporarily waterlogged. Endemic to the Nyika Plateau.

Source. Townsend (1987).

Malawi. Nyika National Park, Chosi Hill, 2000, *Winter 3988* (MAL, SRGH, PRE, UZL, LMA); 2000, *Kasakula 199* (MAL, LMA, SRGH); 8 km E. of Chelinda on Kasaramba Road, 2,303 m, *Pawek 11203* (K, holo.); UC, MO, SRGH, MAL, PRE, iso.); above Chelinda Bridge, 2,409 m, *Droop 308* (K, RNG).

Zambia. Nyika Plateau, Chowo Rock, ca 2,195 m, *Droop 314* (K, RNG).

Peucedanum claessensii Norman

Erect coarse perennial herb 1–3.5 m tall, stem terete, hollow, to 18 mm wide at the base; leaves large, up to 0.45–1 m x 0.3–0.75 m; leaves divided into broad segments, 23–90 x 17–80 mm, margins scabrid with short hairs; flowers white or creamy, suffused with a green centre; fruit with 2 vittae on the commissural face; in montane grassland, forest margins, and other scrub associations, 1,070–2,300 m. S. Tanzania, D.R.C., E. Zambia, E. Zimbabwe, Malawi, and Mozambique.

Source. Cannon (1978); Patel (1999).

Zambia. Nyika Plateau, *Richards 10402* (K, SRGH); N. of Zambian Rest House, ca 1 km E. of Sonkwe stream, 2000, *Winter 4021* (MAL, PRE).

Peucedanum eylesii Norman

Erect perennial herb with stout, gnarled, woody rootstock, 0.9–2 m tall, stems pithy, angular, and sulcate-striate; lower leaves 190–700 x 80–180 mm, lower leaf segments broadly linear to narrowly oblong, upper leaves with the leaflets (especially the terminal) long and narrow, regularly sharply serrate, somewhat scabrid on midrib below, margins glabrous; flowering petals yellow to yellow-green; fruit dorsally compressed with lateral wings, obovate, shallowly truncate or notched at the base, the 2(–3) vittae on the commissural face superficial, stylopodium exceeding wings; in damp or seasonally flooded grassland or scrub near streams, 1,500–1,700 m. S. and W. Tanzania, Zambia, Zimbabwe, Malawi, and Mozambique. Can be confused with *P. nyassicum*, as well as *Lefebvrea longipedicellata*.

Source. Mill (1979).

Malawi. Nyika National Park, Thazima Gate, 2000, *Burrows sub Winter 4050* (MAL, UZL, PRE); ca 2 km N.W. of Lake Kaulime, 2000, *Winter 4128* (MAL).

Zambia. Nyika Rest House, *Richards 10402* (K).

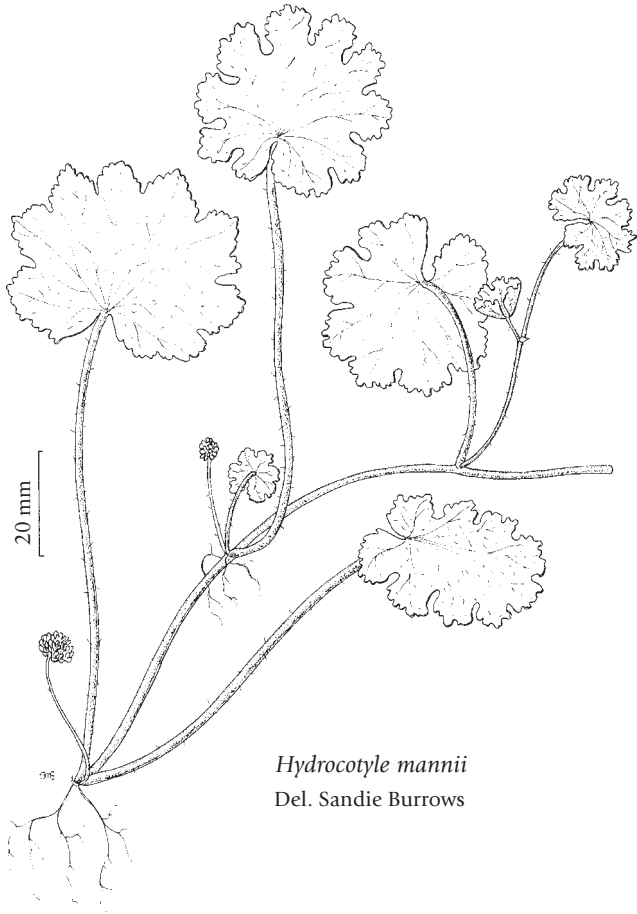
Peucedanum linderi Norman

Peucedanum aberdaricum Chiov.

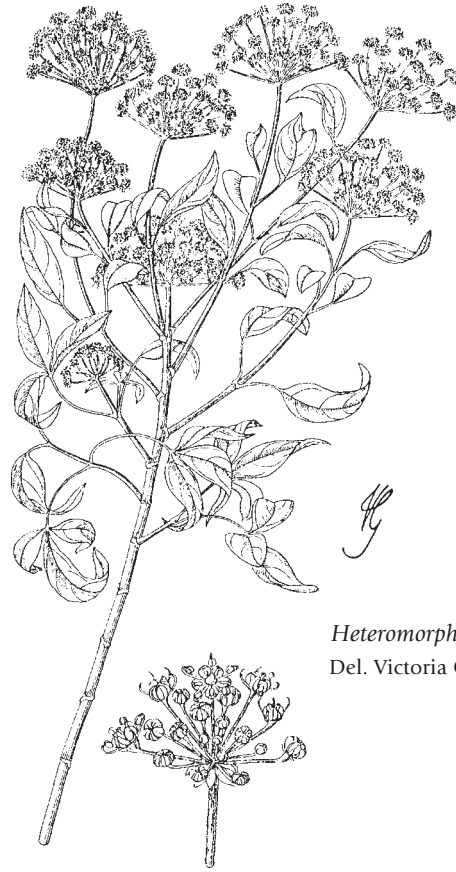
Erect perennial herb similar to *P. eylesii*, 0.9–3 m tall, stem fistular, angular, and sulcate-striate; 8–19 mm wide at base; leaves divided into broad segments, 12–50 x 7–25 mm, leaflet margins serrate, glabrous; flowers white or creamy with a narrow greenish or brownish central streak along the single vitta; fruit broadly elliptical to round, deeply incised at the base, the 2 vittae on the commissural face somewhat concealed by overlying tissue; in montane forest margins or clearings, tall grassland, scrub, along streams, and in boggy places, 1,860–3,422 m. Mountains of tropical eastern Africa, Rwanda, D.R.C., Malawi, Mozambique, and E. Zimbabwe.

Source. Cannon (1978); Mill (1979).

Malawi. Nyika National Park, 5 km S. of Chelinda, *De Kruif 1325* (PRE); Mpopoti Hill, 2000, *Salubeni & Mwanyambo 6788* (MAL); Mwanda, between road and ridge, 2000, *Winter 4178* (MAL).



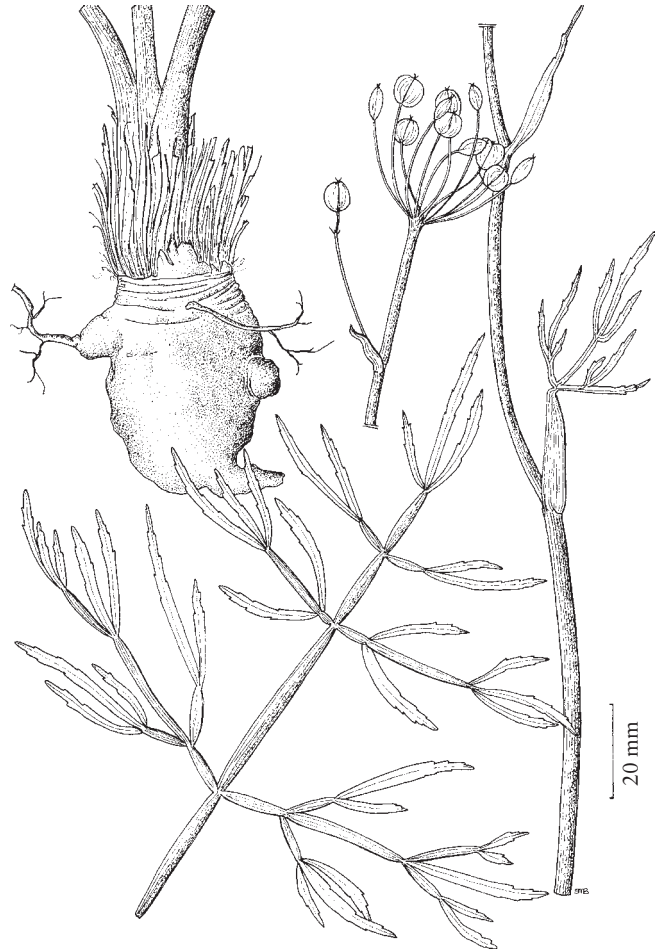
Hydrocotyle mannii
Del. Sandie Burrows



Heteromorpha arborescens
Del. Victoria Goaman



Lefebvrea abyssinica
Del. Sandie Burrows



Peucedanum articulatum
Del. Sandie Burrows

Peucedanum sp. nov., aff. **P. harmsianum** H. Wolff

Glabrous, perennial herb 0.3–0.7 m tall, from rhizomatous rootstock; leaves less than five-jugate, segments 1–4(6) mm wide; flowering petals yellow, at least when dry, anthers yellow; fruit elliptic or slightly obovate, ca 7–9 x 3–5 mm, solitary vittae in valliculae, and two vittae on commissure distinguish this from *P. harmsianum*; in wetlands along streams in montane grassland, ca 2,300 m. Known only from the Nyika Plateau.

Malawi. Nyika National Park, Dembo Bridge area, 2000, *Winter 4049* (MAL, SRGH, PRE, UZL); Chelinda Stream, 7,500', *Pawek 7829* (UC, SRGH, PRE), wetland along stream, *Pawek 10295* (UC, SRGH, PRE, K, MO, MAL).

Physotrichia heracleoides H. Wolff ❖

Perennial with a tough taproot, ca 0.3–0.9 m tall; lobes of lower leaves not separated into pinnae or, if so, then the pinnae not decurrent along the leaf-rachis; involucre and involucrel very conspicuous, petals creamy-or greenish yellow, calyx teeth well-defined, ovary and young fruit not visibly ribbed, terete; fruit strongly dorsally compressed, with vesicular papillae; in rough, rather dry grassland, 1,500–2,100 m. From Burundi, S.W. Tanzania, and southern D.R.C. to Zambia and the Nyika Plateau.

Source. Mill (1979).

Malawi. Nyika National Park, ca 3 km N.W. of Lake Kaulime, 2000, *Winter 4123* (MAL); upstream of Wovwe Gorge, 2000, *Winter 4149* (MAL).

Physotrichia muriculata (Hiern) Droop & C.C. Towns.

Peucedanum heracleoides Baker [Type: Nyika Plateau, *Whyte 224* (K)].

Perennial herb 0.5–1.5 m tall, with a woody or fleshy taproot, stems ribbed or grooved, muriculate; leaves pinnatisect, with the pinnae broadly decurrent along the leaf-rachis, roughly hairy, to 250 x 180 mm; umbels compound, to 100 mm across; involucre and involucrel very conspicuous, flowers yellowish, sometimes flushed purplish, calyx teeth well-defined; ovary and young fruit deeply sulcate and ribbed; fruit strongly dorsally compressed, with a papillate-muriculate surface; in montane grassland or wooded grassland up to 2,100 m. From Angola, through northern Zambia and southern D.R.C., to the Nyika Plateau and S. and W. Tanzania.

Source. Cannon (1978).

Malawi. Nyika Plateau, below Rest House, *Boughey 1630* (K, SRGH); Domwe Viewpoint, 2000, *Salubeni & Mwanyambo 6799* (MAL); Mbuzinandi, 2000, *Salubeni & Mwanyambo 6816* (MAL); Chisanga Falls footpath, 2000, *Winter 4012* (MAL, PRE, SRGH, UZL, LMA).

Pimpinella buchananii H. Wolff subsp. **buchananii** var. **buchananii**

Pimpinella stolzii H. Wolff; *Pimpinella buchananii* var. *triradiata* Norman; *Pimpinella zernyi* Gilli

Slender to robust biennial to perennial herb, 0.35–1.5 m high; leaves variably pinnate, only rarely simple or trilobed; inflorescence much branched and rebranched, umbel rays (2)4–8(12); involucre and involucrel absent, rarely a single bract present, petals white to creamy, univittate, stylopodia long-conical; in rocky grassland, miombo woodland. Angola, D.R.C., Zambia, Tanzania, Malawi, and Mozambique. The altitudinal limit of 1,880 m, reported in *F.T.E.A.* is extended to over 2,300 m by Nyika gatherings. At these altitudes, plants are restricted to rocky habitats, and resemble *P. mulanjensis* C.C. Towns., except for the lack of trivittate petals. An extremely variable species with an immense range in habit and leaf morphology, even within individual populations. Some of these collections appear to have an annual habit, but vary in the presence or absence of a tuberous taproot.

Source. Mill (1979).

Malawi. Nyika National Park, Chosi Hill, W. of summit, 2000, *Winter 3990* (MAL, SRGH, PRE, UZL); Fingira Rock, 2000, *Willis & Luhanga 246* (MAL); Mwanda, E. of ridge base, 2000, *Winter 4177* (MAL, SRGH, PRE, LMA).

Pimpinella caffra (Eckl. & Zeyh.) D. Dietr. subsp. **conopodioides** C.C. Towns.

Pimpinella stadensis sensu Cannon, non (Eckl. & Zeyh.) D. Dietr., pro parte, excl. *Pimpinella nyassica* Norman

Biennial or perhaps perennial herb, 0.22–0.85 m tall from a short and oblong to tapering, firm, tuber-like root; basal leaves deeply palmately divided into narrow segments which are pinnate or toothed; stem leaves sim-

ply pinnate or bipinnate with very narrow segments not exceeding 2 mm wide and generally less; inflorescence simple or with few branches; umbels of 4–12(15) rays; petals white; fruit glabrous; stylopodial disk broad, concave, the stylopodia scarcely projecting; on mountain slopes and summits in grassland, among rocks, and on rocky outcrops and walls of gullies, 2,310–2,760 m. Endemic to Nyika Plateau and S.W. Tanzania.

Source. Patel (1999).

Malawi. Nyika National Park, Nganda Hill, W.N.W. slope, 2,500 m, 2000, *Winter 4065* (MAL, PRE); S. side of beacon, 2,600 m, 2000, *Winter 4072* (MAL, SRGH, PRE, LMA).

Pimpinella duridentata C.C. Towns.

Pyrophytic herbaceous perennial 0.4–0.65 m tall, with fibrous remains of petioles at base of stem; leaves coriaceous, simply pinnate with 2–4 pairs of sessile, very narrowly ovate pinnae, with firm cartilaginous-tipped teeth, lower lateral pinnae of at least the stem leaves deflexed; inflorescence moderately branched, umbel rays and pedicels glabrous, petals yellow; in grassland and damp, swampy ground, 2,250–2,600(2,800) m. Endemic to Tanzania (Southern Highlands) and the Nyika Plateau. Cannon's (1978) note that '*Pawek 2081* (UC) compares fairly well' with the type of *P. favifolia* Norman from Lake Mweru seems to have been missed by Townsend (1985, 1989), and this may yet prove to be the correct name for this species, in which case its range will extend to D.R.C.

Source. Townsend (1985, 1989).

Malawi. Nyika National Park, Chosi Hill, 2000, *Winter 3992* (MAL, SRGH, PRE, UZL, LMA, DSM); Nganda Peak, *Pawek 2081* (K, holo.).

Pimpinella huillensis Engl.

Pimpinella welwitschii Engl.; *Pimpinella mechowii* (Engl.) H. Wolff; *Pimpinella platyphylla* Hiern; *Pimpinella gossweileri* H. Wolff; *Pimpinella robusta* Norman; *Pimpinella kassneri* (H. Wolff) Cannon

Slender to robust biennial or perennial herb, 0.6–2 m tall; basal leaves coriaceous, simple (entire) or at most ternate; inflorescence much-branched; bracts (from first flowering branch and upward) with reduced lamina shorter than firm sheath; flowers white to creamy, pedicels glabrous or with a few scattered hairs, involucrel absent; fruit with dense silky, bristly or vesicular hairs, not much longer than broad; in *Brachystegia-Uapaca* woodland and in shallow boggy soil overlying laterite by streams, up to 1,500 m. Angola, Zambia, Zimbabwe, Malawi, S. and W. Tanzania, and N. Mozambique.

Source. Cannon (1978); Patel (1999).

Malawi. Nyika National Park, Nchenachena, *Pawek 3370* (UC).

Pimpinella ledermannii H. Wolff subsp. **engleriana** (H. Wolff) C.C. Towns. ❖

Pimpinella engleriana H. Wolff; *Pimpinella tomentosa* sensu Engl., non C.B. Clarke; *Pimpinella africana* Hiroe

Biennial or short-lived perennial herb, (0.2)0.5–1.8 m tall; basal leaves coriaceous, entire or at most ternate; inflorescence simple or with few branches, bracts (from first flowering branch and upward) with reduced lamina shorter than firm sheath, flowers white, pedicels with dense, short, spreading hairs, involucrel frequently present; fruit densely hairy, conspicuously longer than broad; in open or wooded (*Brachystegia, Uapaca, Protea*) grassland of plateaux and hill slopes, (810)1,400–1,900(2,400) m. Burundi, D.R.C. (Shaba Province), N. Zambia, S. and W. Tanzania, N. and C. Malawi, and N. Mozambique.

Source. Brummitt (1973).

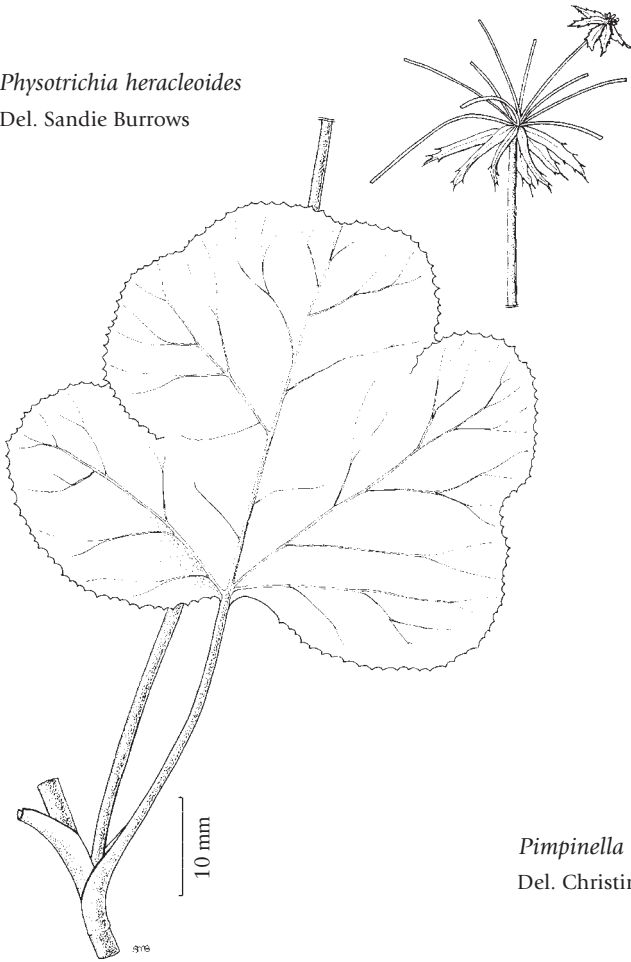
Malawi. Nyika National Park, N.W. foot of Nganda, 1972, *Synge 379* (K, MAL, SRGH); 8 km N.W. of Lake Kaulime, camp near North Rukuru River, 2,020 m, *Brummitt 10822* (PRE, K).

Pimpinella nyassica Norman

Pimpinella stadensis sensu Cannon, non (Eckl. & Zeyh.) D. Dietr., pro parte

Slender herb 0.2–0.8 m tall, rhizome with thick side roots; leaves long-petiolate, lowermost leaf may be undivided, orbicular and deeply dentate, leaflets with long petiolules; inflorescence simple or with few branches; 2–3 umbels, rays many, petals creamy white; in wetlands along streams in grassland. This species is apparently endemic to wetlands on the Nyika Plateau. Its relationship needs to be clarified with plants from Zimbabwe

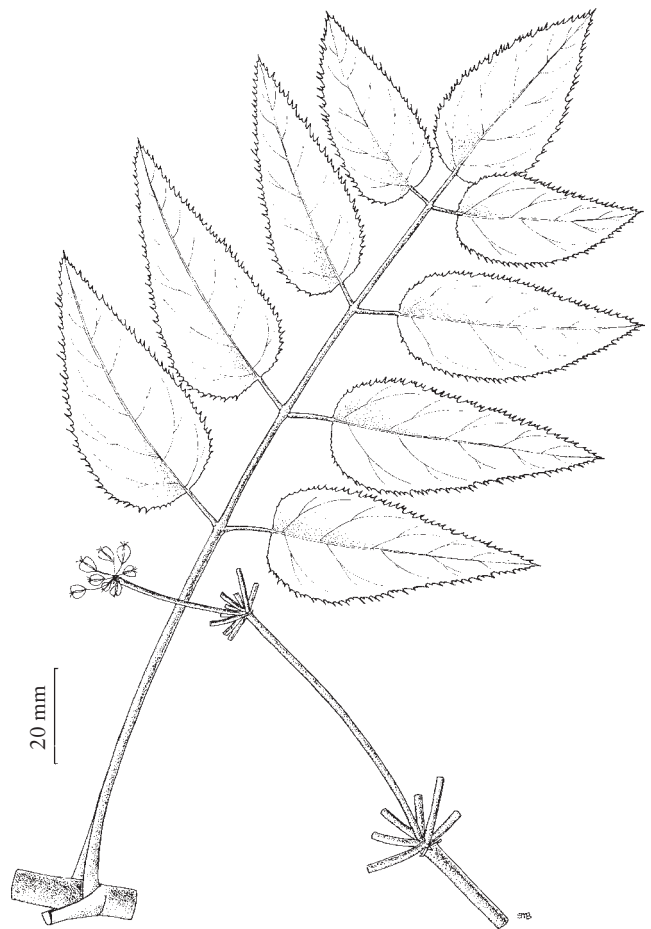
Physotrichia heracleoides
Del. Sandie Burrows



Pimpinella ledermannii
Del. Christine Grey-Wilson



Sanicula elata
Del. Sandie Burrows



Steganotaenia araliacea
Del. Sandie Burrows

to South Africa in the *P. caffra/stadensis* complex that occur in wetland habitats, for example, *P. hydrophila* H. Wolff, particularly concerning the rhizomatous habit and long petiolules.

Source. Cannon (1978).

Malawi. Nyika Mountains, 1932, *Sanderson 58* (BM, holo.); Nyika National Park, wetland at Zovochipolo forest margin, 2000, *Winter 4136* (MAL); tributary E. of Dembo Bridge, 2000, *Winter 4041* (MAL, PRE, SRGH).

***Sanicula elata* D. Don ❖**

Sanicula europaea L. var. *elata* (D. Don) Boiss.; *Sanicula europaea* L. var. *partita* (Kuntze) Hiroe

Stoloniferous herb up to 0.8 m; leaves long-stalked, rosetted, palmate, 40–80 mm wide, leaf segments 3–7, margin serrate with a tooth arista or mucro 1 mm long; umbels apparently simple; fruit 3–4 mm long, covered with hooked bristles; in evergreen forest. Widespread in Old World tropics and subtropics.

Source. Brummitt (1973).

Malawi. Nyika National Park, 8 km E. of Nganda, 1972, *Brummitt, Munthali & Synge 130* (K, MAL, SRGH); Nyika Road, km 56.3, *Chapman 181* (BM).

Zambia. Nyika Plateau, upper slopes of Kangampande (Chowo Rocks), *White 2760* (K).

***Steganotaenia araliacea* Hochst. ❖**

Peucedanum fraxinifolium Oliv.

Chichewa: mporoni; *Tumbuka:* mnyongoloka

Tree to 5 m tall, leafless when in flower; leaves imparipinnate with short, semi-amplexicaul basal sheath, margin serrate, tooth arista up to 3 mm long, apex acute to acuminate; umbels spherical, petals yellow; fruit strongly dorsally compressed, obovate, 8–15 × 5–8 mm; in drier woodland types. Widespread in the savannas of tropical Africa.

Source. Brummitt (1973).

Malawi. Nyika National Park, Sawi Valley, 1972, *Synge 442* (K, MAL).

***Torilis arvensis* (Huds.) Link ❖**

Erect annual herb to 1 m; leaves pinnately divided, hairy; involucre absent beneath main compound umbel, flowers white, petals setose-hairy; fruit with glochidiate spines, both secondary and primary ribs of fruit pilose; at high altitudes from the Cape (South Africa) to Europe and Asia; an introduced weed elsewhere in the world.

Source. Cannon (1978).

Malawi. Nyika Plateau, 1896, *Whyte 158* (K).

Excluded species

****Daucus carota* L.**

Daucus abyssinicus auctt. Hochst. ex A. Rich., non C. A. Mey.

carrot

Unlikely, unless as an escape from cultivation in a disturbed situation. May have been confused with *Agrocharis incognita*.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

***Peucedanum nyassicum* H. Wolff**

The relationship of this sp. to *P. eylesii* is not clear, but Townsend (1989) considered this entity to be more or less confined to Mt. Mulanje, and quite different in its shorter habit (0.3–1.2 m) and leaf dissection.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Species that are still expected, but have apparently not yet been collected on the Nyika Plateau

***Heteromorpha arborescens* (Spreng.) Cham. & Schltdl. var. *montana* P. J. D. Winter**

The type locality of this variety is from Viphya (Vernal Pool Dome); also collected at Chikangawa (Viphya) and therefore probably also occurs on the Nyika although no specimens thus determined have been found there to date. Expected on the eastern slopes, in steep, open, precipitous habitats.

Source. Winter & Van Wyk (1996).

***Lefebvrea longipedicellata* Engl.**

Peucedanum longipedicellatum (Engl.) Drude; *Lefebvrea brevipes*

H. Wolff; *Lefebvrea naegeleana* H. Wolff

Distributed from tropical E. Africa to D.R.C., Zambia, Angola, southern Malawi, and N. Mozambique. The gap in the known distribution range seems to reflect missing data or misidentification of Nyika specimens rather than a true disjunction, as the Nyika National Park includes habitats which seem suitable for occupation by this species, and it is recorded from as close as Chisenga (Misuku Hills). It seems as if there may be difficulty distinguishing it from *Peucedanum eylesii* when mature fruit is not available, as both have more or less triplinerved pinnae. The number and length of pedicels may prove useful to distinguish them. Only a thorough comparison of specimens of both taxa can confirm this. If these species can be recognised in the vegetative state, this needs to be reflected in the literature, at least in the form of a diagnosis.

APOCYNACEAE (including Asclepiadaceae and Periplocaceae)

***Acokanthera laevigata* Kupicha ❖**

Shrub or tree to 12 m tall, all parts with milky sap, leaves leathery, flowers in axillary clusters, white; in mid-stratum of montane forest; in *Juniperus* forest, on Nkhonjera Hill, and at Mbuzinandi. N. Malawi and Tanzania.

Source. *Flora zambesiaca* 7(2): 406 (1985); White *et al.* (2001).

Malawi. Nyika National Park, in the Juniper Forest, 2,160 m, 1976, *Pawek 11818* (K).

***Ancylobotrys petersiana* (Klotzsch) Pierre ❖**

Landolphia petersiana (Klotzsch) Dyer

Scandent shrub or woody climber with a milky latex; leaves opposite, 40–110 mm long; flowers white or cream-white, corolla tube 6–14 mm long, lobes 11–24 mm long; on rocky hillsides in mixed woodland at low altitudes. South Africa to Tanzania and Kenya; also on Madagascar. Probably not a constituent of the Plateau flora.

Malawi. Nyika National Park, Kasewerera, 2001, without collecting details (Patel & Overton 2002).

***Asclepias amabilis* N. E. Br.**

Gomphocarpus amabilis (N. E. Br.) Bullock

Slender erect single-stemmed tuberous herb with white latex; flowers in few-flowered umbels; in damp peaty soil in montane grassland; 2,250 m. Malawi, Zambia, and Tanzania.

Malawi. Nyika Plateau, Lake Kaulime, 2,250 m, 1959, *Richards 10459* (K).

***Asclepias pygmaea* N. E. Br.**

Trachycalymma cucullatum sensu Bullock, in part

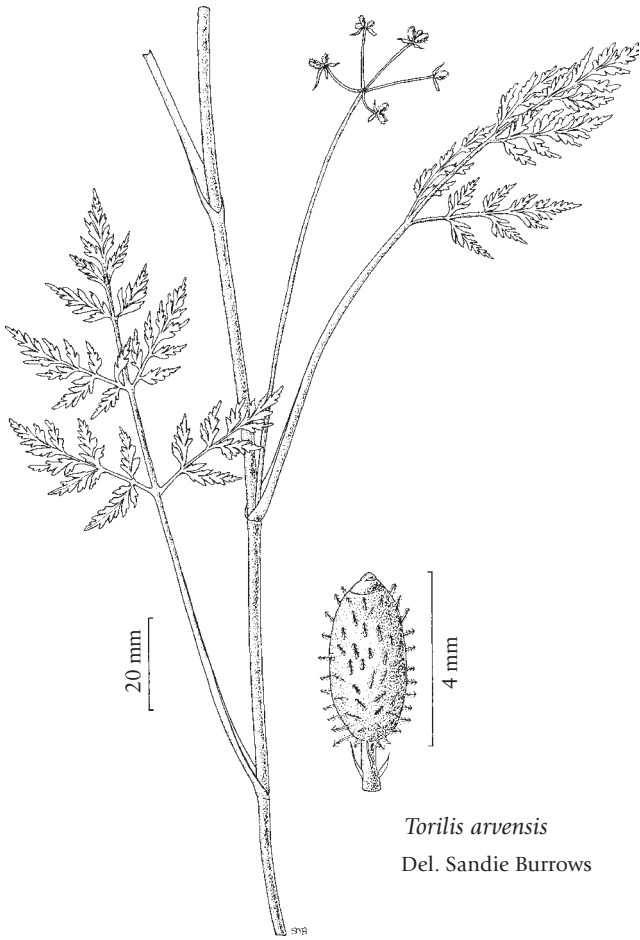
Slender erect tuberous herb with white latex, leaves linear; flowers in white or purplish umbels; in burnt montane grassland; 2,200–2,500 m. Malawi and S. Tanzania.

Source. Goyder (2001).

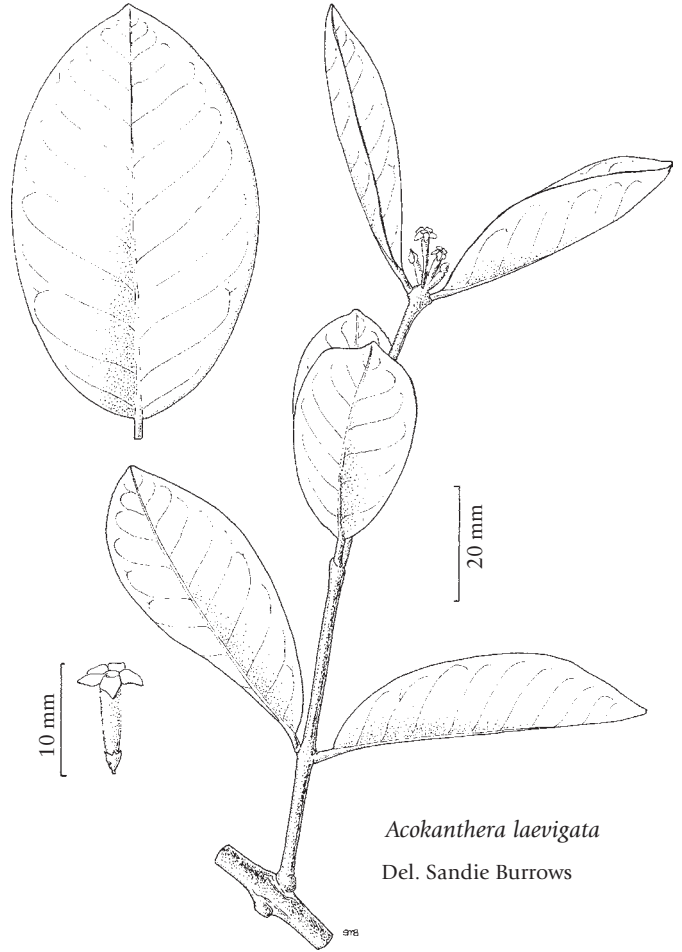
Malawi. Nyika Plateau, Chelinda CDC Camp, 2,200 m, 1958, *Robson & Angus 424* (K).

***Asclepias randii* S. Moore ❖**

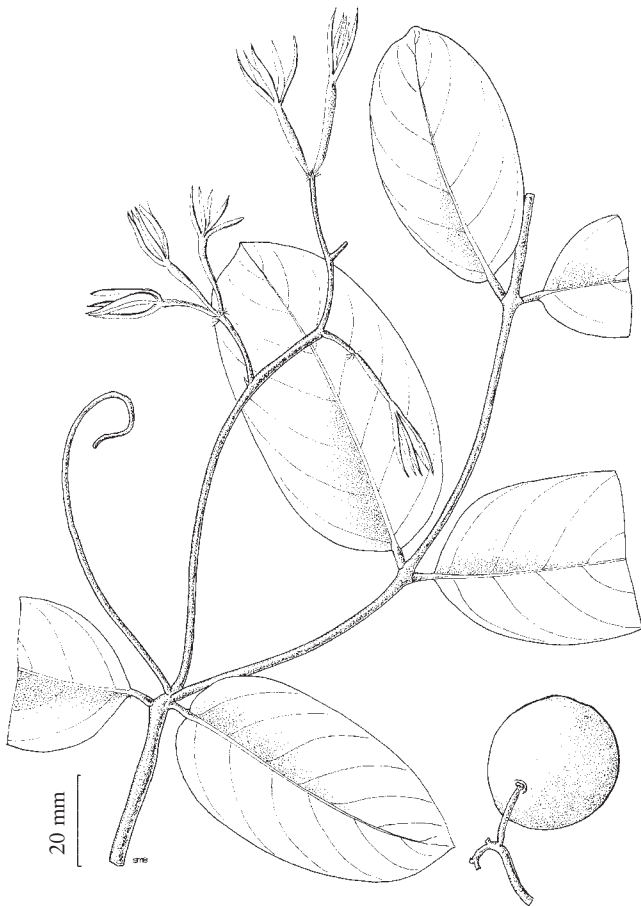
Ascending or erect tuberous herb with white latex, linear leaves and erect



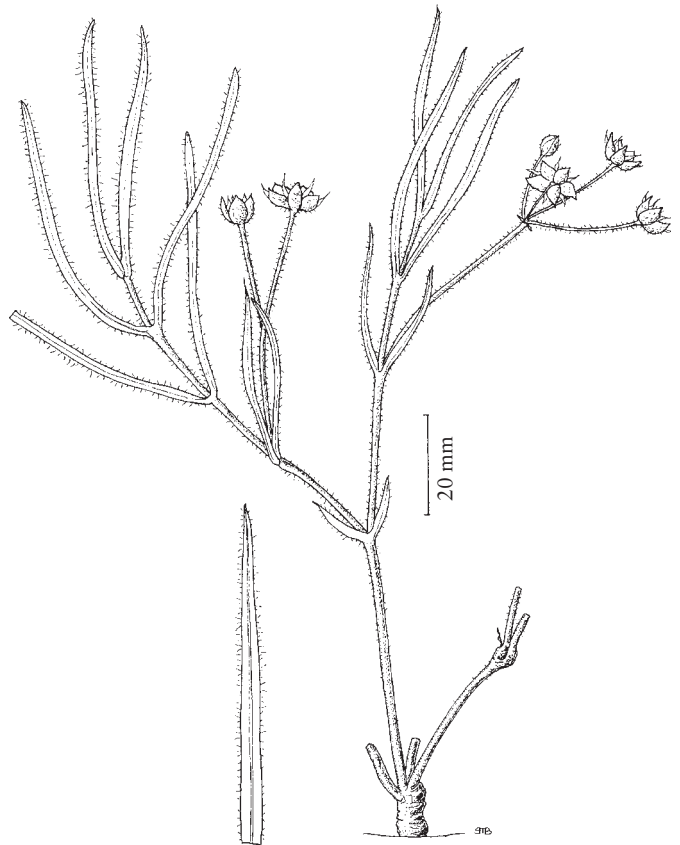
Torilis arvensis
Del. Sandie Burrows



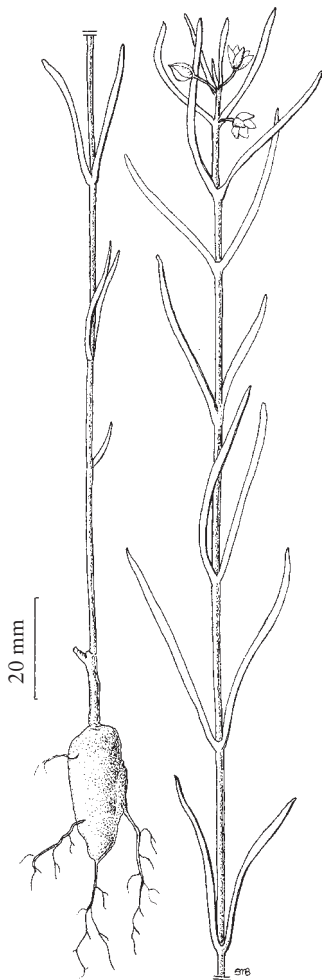
Acokanthera laevigata
Del. Sandie Burrows



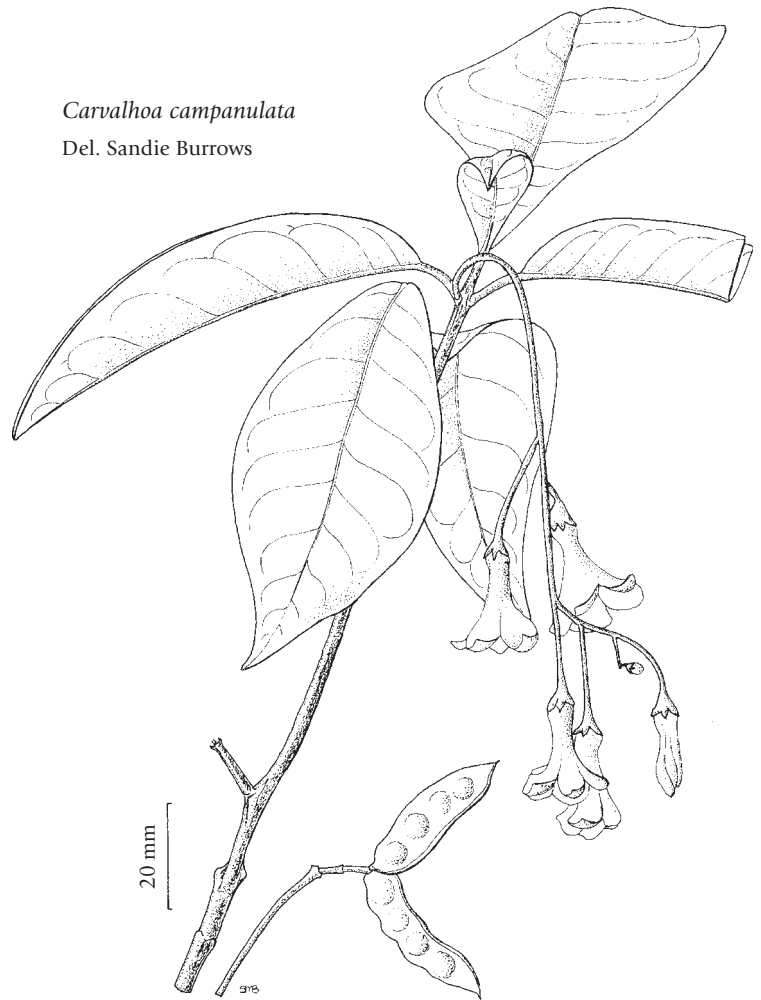
Ancylobotrys petersiana
Del. Sandie Burrows



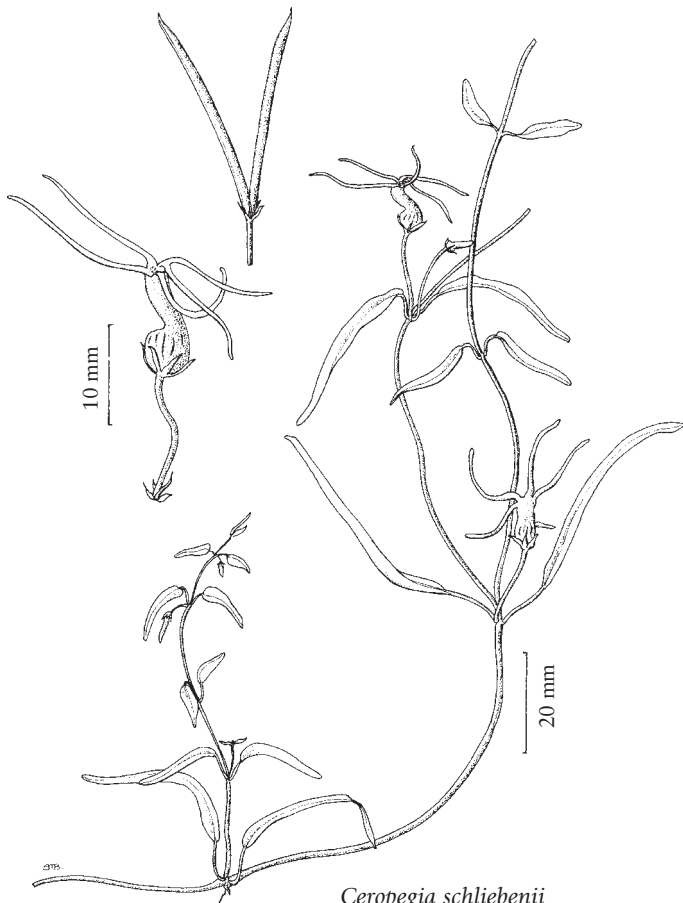
Asclepias randii
Del. Sandie Burrows



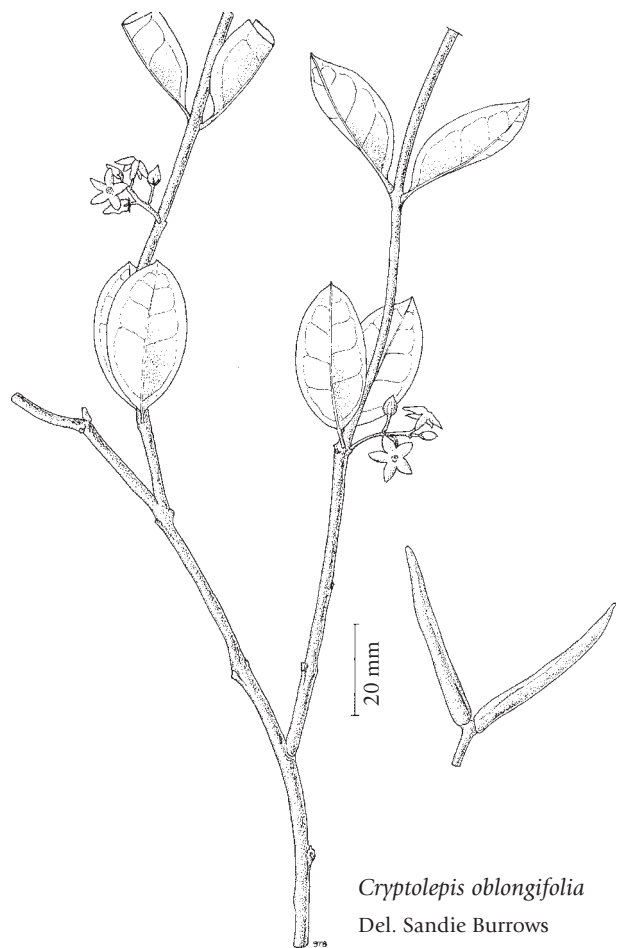
Aspidoglossum breve
Del. Sandie Burrows



Carvalhoa campanulata
Del. Sandie Burrows



Ceropegia schliebenii
Del. Sandie Burrows



Cryptolepis oblongifolia
Del. Sandie Burrows

stellate flowers; in burnt montane grassland; 2,200–2,500 m. Also in Angola, Zambia, Zimbabwe, Mozambique, and southern Tanzania.

Malawi. Nyika Plateau, top of ridge off road to Chelinda, 7,500', 1967, Richards 22553 (K).

Asclepias sp. [= *Richards* 57 (K)]

Ascending or erect tuberous herb with white latex, oblong leaves and erect stellate flowers; in burnt montane grassland; 200–2,250 m. Also found in southern Tanzania and the Mbala region of northern Zambia.

Malawi. Nyika Plateau, near Chelinda CDC Camp, 2,200 m, 1958, *Robson & Angus* 373 (K).

Asclepias sp. [= *Richards* 6689 (K)]

Ascending or erect tuberous herb with white latex, linear-lanceolate leaves and dull green or pinkish flowers; in burnt montane grassland; 2,200–2,500 m. Also in S. Tanzania on the Mbeya, Kitulo, and Poroto mountains.

Malawi. Nyika Plateau, 30 km along road to Kasaramba Viewpoint, 1966, *Pawek* 745 (MAL).

Aspidoglossum angustissimum (K.Schum.) Bullock

Aspidoglossum whytei (N.E.Br.) Bullock; *Schizoglossum angustissimum* K.Schum.; *Schizoglossum elatum* K.Schum.; ?*Schizoglossum ledermannii* Schltr.; *Schizoglossum whytei* N.E.Br.; ?*Schizoglossum zernyi* Markgr.

Slender erect single-stemmed tuberous herb to 1.5 m with white latex, clusters of brownish pubescent flowers; in montane grassland with *Protea*; 2,000 m. Widespread in central and eastern parts of tropical Africa.

Source. Patel (1999); synonymy from Kupicha (1994).

Malawi. Nyika Plateau, N.E. of Nganda, *Patel, Ludlow & David* 5116 (K, MAL).

Aspidoglossum breve Kupicha ❖

Slender erect single-stemmed tuberous herb to 300 mm tall with white latex and clusters of brownish flowers; in montane grassland; 2,000–2,600 m. Restricted to the Nyika Plateau of northern Malawi and the Kitulo Plateau in southern Tanzania.

Source. Kupicha (1994).

Malawi. Nyika Plateau, Nganda Peak, 1992, *Goyder, Paton & Tawakali* 3557 (BR, K, MAL, PRE).

Carvalhoa campanulata K.Schum. ❖

Carvalhoa macrophylla K.Schum.

Shrub or small tree to 5 m tall, leaves opposite, thin, with milky latex; flowers in loose heads on a long stalk from leaf axils, cream to pale yellow with red streaks in throat; fruit of paired dehiscent carpels; in understory of evergreen forest, 800–1,900 m. Mozambique, Malawi, Tanzania, and Kenya.

Malawi. Nyika National Park, without locality or collecting details (*Patel* 1999).

Ceropegia claviloba Werderm.

Slender twiner to 1.5 m from a globose tuber, latex clear, flowers tubular with lobes united at tip, small, white with black markings; in evergreen forest; 1,700–2,300 m. Tanzania, Zambia, Zimbabwe, and Malawi.

Malawi. Nyika Plateau, Chisanga Forest on N. Rukuru River, *Brummitt, Polhill & Banda* 16189 (K, MAL).

Ceropegia filipendula K.Schum.

Ceropegia medoensis N.E.Br.; *Ceropegia dichroantha* K.Schum.

Erect single-stemmed herb with clear latex and fleshy roots, flower tubular with lobes united at tip, large, yellow-green or brown; in *Brachystegia* woodland; 900–1,500 m. Also in Tanzania, Mozambique, Zambia, Zimbabwe, and Angola.

Malawi. Nyika Plateau N.E. of Nganda, *Patel, Ludlow, Scott & Creegan* 5087 (K, MAL).

Ceropegia schliebenii Markgr. ❖

Slender vine with clear latex, tuberous root, flowers purplish with a deep tube and spidery lobes; shallow soil over rock slabs; 2,000–2,250 m. Southern Tanzania and northern Malawi.

Malawi. Nyika Plateau, Chelinda Bridge, *Brummitt, Polhill & Banda* 16148

(K, MAL); 6.2 km from Lake Kaulime on Zungwara Road, 2000, *Burrows & Burrows* 6880 (Buffselskloof Herbarium).

Ceropegia sp. [= *Goyder, Paton & Tawakali* 3579]

Slender erect herb with clear latex and a globose tuber, flower with narrow cylindrical tube and united lobes, yellowish with red streaks; in shallow soil over rock slabs; 1,750 m. Known only from the Nyika.

Malawi. Nyika Plateau, escarpment below Jalawe Viewpoint, 1992, *Goyder, Paton & Tawakali* 3579 (K, MAL).

Cryptolepis oblongifolia (Meisn.) Schltr. ❖

Ectadiopsis nigritana Benth.; *Ectadiopsis oblongifolia* (Meisn.) Schltr.;

Ectadiopsis wehwitschii Baill.; *Secamone acutifolia* Sond.

Erect subshrub with white latex, reddish stems and tubular white flowers; in *Brachystegia* woodland; 1,500–2,000 m. Widespread in eastern and southern Africa from Sudan to South Africa and Namibia.

Malawi. Nyika National Park, escarpment below Jalawe Viewpoint, 1992, *Goyder, Paton & Tawakali* 3577 (BR, K, MAL, PRE).

Cynanchum praecox Schltr. ex S.Moore

Cynanchum pygmaeum Schltr.

Plant leafless at time of flowering, just an umbel of brownish yellow flowers at soil level, latex white; in burnt montane grassland; 2,000–2,300 m. Distribution scattered irregularly over W. and E. tropical Africa.

Source. Liede (1996); *Brummitt* (1973).

Malawi. Nyika National Park, Nganda, 1972, *Synge* 370 (K, MAL).

Cynanchum rungweense Bullock ❖

Vine climbing to 12 m with white latex, leaves heart-shaped, glaucous below with red veins; on forest fringes; 2,000–2,400 m. Northern Malawi, Zambia, and southern Tanzania.

Source. White *et al.* (2001)

Malawi. Nyika Plateau, central plateau, *Dowsett-Lemaire* 236 (K).

Zambia. Nyika Plateau S. of Zambian Rest House, 1989, *Goyder, Pope & Radcliffe-Smith* 3269 (K, MAL, NDO).

Glossostelma carsonii (N.E.Br.) Bullock ❖

Asclepias carsonii (N.E.Br.) Schltr.; *Gomphocarpus chlorojodina*

K.Schum.; *Schizoglossum carsonii* (N.E.Br.) N.E.Br.; *Schizoglossum*

chlorojodinum (K.Schum.) N.E.Br.; *Schizoglossum kassneri* S.Moore;

Xysmalobium carsonii N.E.Br.

Erect single-stemmed tuberous herb with white latex, linear fleshy leaves and large, yellow-green flowers frequently marked with purple; in montane grassland and *Brachystegia* woodland; 1,700–2,250 m. From Rwanda to Angola and Mozambique.

Source. *Goyder* (1995); *Mill* (1979).

Malawi. Nyika Plateau, 5 km S.W. of Rest House, 2,150 m, 1958, *Robson & Angus* 206B (K).

Zambia. Nyika Plateau, 2 km S.W. of Chowo Forest, 1992, *Goyder, Paton & Tawakali* 3538 (K, NDO).

Glossostelma nyikense Goyder

Low single-stemmed tuberous herb with white latex, linear fleshy leaves and small, yellow flowers; burnt montane grassland; 2,100–2,250 m. Endemic to the Nyika Plateau—known from just 6 collections.

Source. *Goyder* (1995).

Malawi. Nyika Plateau, near Chelinda CDC Camp, 2,200 m, 1958, *Robson & Angus* 452 (K, LISC, PRE, SRGH).

Zambia. Nyika Plateau, *Williamson* 1009 (SRGH).

Gomphocarpus praticola (S.Moore) Goyder & Nicholas

Asclepias friesii Schltr.; *Asclepias katangensis* S.Moore; *Asclepias moorei*

De Wild.; *Asclepias praticola* S.Moore

Stout herb with 1–3 stems, with white latex, fleshy glaucous leaves and large, green and purple flowers; in *Brachystegia* or *Uapaca* woodland; 1,700–2,000 m. Northern Malawi and southern Tanzania to Angola.

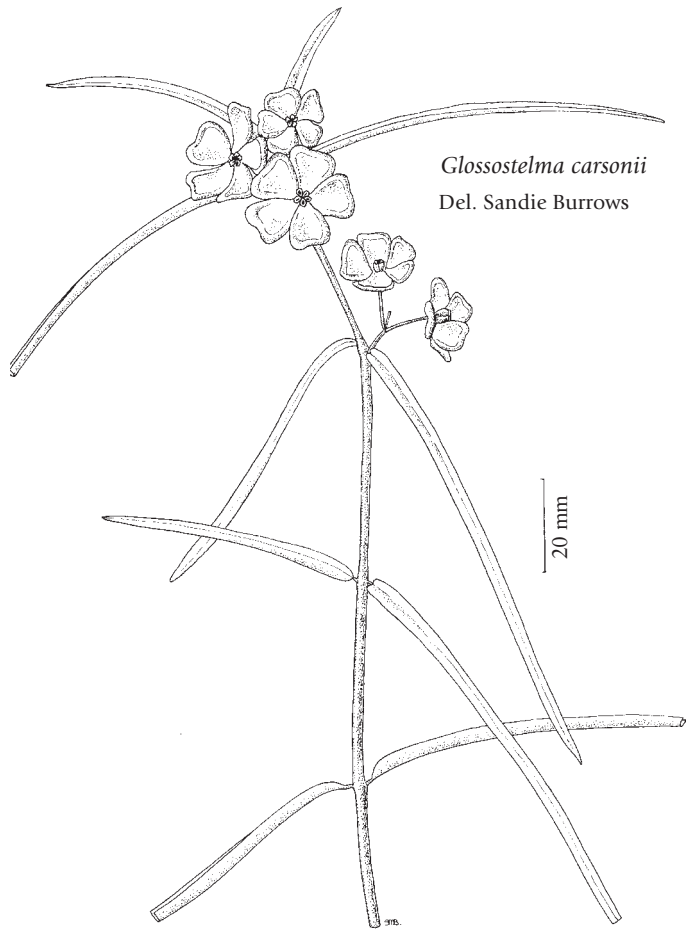
Source. *Goyder & Nicholas* (2001).

Malawi. Nyika Plateau, track to Rukuru River Falls, 1,800 m, 1959, *Richards* 10529 (K).

Cynanchum rungweense
Del. Sandie Burrows



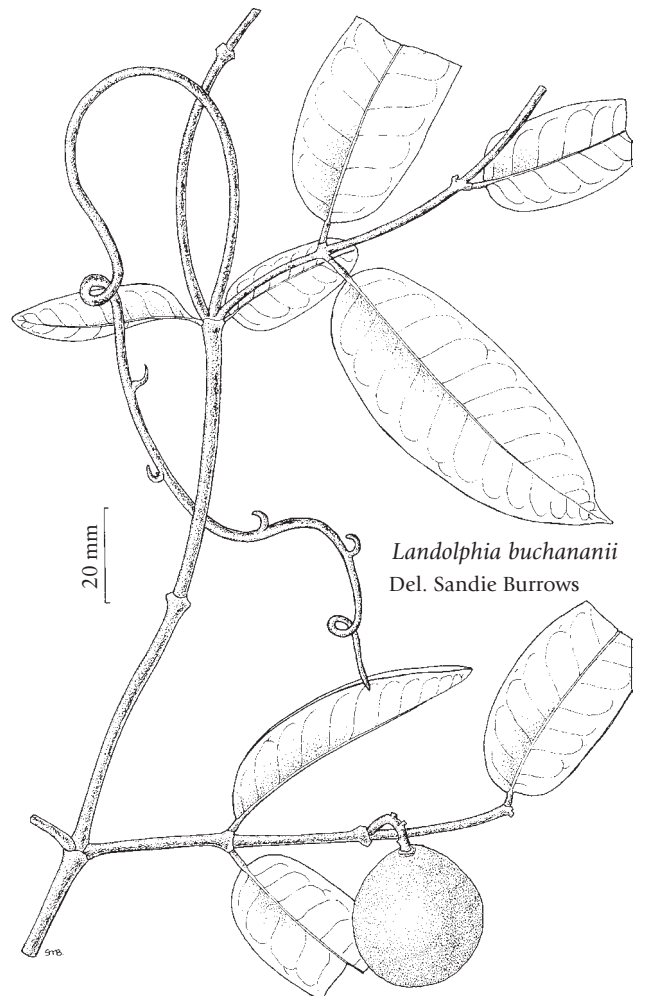
Glossostelma carsonii
Del. Sandie Burrows

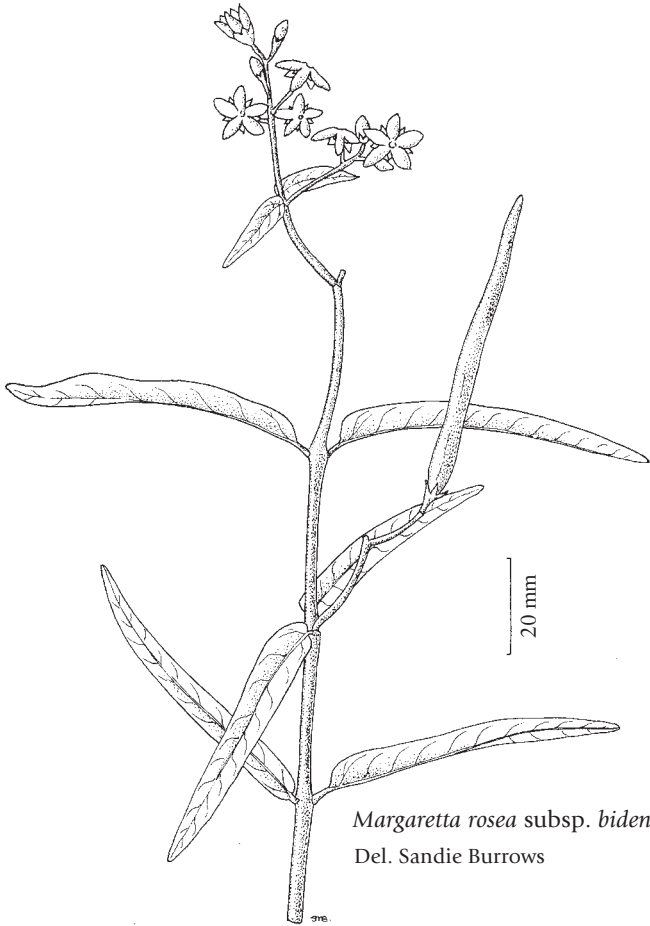


Gomphocarpus swynnertonii
Del. Sandie Burrows

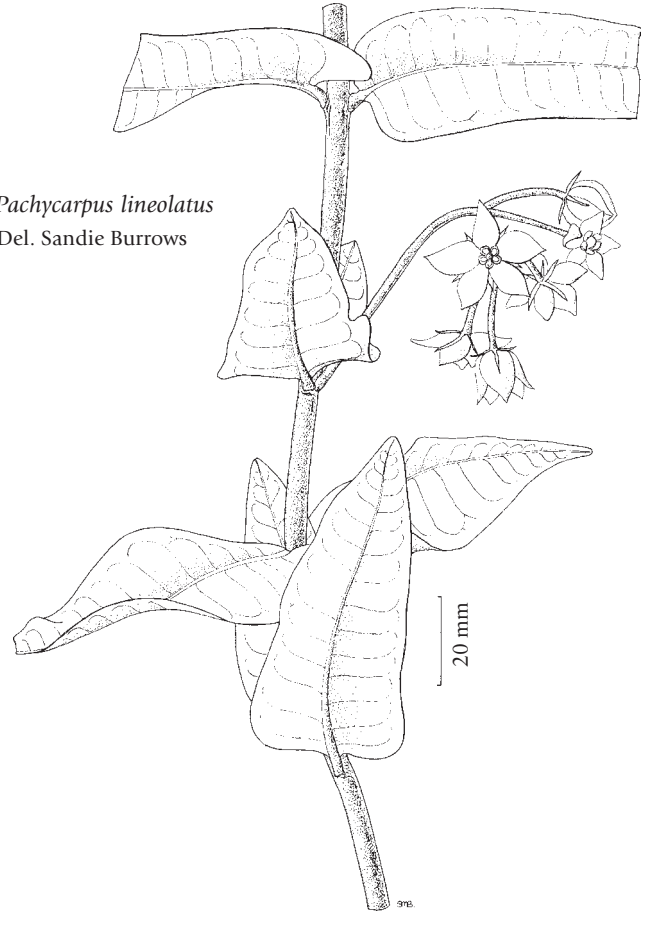


Landolphia buchananii
Del. Sandie Burrows

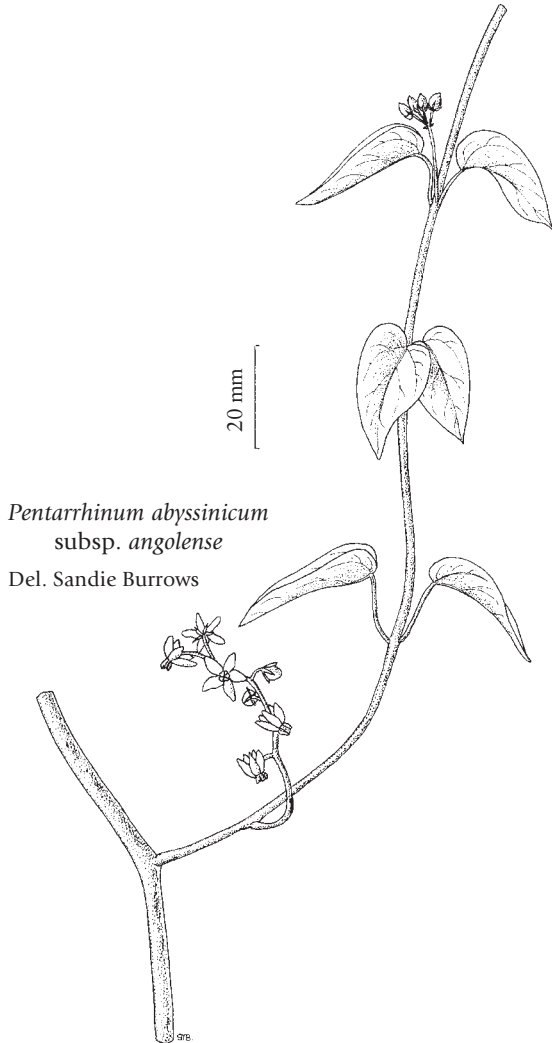




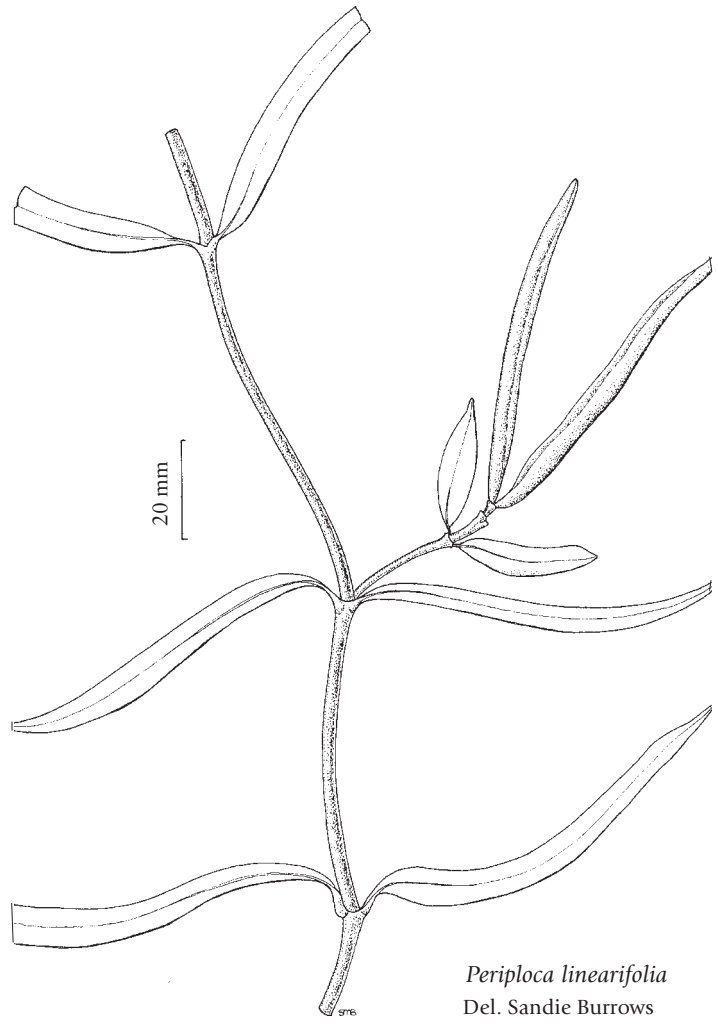
Margareta rosea subsp. *bidens*
Del. Sandie Burrows



Pachycarpus lineolatus
Del. Sandie Burrows



Pentarrhinum abyssinicum
subsp. *angolense*
Del. Sandie Burrows



Periploca linearifolia
Del. Sandie Burrows

Gomphocarpus swynnertonii (S.Moore) Goyder & Nicholas ❖*Asclepias nyikana* Schltr.; *Asclepias swynnertonii* S.Moore

Multi-stemmed herb with white latex, glaucous leaves, and small, greenish yellow flowers; in burnt montane grassland; 2,000–2,250 m. Southern Tanzania, Malawi, Mozambique, and Zimbabwe westwards to Angola.

Source. Goyder & Nicholas (2001).**Malawi.** Nyika Plateau, Lake Kaulime, 1958, *Robson & Angus 336* (K).**Zambia.** Nyika Plateau, near turn-off to Chelinda Camp, *Lees 111* (K).**Landolphia buchananii** (Hall.f.) Stapf ❖

Large liane up to 25 m, often with tendrils, leaves opposite, all parts with milky sap, flowers white, in terminal clusters; fruit round, to 100 mm diameter; in montane evergreen and riverine forest. Zimbabwe to D.R.C. and Tanzania. Fruit much loved by monkeys; stems used for making roofs of houses.

Malawi. Nyika National Park, Kasyaula Forest (Dowsett-Lemaire 1985).**Zambia.** Nyika National Park, Manyenjere, Kasoma, and Chowo Forests (Dowsett-Lemaire 1985).**Margaretta rosea** Oliv. subsp. **bidens** Bullock ❖*Margaretta cornetii* Dewèvre; *Margaretta decipiens* Schltr.; *Margaretta holstii* K.Schum.; *Margaretta orbicularis* N.E.Br.; *Margaretta pulchella* Schltr.; *Margaretta verdickii* De Wild.

Erect tuberous herb with white latex and flowers with a petaloid corona; in burnt grassland, usually in peaty soil; 2,000–2,500 m. Also known from Kenya, Tanzania, the Shaba region of D.R.C., Zambia, N.W. Zimbabwe, and Nigeria.

Source. Mwanyambo (1996).**Malawi.** Nyika Plateau, Mwenembwe, 1903, *McClounie 63* (K).**Pachycarpus goetzei** (K.Schum.) Bullock*Schizoglossum goetzei* K.Schum.; *Schizoglossum simulans* N.E.Br.Robust erect tuberous herb with white latex, lanceolate leaves, and nodding white or cream flowers; in *Brachystegia*–*Uapaca* woodland; 1,500–2,000 m. Also occurs in southern Tanzania and Zambia.**Source.** Goyder (1998).**Malawi.** Nyika National Park, 15 km N. of M1, 1977, *Pawek 12420* (K).**Pachycarpus lineolatus** (Decne.) Bullock ❖*Asclepias browniana* S.Moore; *Asclepias conspicua* N.E.Br.; *Asclepias inflexa* S.Moore; *Asclepias schweinfurthii* N.E.Br.; *Gomphocarpus lineolatus* Decne.; *Pachycarpus mildbraedii* Bullock; *Pachycarpus schweinfurthii* (N.E.Br.) BullockRobust erect tuberous herb with white latex, broad leaves, and nodding white or pink flowers; in *Brachystegia* or *Uapaca* woodland; 1,600–1,800 m. Widespread in tropical Africa.**Source.** Goyder (1998); Mill (1979).**Malawi.** Nyika National Park, 12 km N. of M1, 1978, *Pawek 13720* (K, MO, MAL); Juniper Forest Reserve, 2000, *Chikuni 522* (MAL).**Pachycarpus spurius** (N.E.Br.) Bullock*Schizoglossum debeersianum* K.Schum.; ?*Schizoglossum dolichoglossum* (K.Schum.) N.E.Br.; *Schizoglossum spurium* (N.E.Br.) N.E.Br.; ?*Xysmalobium dolichoglossum* K.Schum.; *Xysmalobium spurium* N.E.Br.

Robust erect tuberous herb to ca 1 m with white latex, broad leaves, and nodding cream or pink flowers; in montane grassland or open disturbed woodland; 1,500–2,000 m. Also recorded from southern Tanzania and the Shaba plateaux of D.R.C.

Malawi. Nyika Plateau N.E. of Nganda, *Patel, Ludlow & Scott 5127* (K).**Pentarrhinum abyssinicum** Decne. subsp. **angolense** (N.E.Br.) Liedt & Nicholas ❖*Pentarrhinum abyssinicum* Decne. var. *angolense* N.E.Br.

Twinner with heart-shaped leaves; climbing over vegetation at forest margins; 1,700–2,000 m. Scattered distribution from Cameroon, Uganda, and Kenya to Namibia, Zambia, and Tanzania.

Malawi. Nyika Plateau, Kafwimba Forest, 1969, *Pawek 2235* (K).**Periploca linearifolia** Quart.-Dill. & A.Rich. ❖*Periploca linearis* Hochst.

Woody twiner with white latex, linear leaves, and bearded white flowers; scrambling over margins of wet forest; 1,900–2,400 m. Widespread on E. African mountains from Ethiopia to Malawi.

Source. Brummitt (1973).**Malawi.** Nyika National Park, 8 km E. of Nganda, 1972, *Brummitt, Munthali & Synge 147* (K, MAL).**Zambia.** Nyika Plateau, margins of Chowo Forest, *Dowsett-Lemaire 98* (K).**Raphionacme longituba** E.A.Bruce ❖

Tuberous plant with more or less decumbent stems, latex milky; leaves opposite; fruit a pair of comparatively large horn-like pods; geophyte in shallow soils overlying sheetrock in montane grassland. Zimbabwe, Zambia, Malawi, and Tanzania.

Malawi. Nyika National Park, Mpopoti Peak, 2000, *Willis & Luhanga 89* (MAL, PRE).**Rauvolfia caffra** Sonder ❖

Briefly deciduous tree to 30 m tall, leaves clustered towards branch ends, flowers white or yellowish in stalked clusters, fruit round or lobed, red when ripe; in rainforest and riverine forest. Widespread throughout tropical Africa.

Malawi. Nyika Plateau, near Kasyaula Forest, without collecting details (Dowsett-Lemaire 1985: 313).**Rauvolfia mannii** Stapf*Rauvolfia rosea* K.Schum.

Understorey shrub or small tree to 4 m tall; leaves in whorls of 3–6, flowers white or yellowish in stalked clusters, fruit of 1 or 2 ovoid or obovoid carpels, red when ripe; in wet situations in rainforest. From the Viphya Mountains of Malawi northwards throughout tropical Africa.

Malawi. Nyika National Park, Mwenembwe, *Chapman 2019* (White *et al.* 2001); Eastern escarpment forests (Dowsett-Lemaire 1985: 354).**Riocreuxia chrysochroma** (Huber) A.R.Sm.*Ceropegia chrysochroma* Huber

Herbaceous vine with clear latex and heart-shaped leaves; flowers orange within, lobes not united at tips; in scrub or forest patches; 2,000–2,400 m. Known only from the Nyika Plateau and the adjacent Kitulo and Kipengere ranges in southern Tanzania.

Source. White *et al.* (2000).**Malawi.** Nyika Plateau, relic forest patch on E. side of Chelinda Valley, 1958, *Robson & Fanshawe 643* (K).**Riocreuxia profusa** N.E.Br. ❖*Ceropegia burchellii* (K.Schum.) Huber subsp. *profusa* (N.E.Br.) Huber; *Riocreuxia torulosa* Schltr.

Herbaceous vine with clear latex and heart-shaped leaves, flowers pale orange or yellow, tubular, with slender lobes united at tips; on margins of montane forest; 1,900–2,400 m. Tanzania, Malawi, Zambia, Zimbabwe, and Angola.

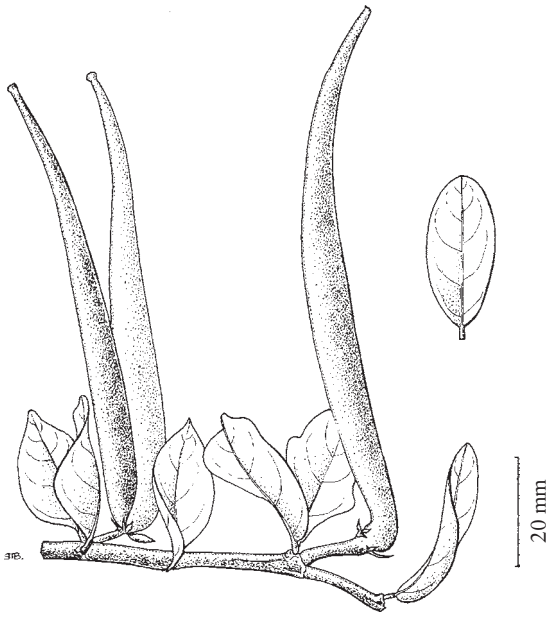
Source. White *et al.* (2001: 165)**Zambia.** Nyika Plateau, forest patch near Rest House, *Dowsett-Lemaire 97* (K).**Secamone alpini** Schult. ❖*Periploca secamone* L.; *Secamone thunbergii* E.Mey.

Slender woody twiner with white latex, leathery leaves, and minute velvety white flowers; on forest margins; 2,000–2,400 m. Widespread over E. African mountains and coastal forests in South Africa.

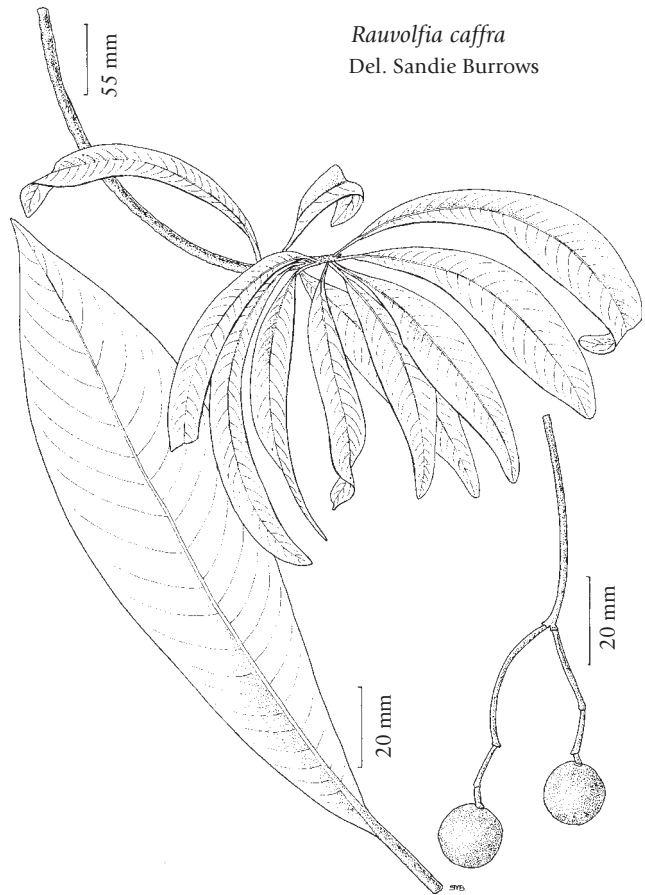
Source. Goyder (1992).**Malawi.** Nyika National Park, without locality or collector (Mill 1979).**Zambia.** Nyika Plateau, margins of Chowo Forest, *Dowsett-Lemaire 99* (K).**Stathmostelma fornicatum** (N.E.Br.) Bullock subsp. **fornicatum** ❖*Asclepias fornicata* N.E.Br.

Erect single-stemmed tuberous herb with white latex, linear leaves, and green or yellow flowers; in seasonally waterlogged grassland; 2,400 m. Found at lower altitude elsewhere in Malawi, Zambia, Zimbabwe, Botswana, and Angola.

Raphionacme longituba
Del. Sandie Burrows



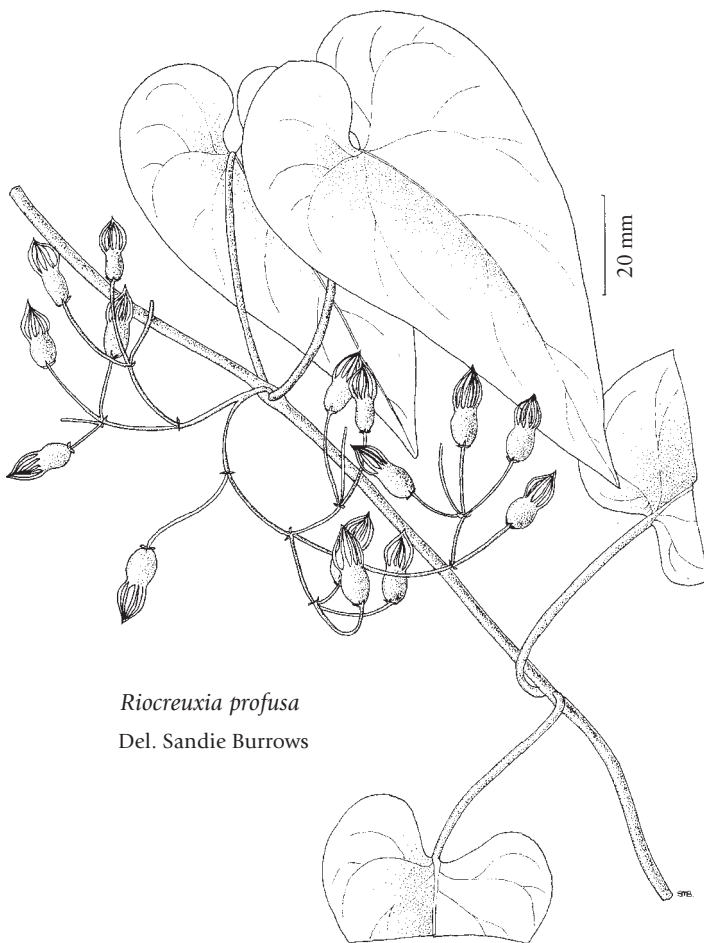
Rauvolfia caffra
Del. Sandie Burrows



Secamone alpini
Del. Sandie Burrows



Riocreuxia profusa
Del. Sandie Burrows



Source. Goyder (1988)

Malawi. Nyika Plateau, 1903, *McClounie 81* (K).

Tabernaemontana stapfiana Britten ❖

Tabernaemontana johnstonii (Stapf) Pichon; *Conopharyngia stapfiana* (Britten) Stapf

Tree 5–25 m tall, leaves opposite, 120–400 x 30–140 mm, narrowly elliptic, glabrous; flowers white, large, sweetly scented; fruit in pairs or single, large, 100–200 mm across, green with yellowish dots; in montane forest, 700–2,500 m. Zimbabwe and Mozambique to D.R.C. and Kenya.

Source. Mill (1979).

Malawi. Nyika National Park, eastern escarpment forests (Dowsett-Lemaire 1985: 354).

Tacazzea conferta N.E.Br. ❖

Tacazzea floribunda K.Schum.; *Tacazzea galactagoga* Bullock

Robust woody twiner with white latex; scrambling over forest margins; 2,000–2,200 m. Widely distributed in tropical Africa from Ethiopia to Malawi.

Malawi. Nyika Plateau, Zovochipolo Forest patches, *Dowsett-Lemaire 251* (K).

Zambia. Nyika Plateau, Chowo Forest, 1976, *Pawek 11783* (K, MAL, MO).

Trachycalymma buchwaldii (Schltr. & K.Schum.) Goyder ❖

Asclepias affinis De Wild.; *Asclepias buchwaldii* (Schltr. & K.Schum.) De Wild.; *Gomphocarpus buchwaldii* Schltr. & K.Schum.

Short, erect, single-stemmed, tuberous herb with white latex and nodding purple flowers; in montane grassland or *Brachystegia* woodland, generally on steep rocky hillsides; 900–2,400 m. Also found in Tanzania, Burundi, and D.R.C.

Source. Goyder (2001).

Malawi. Nyika National Park, escarpment below Jalawe Viewpoint, 1992, *Goyder, Paton & Tawakali 3581* (K, MAL).

Trachycalymma cristatum (Decne.) Bullock

Asclepias cristata S.Moore; *Asclepias palustris* (K.Schum.) Schltr.; *Gomphocarpus cristatus* Decne.; *Gomphocarpus palustris* K.Schum.

Short, erect, single-stemmed, tuberous herb with white latex and nodding white or pink flowers; montane grassland or open woodland; 2,000–2,600 m. Widespread in tropical sub-Saharan Africa from Nigeria to An-

gola and Zimbabwe.

Source. Goyder (2001).

Malawi. Nyika Plateau, Circular Drive, 1977, *Pawek 12271* (K, MO).

Zambia. Nyika Plateau, Rest House, 2,100m, 1959, *Richards 10410* (K).

Trachycalymma foliosum (K.Schum.) Goyder

Asclepias foliosa (K.Schum.) Hiern; *Asclepias lepida* S.Moore; *Asclepias minuta* A.Chev.; *Asclepias modesta* N.E.Br.; *Gomphocarpus foliosus* K.Schum.; *Trachycalymma pulchellum* sensu Bullock, in part

Erect, single-stemmed, tuberous herb with white latex and nodding white flowers; *Brachystegia* woodland; 1,100–2,000 m. Widespread in savanna regions of S. tropical Africa and W. Africa.

Source. Goyder (2001).

Malawi. Nyika, 1 mile in Nyika Road [from Rumphii?], 4,900', 1969, *Pawek 3249* (K).

Tylophora anomala N.E.Br.

Slender woody twiner with watery latex, large leathery ovate-lanceolate leaves and zig-zag inflorescences with green flowers in clusters; forest margins; 1,500–2,000 m. Kenya, Tanzania, Zambia, Malawi, and Mozambique.

Malawi. Nyika Plateau, Kasyaula Forest, *Dowsett-Lemaire 243* (K).

Tylophora erubescens (Liede & Meve) Liede ❖●

Tylophoropsis erubescens Liede & Meve

Slender twiner with clear latex, leaves ovate ca 10 mm long; flowers delicate maroon; in wet montane forest; 1,800–2,300 m. Also known from S. Tanzania.

Malawi. Nyika National Park, Zovochipolo Forest, 2000, *Winter & Burrows 4143* (K, PRE).

Xysmalobium undulatum (L.) Ait.f. ❖

Asclepias undulata L.; *Xysmalobium ensifolium* Burch. ex Sc.-Elliot; *Xysmalobium angolense* Sc.-Elliot

Stout erect herb with white latex, triangular leaves, and hairy, reddish purple flowers, fruit covered in hairy prickles; in damp hollows in montane grassland; 2,000–2,250 m. Widespread in sub-Saharan Africa.

Source. Brummitt (1973).

Malawi. Nyika National Park, W. foot of Nganda, 1972, *Brummitt & Synges 35* (K).

Excluded species

Landolphia kirkii Dyer

Straggling shrub or liane to 18 m tall. This record is doubtful. Dowsett-Lemaire (1985) did not find it in her comprehensive survey of the Nyika forests. Both White *et al.* (2001) and *Flora zambesiaca* (1985) do not record this species from N. Malawi. Since Patel quoted no specimen and we have seen no specimens, it is excluded.

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Gomphocarpus glaucophyllus Schltr.

This is almost certainly *G. praticola*.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Stathmostelma welwitschii Britt. & Rendle

Asclepias welwitschii (Britt. & Rendle) Britt. & Rendle; *Stathmostelma chironoides* K.Schum. ex De Wild. & T.Durand; *Stathmostelma laurentianum* Dewevre

This species does not occur in the area. The record may come from a misidentified specimen of *Asclepias randii* at K, MO, and SRGH labelled *S. cf. welwitschii*, or is *S. fornicatum*.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Stenostelma sp.

This is not *Stenostelma*; probably refers to *Asclepias* sp. (= *Richards 57*(K)).

Malawi. Nyika National Park, without locality or collecting details (Patel 1999).

Trachycalymma pulchellum (Decne.) Bullock

This is almost certainly *T. foliosum*.

Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

AQUIFOLIACEAE

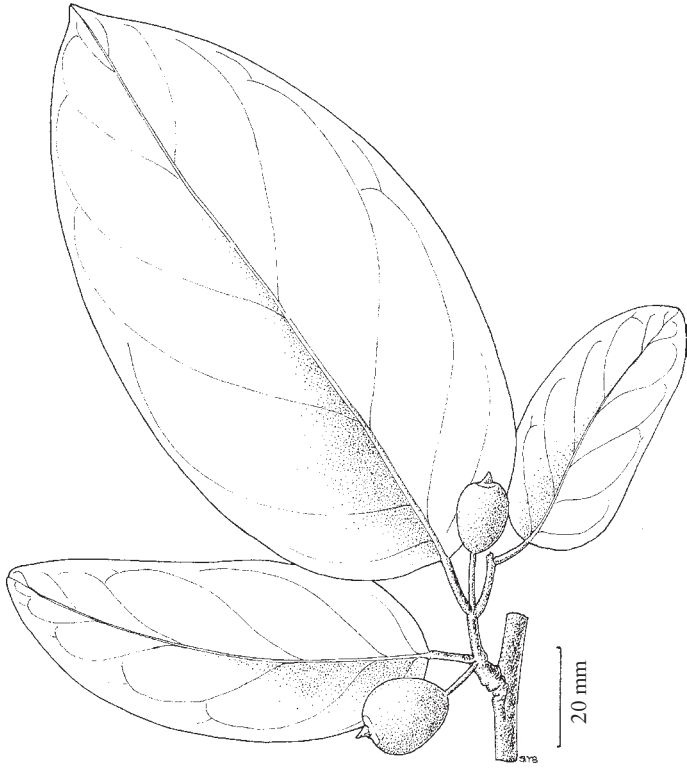
Ilex mitis (L.) Radlk. ❖

Cape holly; *Chichewa*: katenji; *Yao*: katenji, mulisanyundo

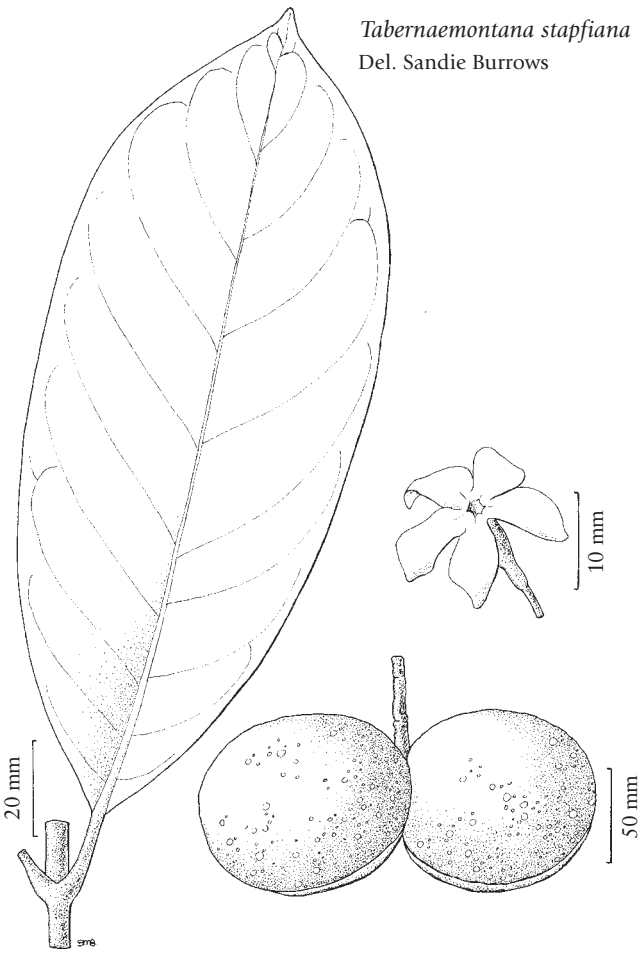
Evergreen tree to 20 m, leaves simple, margins almost entire with a few minute teeth near the apex, fruit (female trees only) a small red berry; along streams and rivers in evergreen forest and riverine vegetation. From South

Africa (Western Cape) to Ethiopia and Guinea.

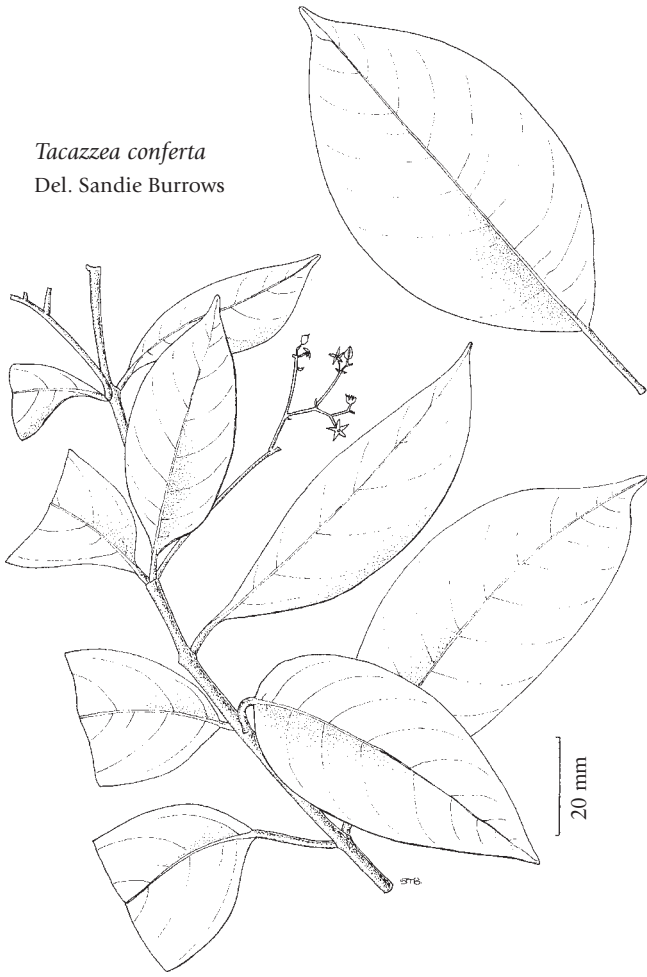
Malawi. Nyika National Park, Lake Kaulime, 1958, *Robson 277* (BM, K, LISC, PRE, SRGH); Dembo Bridge, 2000, *Thera 3009* (MAL); near Chelinda Compound, 1959, *Adlard 312* (FHO, SRGH).



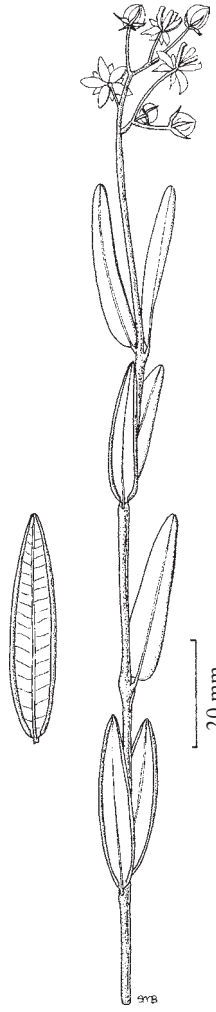
Stathmostelma fornicatum subsp. *fornicatum*
Del. Sandie Burrows



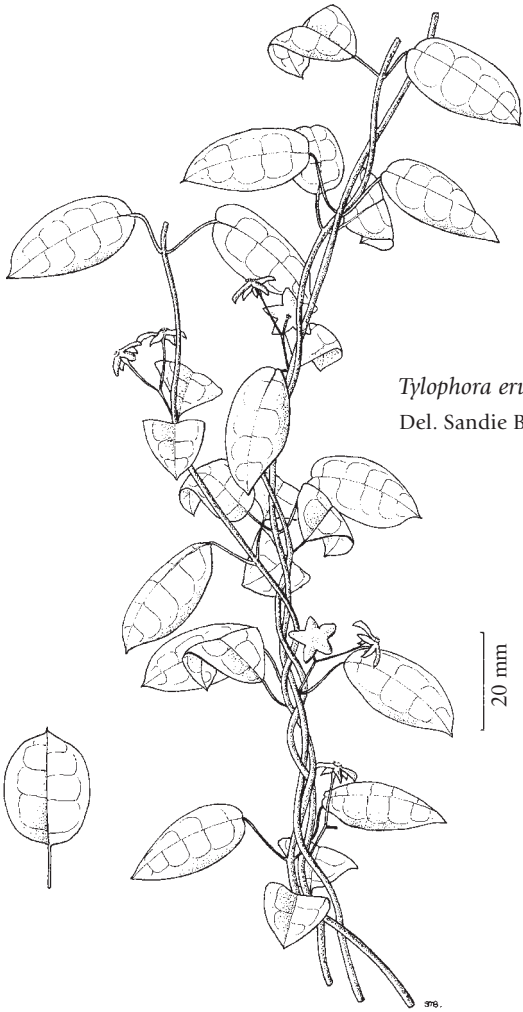
Tabernaemontana stapfiana
Del. Sandie Burrows



Tacazzea conferta
Del. Sandie Burrows

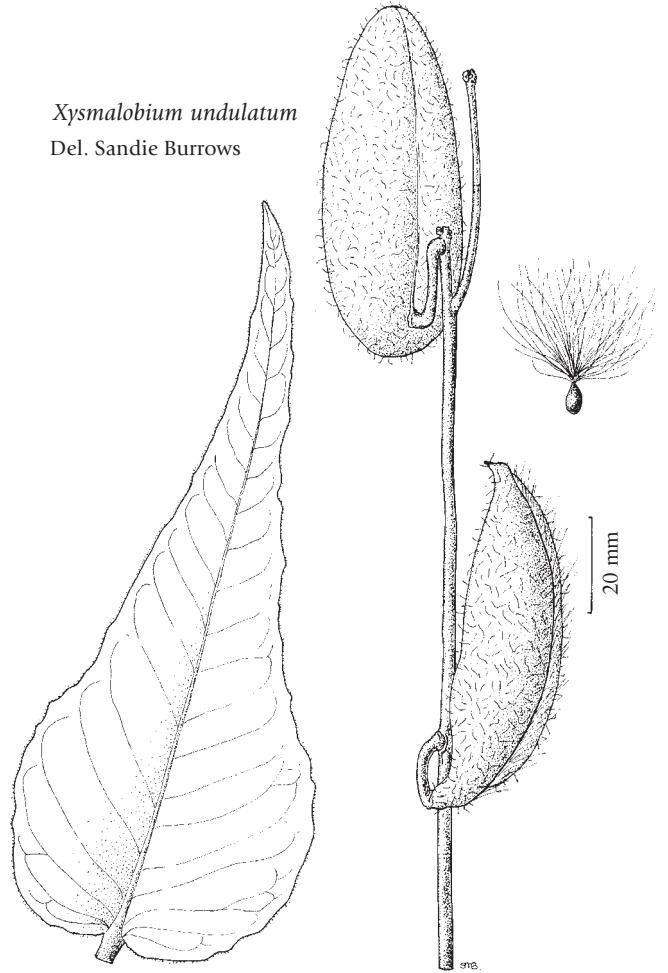


Trachycalymma buchwaldii
Del. Sandie Burrows

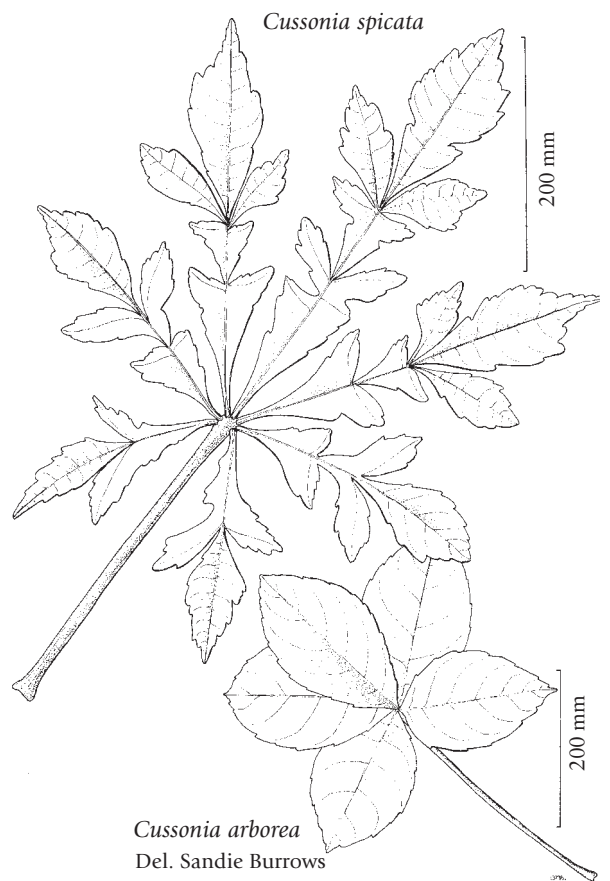


Tylophora erubescens
Del. Sandie Burrows

Xysmalobium undulatum
Del. Sandie Burrows



Ilex mitis
Del. Sandie Burrows



Cussonia arborea
Del. Sandie Burrows