

ARALIACEAE

Cussonia arborea Hochst. ex A.Rich. ❖

Cussonia kirkii Seem.

octopus cabbage tree; *Chichewa*: m'bwabwa; *Tumbuka*: chipombora; *Yao*: chandimbo

Small to medium deciduous tree to 11 m tall; leaves digitate, leaflets sessile, simple, obovate, glabrous, margins variously toothed; flowers and fruit in 10–12 long sinuous spikes; in open woodland or wooded grassland. Very widely spread in tropical Africa.

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

Cussonia spicata Thunb. ❖

cabbage tree; *Yao*: chandimbo

Tree to 20 m tall, often with a small, dense, rounded crown, stem fluted in old specimens; leaves digitate, leaflets lobed apically, with the stalks distinctly winged upwards, dark green, hairless, margins irregular; fruiting inflorescence of several thickened erect 'fingers'; in forest, open woodland, wooded grassland, and riverine forest; up to 2,500 m. South Africa to E. Africa.

Source. Brummitt (1973).

Malawi. Nyika Plateau, W. foot of Nganda, 1972, *Synge* 472 (K, MAL).

Zambia. Nyika Plateau, Kangampande Mountain, 1952, *White* 2569 (K).

Polyscias fulva (Hiern) Harms ❖

Polyscias malosana Harms [Type: Malawi, Malosa Mountain, *Whyte* s.n. (K)].

parasol tree

Tall tree to 30 m, with a tall clear bole; leaves large, pinnate, dark green above, minutely hairy below; inflorescence a complex arrangement of racemes; fruit 3–5 mm diameter, fleshy, ribbed; in forest; up to 2,500 m. Widespread throughout tropical Africa from Zimbabwe northwards. A fast-growing pioneer species, often with the crown conspicuous above the forest canopy.

Malawi. Nyika Plateau, Kasyaula and Zovochipolo Forests (Dowsett-Lemaire 1985: 315).

Zambia. Nyika Plateau, Manyanjere, Kasoma, and Chowo Forests (Dowsett-Lemaire 1985: 315).

Schefflera abyssinica (A.Rich.) Harms

Robust liane or epiphyte up to 30 m; leaves digitate with 5–7 radiating leaflets, leaflets leathery, hairless, margin serrulate, veins conspicuous and regularly spaced; inflorescence a sparse raceme of small umbels, up 150–350 mm long; fruit round, to 5 mm diameter; in montane forest, scrambling up trees; up to 2,800 m. Malawi to Cameroon and Ethiopia; rare on the Nyika Plateau.

Source. Mill (1979).

Malawi. Nyika National Park, Kasyaula Forest (Dowsett-Lemaire 1985: 379).

Schefflera goetzenii Harms

Robust liane or small tree; very similar to *S. abyssinica*, but with the leaf lateral veins rather inconspicuous and irregular; in montane forests; 950–2,500 m. Zimbabwe to D.R.C. and E. Africa.

Malawi. Nyika Plateau, Zovochipolo Forests (Dowsett-Lemaire 1985: 379).

Zambia. Nyika Plateau, Chowo Forests (Dowsett-Lemaire 1985: 379).

Schefflera myriantha (Baker) Drake ❖

Schefflera polysciada Harms

Robust liane, shrub or small tree to 16 m tall; leaves digitate, very similar to the two species mentioned above, but the inflorescence is a panicle (not raceme) of small umbels; in riverine and montane forests; up to 3,500 m. Also in tropical E. Africa. Confined to the eastern escarpment forests on the Nyika.

Source. *Flora zambesiaca* 4: 624 (1978); Dowsett-Lemaire (1985: 355).

Malawi. Nyika Plateau, without precise locality, 1946, *Brass* 17278 (K, SRGH).

ASTERACEAE

Acmella caulirhiza Del. ❖

Spilanthes africana DC.; *Spilanthes caulirhiza* (Del.) DC.

Creeping and ascending perennial or annual herb to 150 mm high or stems to 600 mm long, often rooting at the nodes; leaves narrowly to broadly ovate, 10–70 x 8–40 mm, base attenuate, margin dentate, petiole 1–15 mm long and narrowly winged; capitula hemispherical becoming conical, terminal, solitary on peduncles to 2–70 mm long; rays 10–15, yellow, 2.2–3.3 mm long, inconspicuous; in wet places by streams and in swamps, cultivated areas, and forest margins. Widespread in tropical and subtropical Africa and Madagascar.

Source. Wild (1967: 60); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika Plateau, Rukuru River, 1958, *Robson* 469 (BM, K, SRGH).

Adenostemma cafferum DC. var. **asperum** Brenan ❖

Adenostemma schimperi A.Rich.

Vigorous, erect or semi-procumbent semi-succulent herb, 1.5 m high, rooting at nodes; leaves sessile or shortly petiolate, blade lanceolate to ovate-lanceolate, 40–125 x 13–48 mm, margins sub-entire to serrate, apex obtuse; inflorescence a loose terminal cyme; capitula few to several, 6–10 mm diameter; florets about 50, corolla 3–4 mm long, white; in damp places along streams in forest or woodlands. Widespread throughout tropical Africa.

Source. Patel (1999); Brummitt (1973); Hilliard (1977); King & Robinson (1987); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, 8 km E. of Nganda, 1972, *Brummitt, Munthali & Synge* 132 (K, MAL, SRGH); Wovwe River, 2000, *Willis & Patel* 155 (PRE).

Ageratinastrum polyphyllum (Baker) Mattf. ❖

Ageratinastrum goetzeanum (O.Hoffm.) Mattf.; *Ageratina goetzeana*

O.Hoffm.; *Ageratum polyphyllum* Baker

Erect tufted perennial herb to 1 m high with annual stems; stems many,

densely leafy, densely pilose-tomentose and glandular; leaves sessile or subsessile, overlapping, alternate or spirally arranged, 2–45 x 4–12 mm, narrowly oblong-lanceolate to narrowly elliptic or ovate; capitula numerous corymbiform cymose; corollas purple; Malawi, Zambia, and Tanzania.

Source. Patel (1999); *Flora zambesiaca* 6(1): 181 (1992); Wild & Pope (1975: 358); Patel & Overton (2002).

Malawi. Nyika Plateau, Nchenachena Spur, ca 2,000 m, 1946, *Brass* 17345 (BM, K, SRGH); Chelinda Bridge, 2000, *Salubeni & Mwanyambo* 6768 (MAL); Mbusinandu, 2000, *Salubeni & Mwanyambo* 6827 (MAL).

Zambia. Nyika National Park, ca 0.5 km S.W. of Zambian Government Rest House, 1986, *Philcox, Pope & Chisumpa* 9978 (BR, K, LISC, MO, NDO, SRGH).

***Ageratum conyzoides** L. ❖

Annual herb up to 1 m high, stem erect to occasionally decumbent, whitish pubescent; leaves opposite, ovate to rhomboid, 22–85 x 12–60 mm, margins crenate to serrate; capitula 7–40 in open to dense cyme, 4–5 mm across; florets 40–57, corolla 2–2.2 mm long, white, mauve or purple; a pantropical weed of cultivation, often near water. Native to West Indies, Mexico, Central and S. America; throughout tropical and southern Africa.

Source. Patel (1999); Patel & Overton (2002).

Malawi. Nyika National Park, without locality or collecting details (Patel 1999: 21).

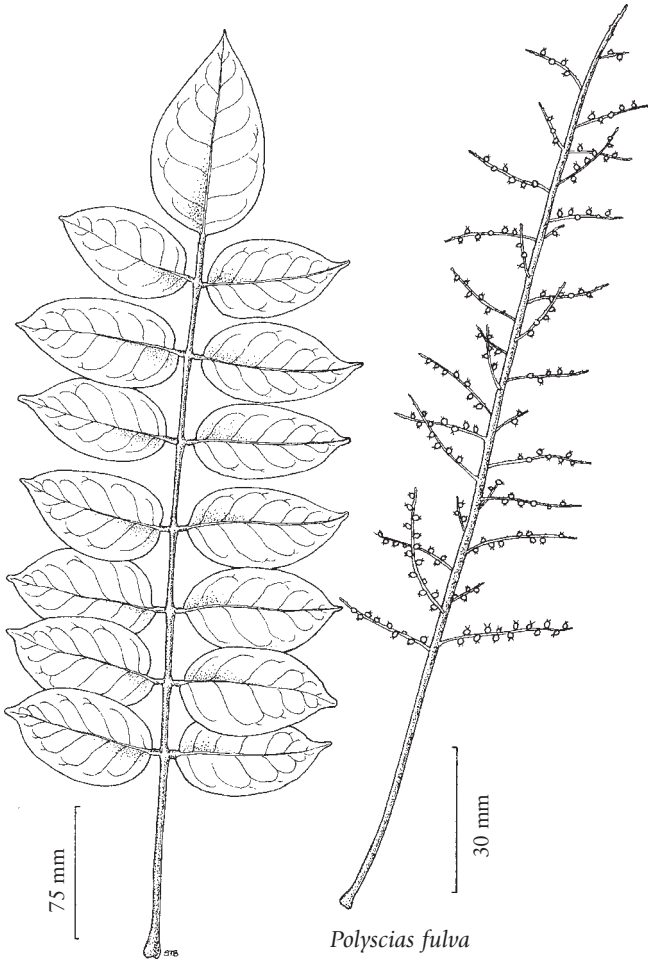
Anisopappus chinensis (L.) Hook. & Arn. subsp. **buchwaldii** (O.Hoffm.) S.Ortiz, Paiva & Rodr.-Oubiña var. **buchwaldii** ❖

Anisopappus africanus (Hook.f.) Oliv. & Hiern; *Anisopappus*

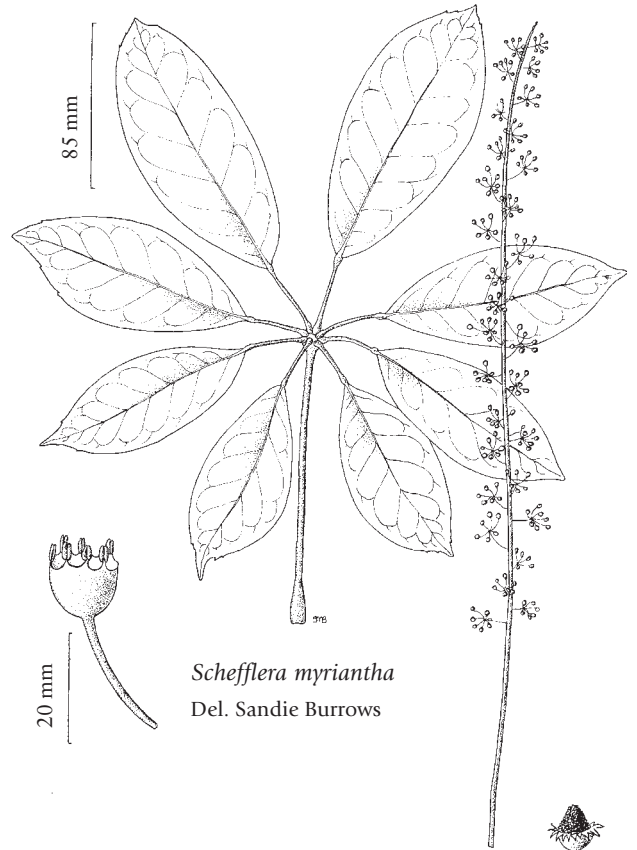
buchwaldii (O.Hoffm.) Wild; *Anisopappus chinensis* (L.) Hook.f. & Arn. subsp. *buchwaldii* (O.Hoffm.) S.Ortiz, Paiva & Rodr.-Oubiña var.

macrocephala (Humbert) S.Ortiz, Paiva & Rodr.-Oubiña

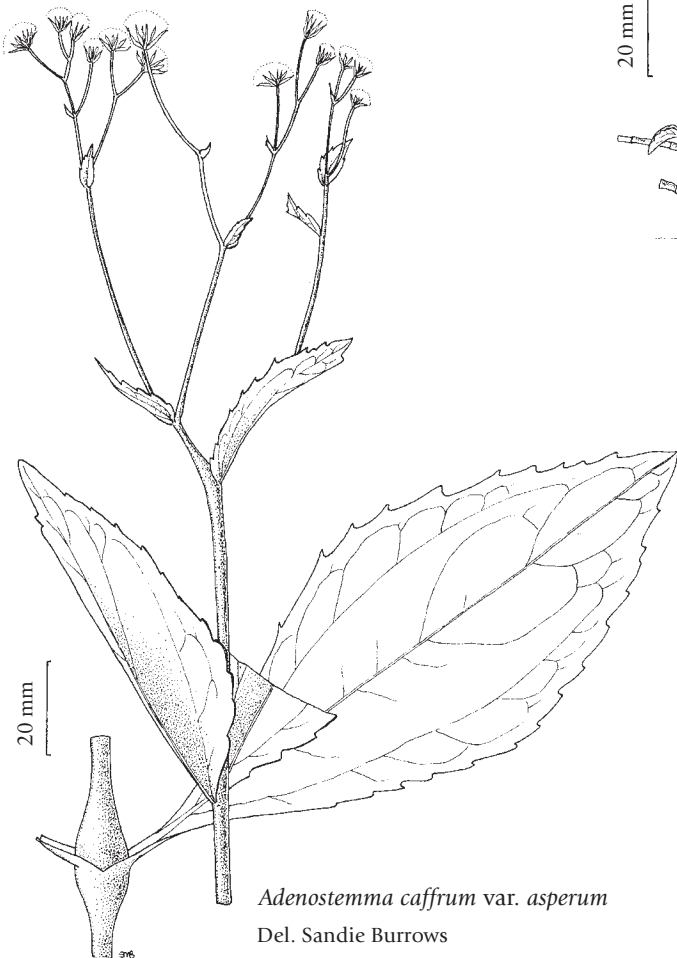
Perennial herb or shrublet, 0.4–1.5 m high, stems white-puberulous; leaves



Polyscias fulva
Del. Sandie Burrows



Schefflera myriantha
Del. Sandie Burrows



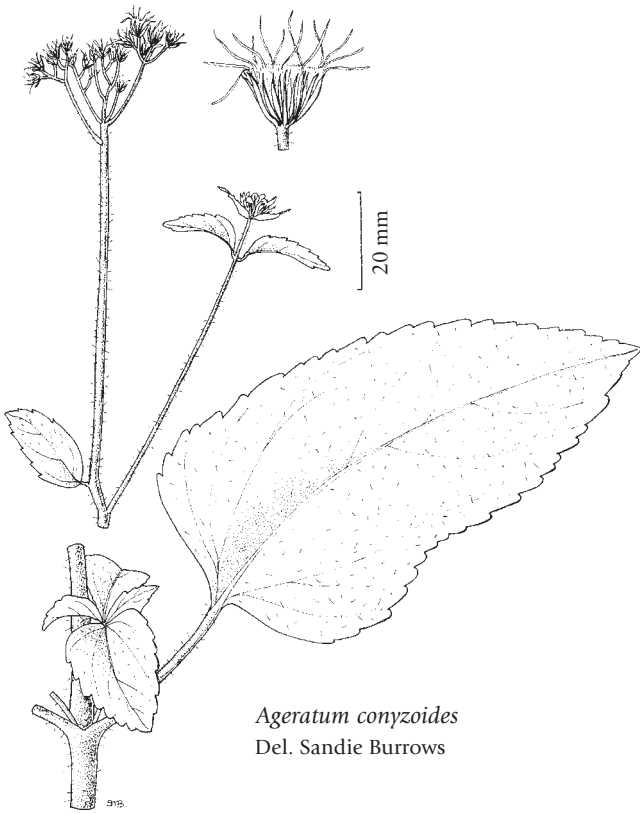
Adenostemma cafferum var. *asperum*
Del. Sandie Burrows



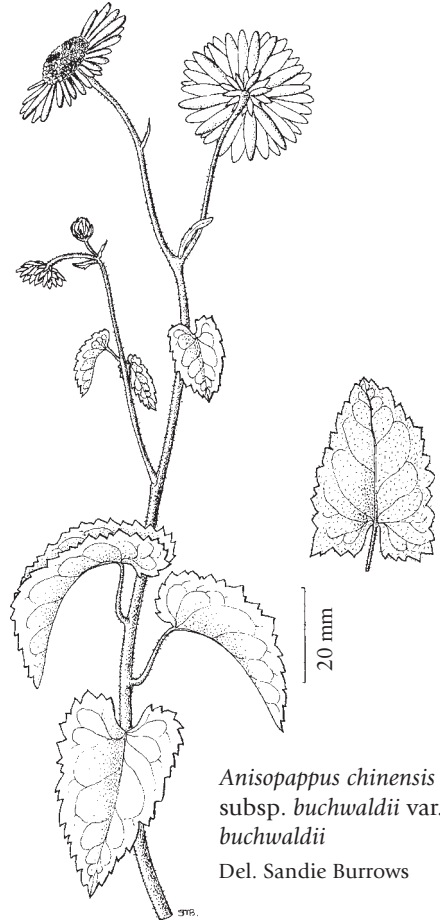
Acmella caulirhiza
Del. Sandie Burrows



Ageratinastrum polyphyllum
Del. Eleanor Catherine



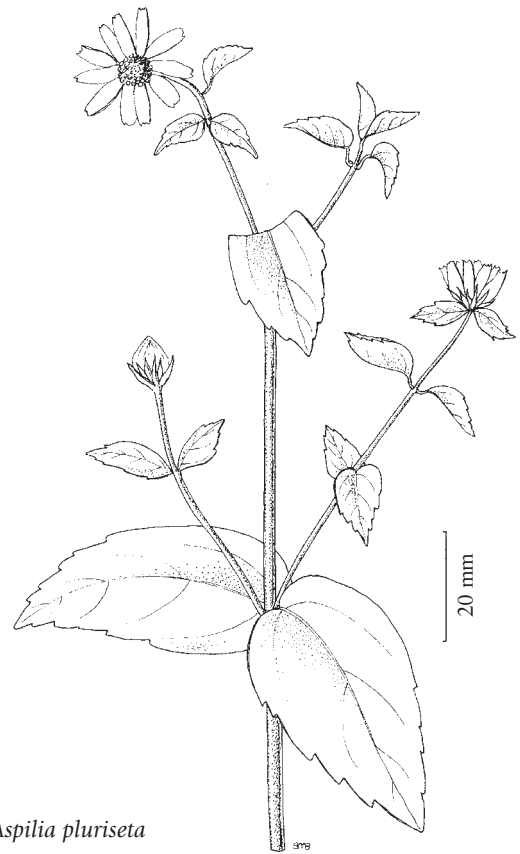
Ageratum conyzoides
Del. Sandie Burrows



Anisopappus chinensis
subsp. *buchwaldii* var.
buchwaldii
Del. Sandie Burrows



Artemisia afra
Del. Sandie Burrows



Aspilia pluriseta
Del. Sandie Burrows

ovate to deltoid, 10–60 x 3–55 mm, glandular, margins crenate; capitula 5–12 mm long; florets yellow, tube of outer florets 1.4–2.5 mm long, sparsely glandular, ray 6–10 mm long; disc florets 1.7–4.5 mm long; in submontane grassland or miombo woodland, often in damp or marshy sites and thicket margins. Widespread in tropical Africa.

Source. Patel (1999); *F.T.E.A. Compositae* (2): 345 (2002).

Malawi. Nyika National Park, Chelinda Bridge, 2000, *Salubeni & Mwanyambo 6770* (MAL); Dembo Bridge, 2000, *Thera 3008* (MAL); Juniper Forest, 2000, *Chikuni 507* (MAL); Southern Circular Route, Chelinda Bridge, 10° 40'15"S, 33° 51' 21"E, 2000, *Koekemoer 1780* (PRE); Wovwe River catchment area, 2000, *Willis 166* (PRE).

Anisopappus chinensis (L.) Hook. & Arn. subsp. **buchwaldii** (O.Hoffm.) S.Ortiz var. **dentatus** (DC.) S.Ortiz, Paiva & Rodr.-Oubiña

Epalage dentata DC. var. *macrocephala* Humbert

Annual herb, 0.1–1 m high, stems reddish or pale green, pubescent; leaves ovate or deltoid, 10–60 x 4–55 mm, pilose and glandular; capitula 4–7 mm long; florets yellow, ray 2.6–5.5 mm long and sparsely glandular below; achenes 0.8–1.1 mm long; pappus absent; grassland, miombo woodland, roadsides, weed of cultivation. Uganda and D.R.C. to Angola, Mozambique, and Zimbabwe.

Source. Patel (1999); *F.T.E.A. Compositae* (2): 346 (2002).

Malawi. Chelinda Bridge, 2000, *Salubeni & Mwanyambo 6770* (MAL); Mbusinandu, 2000, *Salubeni & Mwanyambo 6817* (MAL); Dembo Bridge, 2000, *Thera 3008* (MAL); Juniper Forest, 2000, *Chikuni 507* (MAL); Nyika National Park, Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1689* (PRE).

Anisopappus chinensis (L.) Hook.f. & Arn. subsp. **chinensis**

Verbesina chinensis L.; *Anisopappus aureus* Hutch. & B.L.Burt;

Anisopappus canescens Hutch.

Perennial herb, 0.3–0.9 m high, stem single, white-pilose; leaves elliptic or ovate, 20–65 x 3–30 mm, base cuneate; capitula 7–10 mm long; phyllaries densely pilose and glandular; florets yellow, tube of outer florets 0.8–1.8 mm long, ray 3.5–6 mm long, disc floret tubes 2.5–3.4 mm long; achenes 1.5–2.2 mm long, short-pilose on ribs; in wooded grassland. Malawi to Angola, W. Africa, Mali, and Chad; also in India, China, Thailand, Burma, and Vietnam.

Source. *F.T.E.A. Compositae* (2): 344 (2002).

Malawi. Nyika National Park, without locality or collecting details (Mill 1979); sight record: Mpopoti Peak, *Salubeni*, 2001.

Anisopappus kirkii (Oliv.) Brenan

Sphacophyllum kirkii Oliv.; *Sphacophyllum flexuosum* Hutch.

Perennial herb, to 1 m high, stem tomentose; leaves 80–140 x 40–90 mm, base cuneate; capitula 15 mm long, in terminal corymb; phyllaries densely pilose and glandular; florets yellow, ray florets 30, tube 3 mm long, ray 8 x 2.5 mm; disc floret tubes 3.5 mm long; achenes cylindrical, to 1.5 mm long, glabrous; pappus of unequal scales 0.3–1 mm long; in wooded grassland. Zimbabwe, Malawi, and Mozambique.

Source. *Kew Bulletin* 7: 249 (1906); Ortiz *et al.* (1996).

Malawi. Nyika National Park, Mpopoti, 2000, *Mwanyambo 550* (MAL).

Artemisia afra Jacq. ex Willd. ❖

Artemisia afra Willd. var. *friesiorum* Chiov.

Woody, perennial herb 0.3–2 m high, strongly aromatic, white-pubescent and glandular; leaves grey-green above, grey to whitish beneath, bi- to tripinnatifid, 30–140 x 15–60 mm, pseudopetiole 10–40 mm long; capitula 2–4 mm long, many (hundreds) in large panicles with individual capitula nodding; outer florets 1-seriate, 4–10, 1.2–1.4 mm long; inner florets 10–35, yellow or pale yellow, 1–1.8 mm long; in high mountain grassland, wooded grassland, in secondary vegetation, pioneer after fire. Widespread from South Africa through tropical E. Africa to Ethiopia.

Source. Dowsett-Lemaire (1985); Patel (1999); Brummitt (1973); *F.T.E.A. Compositae* (2): 529 (2002).

Malawi. Nyika Plateau; N.W. foot of Nganda, 1972, *Brummitt & Synge 26* (K, MAL); W. of Vitinthiza Hill, 2000, *Salubeni & Mwanyambo 6764* (MAL); Dembo Bridge, 2000, *Thera 3015 & 3019* (MAL); Juniper Forest, 2000,

Chikuni 501 (MAL); close to Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1693* (PRE).

Aspilia kotschy (Hochst.) Oliv. var. **kotschy**

Dipterotheca kotschy Hochst.

Annual herb 0.3–1.8 m high; leaves (sub-) sessile, narrowly ovate to narrowly elliptic 30–160 (200) x 6–30(50) mm, base obtuse, truncate or semi-amplexicaul, margin subentire or shallowly crenate, hispid on both surfaces; capitula axillary, solitary and subsessile among the upper leaves; ray florets dark red, purple or almost black, less often white, 2–5(11), without styles, ray almost circular, 6–9 mm long; achenes obovoid, 5–6 mm long; pappus a lacerated cupule to 1 mm long and usually with 2 setae; in moist grassland, waste land, a weed of cultivation. Widespread in Central Africa.

Source. Patel (1999); Wild (1966); *F.T.E.A. Compositae* (3) (unpublished ms.); Patel & Overton (2002).

Malawi. Nyika Plateau, 1903, *McClounie 165* (K).

Aspilia mossambicensis (Oliv.) Wild

Wedelia mossambicensis Oliv.; *Aspilia vernayi* Brenan; *Aspilia natalensis* sensu Wild

Perennial herb or shrub, 10 mm–2.5 m high, single or multi-stemmed, branches scabrid-pubescent, sometimes also glandular; leaves sessile or with short petiole; ovate, narrowly elliptic or lanceolate, 25–200 x 10–85 mm, 3-veined from base; capitula terminal and solitary or in few-headed lax racemes, stalks of individual capitula to 140 mm long; ray florets cream, yellow to orange, 7–17, with or without styles, ray 7–18.5 x 3–6.5 mm; in open woodland, ruderal sites, seasonal swamps, along rivers and lakes, forest margins, and wooded grassland; may be locally common. From Ethiopia through eastern Africa to South Africa.

Source. Patel (1999); Wild (1966); Hilliard (1977: 307); *F.T.E.A. Compositae* (3) (unpublished ms.); Patel & Overton (2002).

Malawi. Nyika National Park, between Viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer 1719* (PRE); Wovwe River catchment area, 2000, *Willis 162* (PRE).

Aspilia natalensis (Sond.) Wild

Wedelia natalensis Sond.

Straggling, branching, rhizomatous perennial herb, to 0.5 m high; leaves opposite, sessile or subsessile, to 120 x 30 mm; capitula solitary, up to 40 mm across the expanded rays; outer involucre herbaceous; inner involucre bracts papery; rays and disc yellow; flowering throughout the year. Widely distributed from D.R.C. and Tanzania through Zambia, Zimbabwe, and Mozambique to KwaZulu-Natal.

Source. Hilliard (1977: 306).

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

Aspilia plurisetata Schweinf. ❖

Aspilia asperifolia O.Hoffm.; *Aspilia vulgaris* N.E.Br.; *Aspilia brachyphylla* S.Moore

Perennial herb or subshrub, multi-branched, usually trailing with distal part erect, to 500 mm high; leaves (sub-) sessile, ovate or narrowly ovate, 20–50(80) x 8–20(35) mm; capitula terminal, solitary or up to 3 together; ray florets yellow or orange-yellow, 9–16, without styles, 10–15 mm long; in grassland, woodland, a pioneer of cultivation and ruderal sites, may be locally common. Uganda and Kenya southwards to South Africa.

Source. Patel (1999); *F.T.E.A. Compositae* (3) (unpublished ms.); Patel & Overton (2002).

Malawi. Nyika National Park, Jalawe Viewpoint, 10° 21' 44"S, 33° 47' 49"E, 2000, *Koekemoer 1872* (PRE); Fingira Rock, 2000, *Willis & Luhanga 241* (PRE).

Aster harveyanus Kuntze subsp. **nyikensis** W.Lippert

Perennial, 0.3–0.5 m high; leaves lanceolate, 50–100 x 7–15 mm, 3- to 5-nerved; peduncles 150–300 mm long; capitula radiate; rays 15–20 x 2–4 mm; disc florets 5–6 mm long; achenes densely hispid and glandular; pappus 6–7 mm long; in high mountain grassland and miombo. Zambia, Malawi, and Zimbabwe.

Source. Lippert (1973).

Malawi. Nyika, 1 mile from Zambia Rest House, 1967, *Pawek 1431* (SRGH).

Zambia. Nyika Plateau, 1967, *Richards 22465a* (K, M); 5 miles S.W. of Rest House, 1958, *Robson & Angus 423* (K, SRGH).

Aster tansaniensis W.Lippert ❖

Perennial with several annual shoots 0.1–0.75 m high; leaves sessile, narrowly ovate to lanceolate, 10–75 x 3–17 mm, glandular with 3–5 longitudinal veins; capitula solitary or up to 4, 8–15 mm long; ray florets 15–25, ray white to pale pink or mauve, 10–16 x 2–3 mm; inner florets yellow, 2–5 mm long; a pyrophyte in regularly burned grassland. Tanzania, D.R.C., Zambia, and Malawi.

Source. Grau & Lippert: (1980: 13); *F.T.E.A. Compositae* (2): 470 (2002).

Malawi. Nyika Plateau, Lake Kaulime, ca 2,150 m, 1958, *Robson & Angus 329* (BM, K, LISC, SRGH, PRE).

Zambia. Nyika Plateau, 1959, *Richards 10426* (K).

Athrixia rosmarinifolia (Sch.Bip.) Oliv. & Hiern var. **foliosa** (S.Moore) Kroner ❖

Perennial herb or subshrub 0.2–1.2 m high with one to several stems, stems grey-tomentose and glandular; leaves sessile, lanceolate or linear, white-tomentose beneath, araneose-puberulous and glandular above, but glabrescent; capitula 6–10 mm long, solitary or in few-headed cymes; involucre pale green with dark tips; ray florets mauve, pink or purple, 8–23, ray elliptic, 3.5–7.5 x 1.2–1.6 mm; disc florets yellow or orange-yellow, 16–94; in montane grassland. Malawi and Zimbabwe.

Source. Patel (1999); Brummitt (1973); *F.T.E.A. Compositae* (2): 456 (2002); Patel & Overton (2002).

Malawi. Nyika National Park, W. foot of Nganda 1972, *Brummitt, Munthali & Syngé 69* (K, MAL, SRGH, LISC, BR); along the road from Chelinda Camp to Chisanga Falls, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1705* (PRE).

Athrixia subsimplex Brenan

Perennial woody herb 0.3–0.5 m high, hardly branched; stems grey-tomentose, densely leafy; leaves linear, 5–40 x 1–2 mm, sparsely pubescent or glabrous above, white-tomentose beneath; capitula 8–12 mm long, solitary or in a few-headed cymes; involucre with dark tips; ray florets mauve, 14–30, ray elliptic, 6–7 x 1.8–2.5 mm; disc florets orange-yellow, 60–80; in montane grassland. Malawi and Tanzania.

Source. *F.T.E.A. Compositae* (2): 456 (2002).

Malawi. Nyika Plateau, 1946, *Brass 17311* (K, SRGH).

Berkheya bipinnatifida (Harv.) Roessler subsp. **echinopsoides** (Baker) Roessler

Berkheya echinopsoides Baker; *Stobaea bipinnatifida* Harv.;

Crocodylodes seminiveum (DC.) Kuntze

Spinescent perennial herb 0.5–3 m high; leaves 50–300 x 30–180 mm, slightly to strongly dentate, lobes extending into spines 1–10 mm long; capitula homogenous and discoid, paniculately arranged; florets numerous, corollas white, ca 10 mm long; in escarpment miombo and chipya woodland, in high altitude and submontane grassland and in dambos, often on rocky hillsides, sometimes becoming weedy. Tanzania, D.R.C., Malawi, and Swaziland.

Source. *Flora zambesiaca* 6(1): 239 (1992).

Malawi. Nyika Plateau, 1896, *Whyte 186* (K); Juniper Forest, 10° 45' 06"S, 33° 53' 15"E, 2000, *Koekemoer 1900* (PRE).

Berkheya echinacea (Harv.) O.Hoffm. ex Burt Davy subsp. **polyacantha** (Baker) Roessler

Berkheya polyacantha Baker; *Berkheya parvifolia* Baker

A perennial herb to 1.4 m high; stems winged; leaves crowded on the lower stem, sessile, 120–220 x 20–50 mm, sinuate-dentate to coarsely dentate, upper surface with brush-like spines 2–7 mm long; capitula radiate, solitary or few clustered terminally; florets yellow; rays 15 x 1.5–4 mm; disc florets yellow, ca 7 mm long; in submontane grassland, often in marshy places. Malawi, Zambia, Zimbabwe, and Tanzania.

Source. Brummitt (1973); *Flora zambesiaca* 6(1): 240 (1992).

Malawi. Nyika Plateau, 1946, *Brass 17246* (K, MO); Chosi Viewpoint, 10° 36'S, 33° 45'E, 2000, *Phiri 3535* (UZL); W. of Vitiintha Hill, 2000, *Salubeni & Mwanambo 6751* (MAL); Jalawe Viewpoint, 10° 21' 44"S, 33° 47' 49"E, 2000, *Koekemoer 1865* (PRE); Mpopoti Peak, 2000, *Willis & Luhanga 100*

(PRE).

Zambia. Nyika Plateau, Kaperekezi Road, 10° 34'S, 33° 42'E, 2000, *Phiri 3847* (UZL).

Berkheya zeyheri (Sond. & Harv.) Oliv. & Hiern subsp. **zeyheri** ❖

Crocodylodes zeyheri (Sond. & Harv.) O.Kuntze; *Stobaea zeyheri* Sond.

& Harv.; *Berkheya insignis sensu* Brenan

A tufted perennial herb 0.1–0.9 m high; leaves sessile, 30–150 x 1–13 mm, linear or lanceolate, margins spinescent-denticulate, bristles 5–20 mm long; capitula radiate, solitary, terminal; rays yellow, mostly 15–20 x 1.5–4 mm; a pyrophyte of submontane and plateau grassland, miombo and *Uapaca* woodlands, in dambos, on rocky outcrops or in shallow stony soils. Malawi, Zambia, Zimbabwe, Mozambique, South Africa, and Swaziland.

Source. Patel (1999); *Flora zambesiaca* 6(1): 244 (1992); Roessler (1975: 81).

Zambia. Nyika Plateau, within 90 m of Government Rest House, 1955, *Lees 49* (K, NDO).

No country given. 1967, *Richards 22417* (UZL).

Bidens acuticalis Sherff var. **acuticalis** ❖

Bidens paupercula Sherff; *Bidens ciliata* B.Wild.

Annual herb to 1 m high, stem simple or branched; leaves pinnate or bipinnatifid, to 130 x 60 mm, segments 3–5; capitula solitary, terminal, peduncle to 150 mm long; ray florets 5–8, yellow, 6–7 mm long, upper part paler, 5- to 6-striate; disc florets yellow; in *Brachystegia* woodland and grassland. Tanzania, D.R.C., Angola, Zambia, Mozambique, and Malawi.

Source. *Kew Bulletin* 48(3): 492 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika National Park, Chisanga Falls and Kaperekezi Gate, 2000, *Salubeni & Mwanambo 6837* (MAL); path down to Chisanga Falls, 10° 32.9'S, 33° 40.9'E, 2000, *Burrows & Burrows 6773* (PRE).

Bidens baumii (O.Hoffm.) Sherff

Coreopsis baumii O.Hoffm.; *Coreopsis scabrifolia* Sherff; *Bidens ruandensis* Sherff

Perennial herb, 0.6–1.3 m high, erect to decumbent, single-stemmed; leaves lanceolate to ovate 60–150 x 10–31 mm, simple or pinnately 3- to 7-lobed, surface hispid-ciliate, margins coarsely serrate-dentate with teeth callose; capitula terminal, solitary or few in lax cymes; ray florets yellow, 6–8, neuter, ray 15–18 x 7–8 mm; disc florets yellow, to 6 mm long; in grassland or scrub. Tanzania, D.R.C., Rwanda, Burundi, Angola, Malawi, and Zambia.

Source. *Kew Bulletin* 48(3): 460 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika National Park, without locality, 2000, *Mwanambo 522* (MAL).

Bidens biternata (Lour.) Merr. & Sherff

Bidens cylindrica Sherff.; *Bidens paupercula* Sherff.

Annual herb, up to 1.5 m high; leaves once pinnate with (3)5–9 narrowly ovate leaflets, basal pair deeply divided into two asymmetric lobes; pappus awns 3 or 4(5); flowers yellow. Flowering February to May; in forest margins, short grassland, stream- and river-banks, among rocks on mountain slopes, roadsides, and margins of cultivation. Tropical and subtropical parts of Africa, S.W. Asia, E. Asia, and Australia.

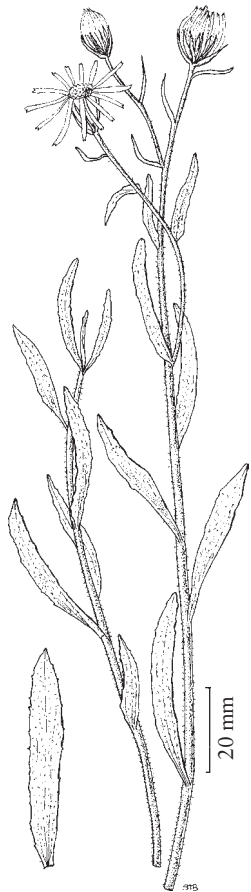
Source. Retief & Herman (1997: 295); *Kew Bulletin* 48(3): 497 (1994).

Malawi. Nyika National Park, Jalawe Viewpoint, 10° 21' 44"S, 33° 47' 49"E, 2000, *Koekemoer 1869* (PRE); Juniper Forest, near bridge, 10° 45' 06" S, 33° 53' 15" E, 2000, *Koekemoer 1887* (PRE); Fingira Rock, 2000, *Willis & Luhanga 212* (PRE).

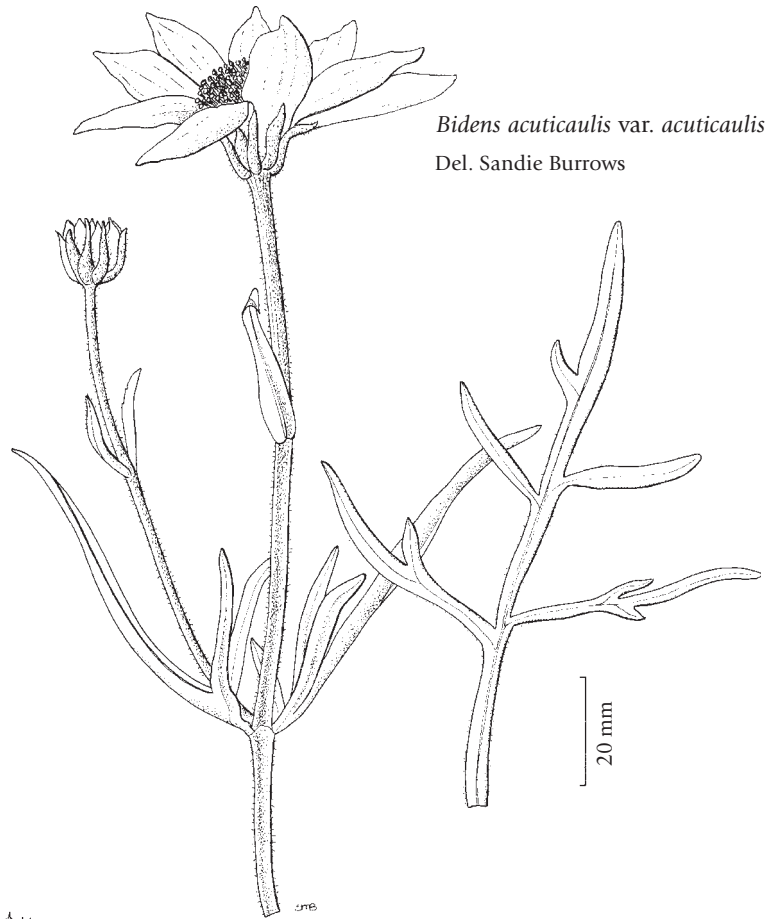
Bidens crocea Welw. ex O.Hoffm.

Bidens crocea var. *verrucifera* S.Moore

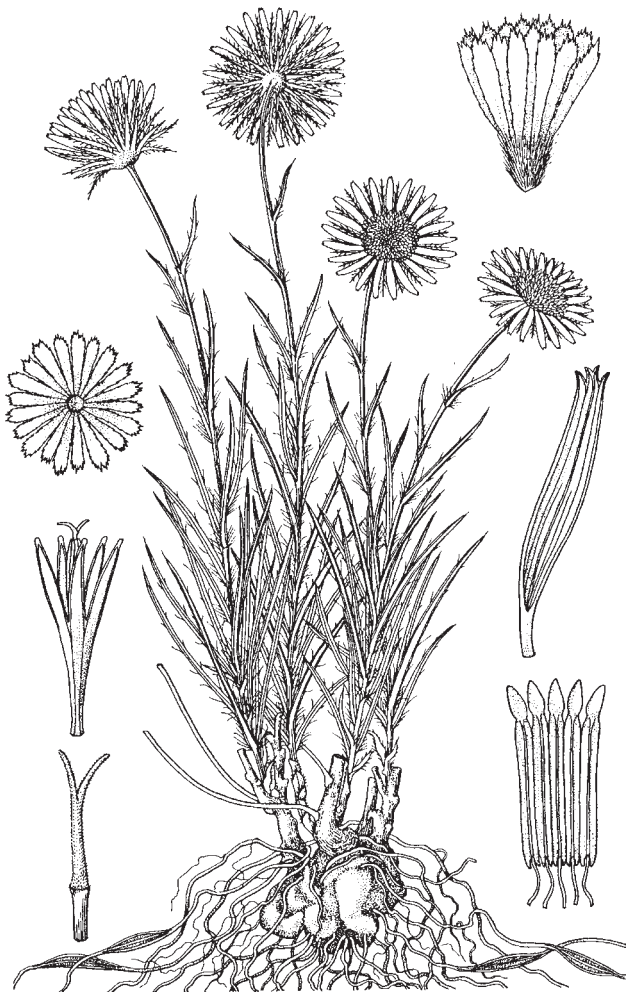
Perennial herb, up to 1 m high; stems single or several from a woody rootstock; leaves pinnatifid with 3–5 linear segments or bipinnatifid, up to 150 mm long; capitula solitary, broadly campanulate, 10–15 x 4–8 mm; ray florets golden yellow, 8, neuter; rays linear-oblong with 9 dark orange stripes, to 2.5 x 5 mm; disc florets yellow; in miombo woodland and grass-



Aster tansaniensis
Del. Sandie Burrows



Bidens acuticaulis var. *acuticaulis*
Del. Sandie Burrows



Berkheya zeyheri subsp. *zeyheri*
Del. Victoria Goaman



Athrixia rosmarinifolia var. *foliosa*
Del. Sandie Burrows

land. Tanzania, D.R.C., Angola, Malawi, and Zambia.

Source. *Kew Bulletin* 48(3): 463 (1994).

Malawi. Nyika National Park, Mwanda Mountain, 2000, *Willis 188* (PRE); hill slope N. of Mwanda Mountain, 2000, *Willis & Luhanga 179* (PRE).

Bidens diversa Sherff

Bidens filiformis Sherff

Annual herb, 0.3–0.5(1) m high; leaves pinnate to 10 mm long with a filiform rachis and 3–5 filiform segments to 50 mm long; capitula solitary, terminal, peduncle to 120 mm long; ray florets 8, yellow, 15–20 x 3–5 mm, striate; achenes black, narrowly ellipsoid, striate-sulcate and bristly, with 2 aristae 1 mm long; in woodland on rocky outcrops, gregarious elsewhere. Tanzania, Angola, Zambia, Malawi, and Mozambique.

Source. *Kew Bulletin* 48(3): 493 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika National Park, Runyina River, 10° 43'S, 33° 39'E, 2000, *Phiri 3803* (UZL).

Zambia. Nyika Plateau, Kaperekezi Road, 10° 34'S, 33° 42'E, 2000, *Phiri 3860* (UZL); Manyenjere Forest, 10° 35'S, 33° 39'E, 2000, *Phiri 4055* (UZL).

Bidens kilimandscharica (O.Hoffm.) Sherff

Coreopsis kilimandscharica O.Hoffm.

Perennial herb, to 3 m high; leaves variable, up to 150 x 100 mm, upper leaves often simple and sessile, lower leaves pinnatipartite to bipinnatisect, pubescent on both surfaces; capitula solitary, 60–80 mm wide, several in compact corymbose cymes; ray florets 8–13, neuter, golden yellow, ray up to 40 x 11–15 mm, with 12 dark orange longitudinal striae; disc florets yellow, 2 mm long; on forest margins, woodland on rocky outcrops and mountain slopes. Uganda and Kenya to Angola, Malawi, and Mozambique.

Source. *Kew Bulletin* 48(3): 451 (1994).

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

Bidens lineariloba Oliv.

Bidens lineariloba Oliv. var. *deminuta* Sherff

Annual herb, 0.6–1.5 m high, much branched; leaves irregularly 2-pinnatipartite, 40–160 x 20–90 mm, segments linear or lanceolate; capitula in lax terminal cymes, radiate, peduncle to 80 mm long; ray florets 6–8, yellow, ray 20–30 x 6–12 mm, striate; disc florets yellow or brown; on rocky grassland on mountain slopes, also in disturbed areas. Kenya, Uganda, Tanzania, D.R.C., and Burundi.

Source. Retief & Herman (1997: 295); *Kew Bulletin* 48(3): 476 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika National Park, between Viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer 1714* (PRE); Mwanda Mountain slope, 2000, *Willis 189* (PRE).

Bidens ochracea (O.Hoffm.) Sherff

Coreopsis ochracea O.Hoffm.; *Coreopsis cosmophylla* Sherff; *Coreopsis ochraceoides* Sherff

Perennial herb to 1.5 m high, multi-stemmed; leaves pale green, ovate in outline, deeply pinnatipartite with 3–7 segments, 40–180 x 20–70 mm, leaf segments 1.5–7 mm wide; capitula 1–3, peduncles to 150 mm long; ray florets orange or golden yellow, 8–9, neuter, with 10 dark orange stripes; disc florets pale cream-yellow; on stony hillsides and open tall grassland. Tanzania, Malawi, and Zambia.

Source. *Kew Bulletin* 48(3): 465 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika National Park, without locality, 2000, *Mwanyambo 521* (MAL).

***Bidens pilosa** L.

Bidens sundaica Blume; *Bidens leucantha* (L.) Willd.

Annual herb, up to 1.5 m high; leaves trifoliolate or pinnately 5-foliolate, leaflets narrowly ovate to ovate-oblong, margins crenate-serrate; pappus awns 2 or 3; flowers with rays creamy white or absent, disc yellow; roadside weed and noxious weed of cultivation. In most tropical and subtropical regions of the world; also extending into some temperate areas.

Source. *Kew Bulletin* 48(3): 500 (1994); Patel & Overton (2002).

Malawi. Nyika National Park, Juniper Forest next to the bridge, 10° 45' 06" S, 33° 53' 15" E, 2000, *Koekemoer 1886* (PRE).

Bidens pinnatipartita (O.Hoffm.) Wild

Coreopsis pinnatipartita O.Hoffm.; *Coreopsis whytei* S.Moore

Robust branching perennial up to 3 m high; leaves petiolate, petiole up to 50 mm long, lamina up to 190 x 190 mm, pinnatipartite; capitula (1)–3(5) crowded together on peduncles up to 30 mm long, up to 60 x 10 mm at anthesis; ray florets yellow, neuter, 6–12, ligule 25–30 x 5–7 mm; disc florets orange-yellow, to 8 mm long; in montane grassland with scattered shrubs, often along forest margins. Angola, Zambia, Malawi, Tanzania, and Mozambique.

Source. Dowsett-Lemaire (1985); Patel (1999); Wild (1967: 19); *Kew Bulletin* 48(3): 449 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika Plateau, 1946, *Brass 17297* (K, SRGH).

Zambia. Nyika Plateau, 1952, *White 2747* (K).

Bidens schimperi Sch.Bip.

Bidens schimperi Sch.Bip. var. *leptocera* Sherff; *Bidens schimperi* Sch.Bip. var. *punctata* Sherff; *Bidens schimperi* Sch.Bip. var. *brachycera* Sherff; *Bidens schimperi* Sch.Bip. var. *leiocera* Sherff

Annual herb to 1.5 m high; leaves broadly ovate in outline, petiolate, lamina 25–200(300) x 15–100(150) mm long, deeply 2- to 3-pinnatisect, lobes ovate; capitula erect or nodding, in lax corymbose cymes; ray florets 6–8, yellow or occasionally orange, ligule 6–20 mm long, 2–3-dentate or entire, with ca 10 darker longitudinal veins; in woodland and grassland; at times a ruderal weed of arable land. Ethiopia and Sudan southwards to Angola, Namibia, and South Africa.

Source. Wild (1967: 23); *Kew Bulletin* 48(3): 497 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika Plateau, 1903, *McClounie 133* (K).

Bidens stephia (Steetz) Sherff

Coreopsis stephia Steetz

Annual herb 0.7–2 m high; leaves deltoid in outline, incised to bi- or tripinnatisect or pinnatifid, 25–350 x 20–260 mm, petiole absent or to 90 mm long; capitula terminal, solitary or in lax cymes; ray florets yellow or orange, 8–13, ray 25–35 x 5–12 mm, striate; in grassland, floodplain vegetation, bushed grassland, and woodland; weed of cultivation and roadsides. Cameroon and C.A.R. to Angola, Zambia, Malawi, Mozambique, and Zimbabwe.

Source. *Kew Bulletin* 48(3): 449 (1994); *F.T.E.A. Compositae* (3) (unpublished ms.); Patel & Overton (2002).

Malawi. Nyika National Park, Jalawe Viewpoint, 2000, *Thera 3106* (MAL); E. of Thazima Gate, 2000, 10° 48'S, 33° 55'E, *Phiri 3620* (UZL); between viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer 1713* (PRE); Fingira Rock, 2000, *Willis & Luhanga 242* (PRE).

Blumea axillaris (Lam.) DC. ✦

Conyza axillaris Lam.; *Erigeron molle* D.Don; *Blumea mollis* (D.Don) Merrill

Annual or occasionally perennial herb, 0.2–0.9 m high; whole plant viscid, sticky, and aromatic; leaves elliptic to obovate, 20–100(200) x 6–60 mm, margins dentate; capitula 4–8 mm long, in dense narrow panicles; florets pink, mauve or purple; in swampy sites, river-banks, and roadsides. Widespread in tropical and southern Africa; also on the Indian Ocean islands, tropical Asia, and Australia.

Source. Patel (1999); Brummitt (1973); *F.T.E.A. Compositae* (2): 319 (2002).

Malawi. Nyika National Park, by lower Mondwe River, 1972, *Brummitt & Synge 226* (K).

Bothriocline inyangana N.E.Br.

Erlangea rogersii S.Moore; *Erlangea inyangana* (N.E.Br.) Burtt; *Bothriocline longipes* sensu Wild & G.V.Pope

Erect bushy perennial herb or suffrutex 0.6–3 m high; leaves opposite, sometimes 3-whorled, 40–200 x 15–80 mm, elliptic to lanceolate; capitula small, numerous in corymbiform cymes; corollas mauve or purplish; in submontane, tall grassland, evergreen forest margins, stream banks at high



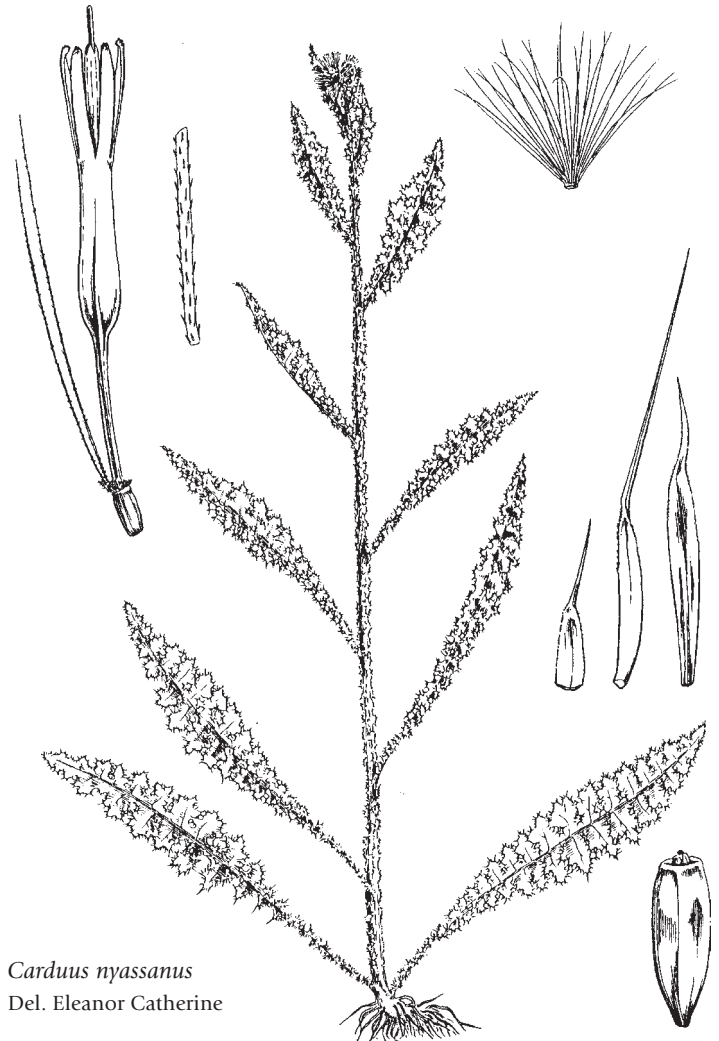
Blumea axillaris
Del. Sandie Burrows



Bothriocline longipes
Del. Eleanor Catherine



Brachythrix glomerata
Del. Eleanor Catherine



Carduus nyassanus
Del. Eleanor Catherine

altitudes, and in long grass in high-rainfall wooded grassland. Malawi, Zimbabwe, Mozambique, Tanzania, and D.R.C.

Source. Patel (1999); *Flora zambesiaca* 6(1): 168 (1992); Patel & Overton (2002).

Zambia. Nyika National Park, ca 0.5 km N.W. of Zambian Government Rest House, 1986, *Philcox, Pope & Chisumpa 9985* (BR, K, NDO).

Bothriocline laxa N.E.Br.

Erlangea laxa (N.E.Br.) S.Moore

Erect annual herb, 0.1–1.2 m high; leaves opposite, uppermost alternate, petiolate, lamina 30–130 x 10–55 mm, elliptic; capitula few to numerous, lax corymbiform cymes; corollas mauve or purplish; in miombo woodland, wooded grassland, submontane grassland, often as a weed of disturbed or cultivated ground and at roadsides. Zimbabwe, Malawi, Mozambique, Tanzania, D.R.C., Angola, and South Africa.

Source. *Flora zambesiaca* 6(1): 164 (1992).

Zambia. Nyika National Park, above Zambian Government Rest House, 1986, *Philcox, Pope & Chisumpa 10010* (BR, K, NDO, SRGH).

Bothriocline longipes (Oliv. & Hiern) N.E.Br. ✨

Bothriocline eupatorioides (Hutch. & Burt) Wild & G.V.Pope;

Bothriocline tomentosa (Oliv. & Hiern) Wild & G.V.Pope

Erect bushy suffrutex, with stems 1–2.5 m high from a woody rootstock; leaves opposite, petiole ca 40 mm long, lamina mostly 40–200 x 15–90 mm, lanceolate; capitula small, numerous, laxly corymbiform cymose; corollas mauve or purplish; in submontane tall grassland, usually on rocky outcrops and in evergreen forest margins at higher altitudes, in long grass in high-rainfall wooded grassland, often in riverine vegetation at lower altitudes. Malawi, Sudan, Rwanda, Burundi, Uganda, Kenya, Tanzania, D.R.C., and Angola.

Source. Patel (1999); Dowsett-Lemaire (1985); *Flora zambesiaca* 6(1): 167 (1992); Patel & Overton (2002).

Malawi. Nyika National Park, between Chelinda Bridge and Dembo River Crossing, 10° 32' 38"S, 33° 50' 33"E, 2000, *Koekemoer 1742* (PRE).

Zambia. Nyika National Park, ca 0.5 km S. of Zambian Government Rest House, 2,260 m, 1986, *Philcox, Pope & Chisumpa 9958* (BR, K, NDO, SRGH).

Bothriocline pectinata (O.Hoffm.) Wild & G.V.Pope

Erlangea pectinata O.Hoffm.

Erect soft perennial herb to 2 m high, stems leafy; leaves alternate, subsessile, mostly 80–260 x 12–60 mm, narrowly elliptic-oblancoate; capitula small, numerous, becoming laxly arranged on divaricate branches; corollas pale lilac fading whitish; in submontane evergreen forest understorey, in clearings, and on forest margins. Malawi and Tanzania.

Source. Dowsett-Lemaire (1985); Patel (1999); *Flora zambesiaca* 6(1): 169 (1992); Patel & Overton (2002).

Zambia. Nyika Plateau, without locality, 1966, *Fanshawe 9749* (K, M, NDO, SRGH).

Bothriocline ripensis (Hutch.) Wild & G.V.Pope

Volkensia ripensis Hutch.

Lax perennial herb to 1.5 m high or stems scrambling to 5 m long; leaves alternate, petioles to 10 mm long, lamina mostly 40–170 x 10–50 mm, narrowly to broadly cuneate; capitula small, numerous, laxly corymbiform cymose; corollas purplish mauve fading white; in swamp forest, gully forest, and submontane evergreen forest, usually beside streams. Malawi and Zambia; not known outside the *Flora zambesiaca* area.

Source. Dowsett-Lemaire (1985); Patel (1999); *Flora zambesiaca* 6(1): 169 (1992).

Malawi. Nyika National Park, Lonyina, 2001, without collecting details (Patel & Overton 2002: 31).

Bothriocline trifoliata (De Wild. & Muschl.) Wild & G.V.Pope

Erlangea trifoliata De Wild & Muschl.; *Erlangea mooreana* Alston;

Bothriocline mooreana (Alston) Wild & G.V.Pope

Erect perennial herb with annual stems 0.2–0.75(1) m high from small woody rootstock; leaves subsessile, patent, in whorls of three, 20–50 x 5–

20 mm; capitula small, few to numerous, corymbiformly cymose; corollas purple; pappus of few very caducous barbellate setae 1–2 mm long; in submontane short grassland, *Brachystegia* and *Uapaca* woodland, and high-rainfall miombo. Malawi, Zambia, Tanzania, D.R.C., and Angola.

Source. Patel (1999); *Flora zambesiaca* 6(1): 164 (1992); Patel & Overton (2002).

Malawi. Nyika Plateau, Chisanga Falls path from Nthalire Road, ca 1,900 m, 1982, *Brummitt, Polhill & Banda 16180* (BR, C, K, LISC, MAL, MO, SRGH, WAG); *ibid.* 2000, *Koekemoer 1715* (PRE); Fingira Rock, 2000, *Willis & Luhanga 238* (PRE).

Brachythrix glomerata (Mattf.) C.Jeffrey ✨

Ageratinastrum glomeratum Mattf.; *Brachythrix brevipapposa* subsp.

brevipapposa Wild & G.V.Pope

Erect perennial suffrutescent herb with annual stems, up to 1.7 m high; leaves subsessile, 50–140 x 20–70 mm, broadly elliptic to narrowly oblong-elliptic or lanceolate; capitula numerous, aggregated into corymbiform clusters; florets 40–120 per capitulum; corollas purple; in submontane grassland and with tall grasses at lower altitudes, in *Brachystegia* woodland, on hillsides, often on termitaria. Zambia, Mozambique, Tanzania, and D.R.C.

Source. *Flora zambesiaca* 6(1): 177 (1992); Patel & Overton (2002).

Malawi. Nyika National Park, Runyina River Bridge, 2000, *Willis 202* (PRE).

Brachythrix malawiensis (Wild & G.V.Pope) G.V.Pope

Brachythrix brevipapposa subsp. *malawiensis* Wild & G.V.Pope

Similar to *B. glomerata*, but the leaves narrowly oblong-elliptic, densely grey-felted on lower surface; phyllaries linear-lanceolate, subequal or outer phyllaries 5–7 mm long, mostly more than half as long as the involucre, their apices finely tapering, subulate; in submontane grassland and woodland. Known only from Nyika Plateau.

Source. Wild & Pope (1978: 28); *Flora zambesiaca* 6(1): 179 (1992).

Malawi. About 50 km from Rumphu on Chisenga Road, *Richards 14373* (K, holo., SRGH); Nyika Plateau, ca 6 km downstream from Lake Kaulime, 2,133 m, 1968, *Simon, Williamson & Ball 1754* (K, M, SRGH).

Brachythrix pawekiae Wild & G.V.Pope

Erect perennial herb 0.2–0.4 m high; stems purple; leaves mostly 30–90 x 4–13 mm, decreasing in size to stem apex and base, narrowly oblong-elliptic; capitula few to many in lax capitulum clusters; florets ca 70 per capitulum; corollas purple; in submontane short grassland. Known only from Nyika Plateau, but apparently fairly common there.

Source. Patel (1999); *Flora zambesiaca* 6(1): 179 (1992); Wild & Pope (1978: 29).

Malawi. Nyika Plateau, Chelinda Bridge, *Pawek 3385* (K, holo.); ca 2 km N. of Chosi Peak, 1986, *Philcox, Pope & Chisumpa 10018* (BR, GA, LISC, MAL, MO, NDO, SRGH); Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1683* (PRE); Mpopoti Peak, 2000, *Willis & Luhanga 75* (PRE); Nthakati Peak, 2000, *Willis, Patel & Luhanga 136* (PRE).

Brachythrix sonchoides Wild & G.V.Pope

Erect perennial suffrutescent herb with annual stems to 1.3 m high; leaves sessile, mostly 40–90 x 7–30 mm; capitula numerous, aggregate in dense subglobose; florets ca 20 per capitulum; corollas purple; in submontane grassland, evergreen forest margins, and stream bank vegetation. Known only from the Nyika Plateau.

Source. Patel (1999); *Flora zambesiaca* 6(1): 179 (1992); Wild & Pope (1978: 29); Patel & Overton (2002).

Malawi. Nyika Plateau, Chelinda Bridge, 1967, *Hilliard & Burt 4398* (E, holo., K); *ibid.*, 1966, *Lloyd Binns 230* (SRGH); between Chelinda and Dembo Rivers, ca 2,300 m, 1970, *Brummitt 10661* (FHO, K).

Zambia. Nyika Plateau, Kangampande Mountain (Chowo Forest), 2,133 m, 1952, *White 2756* (FHO, K); without locality, 1962, *Fanshawe 7320* (K, NDO).

Brachythrix stolzii (S.Moore) Wild & G.V.Pope

Muschleria stolzii S.Moore

Closely related to *B. pawekiae*, but distinguished by its subscape habit with the largest leaves clustered on the lower stem, and by the outer pappus of free membranous scales. Reported in *Flora zambesiaca* as confined to

Tanzania only; this record should therefore be regarded with caution since we have no confirmed specimen available.

Source. Patel (1999); *Flora zambesiaca* 6(1): 180 (1992).

Malawi. Nyika National Park, Lonyina, 2001, without collecting details (Patel & Overton 2002: 31).

Carduus nyassanus (S.Moore) R.E.Fr. ❖

Carduus nyassanus (S.Moore) R.E.Fr. var. *ruandensis* R.E.Fr.; *Carduus leptacanthus* Fresen. var. *steudneri* Engl.; *Carduus leptacanthus* Fresen. var. *nyassanus* S.Moore

A spinose perennial herb to 1.5 m high; stems usually simple, densely leafy below, winged; basal leaves 100–330(500) x 20–65 mm, narrowly oblanceolate in outline, pinnately divided, margins coarsely dentate with teeth and apices strongly spine-tipped; capitula many, densely aggregated terminally; corollas white, reddish tinged or mauve, 10–13 mm long; on stream-sides and moist localities in montane grassland; flowering August–January. Central Africa northwards to Sudan, Nigeria, and Cameroon.

Source. UZL; Patel (1999); *Flora zambesiaca* 6(1): 51 (1992).

Malawi. Nyika Plateau, near Chelinda chalets, 1960, *Hilliard & Burt* 4449 (K, NDO, SRGH); at 2nd trout dam on Chelinda Bridge Road, 10° 35' 46''S, 33° 48' 25''E, 2000, *Koekemoer* 1797 (PRE); tributary of Wovwe River, 2000, *Willis* 159 (PRE).

Zambia. Nyika Plateau, without locality, 1962, *Fanshawe* 7316 (K, NDO, SRGH).

Chrysanthemoides monilifera (L.) Nordl. subsp. **septentrionalis** Nordl. ❖

Osteospermum moniliferum L.

Shrub 1–3 m high, densely branched, branches hairy when young, but usually soon glabrescent; leaves obovate to elliptic, up to 60 mm long and 30 mm wide, denticulate with teeth to 1 mm long; capitula 5–7 mm long, solitary or few together; ray florets 7–10, 9–13 x 2–4 mm, yellow; disc florets about 20, 5–6 mm long, yellow; drupes reddish purple to black, ellipsoid-obovoid, 5–7 x 2.5–4 mm; hillsides, grassland, montane forest margins. Kenya, Tanzania, Malawi, Mozambique, Zimbabwe, and South Africa.

Source. Patel & Overton (2002); *F.T.E.A. Compositae* (2): 535 (2002).

Malawi. Nyika National Park, access road near Juniper Forest, 2000, *Burrows & Burrows* 6916 (MAL, PRE, UZL).

Cineraria deltoidea Sond. ❖

Cineraria grandiflora Vatke; *Cineraria buchananii* S.Moore

Perennial herb, 0.1–3 m high, erect or more usually scandent or trailing; leaves deltoid in outline, 10–70 x 10–93 mm, base subtruncate to deeply cordate or emarginate; capitula often in copious terminal cymes; ray florets 4–14, yellow, rays 4–14 x 1.5–3.5 mm; achenes dark-coloured, 2–3.5 mm long, outer compressed and slightly winged, inner 3-angled, shortly ciliate or glabrous; pappus 3–6 mm long; on forest margins; flowering in June. Ethiopia and Sudan southwards to South Africa.

Source. Hilliard (1977: 379); *F.T.E.A. Compositae* (3) (unpublished ms.).

Malawi. Nyika National Park, Southern Circular route at Chelinda bridge, 10° 40' 15''S, 33° 51' 21''E, 2000, *Koekemoer* 1778 (PRE); *ibid.*, 2000, *Koekemoer* 1807 (PRE); road to Domwe, 2000, *Winter* 4088 (PRE).

Cirsium buchwaldii O.Hoffm. ❖

thistle

Robust spiny, stiffly erect, rhizomatous perennial up to 2 m; sparingly branched above; capitula 3–10 in loose apical arrangement, ca 13–20 mm long, discoid; florets white to pinkish blue; basal leaves and rhizomes seldom represented on herbarium specimens; common in marshy situations in montane grassland. Malawi, Tanzania, Uganda, Rwanda, Kenya, and Sudan.

Source. Patel (1999); Brummitt (1973); *Flora zambesiaca* 6(1): 51 (1992).

Malawi. Nyika National Park, E. foot of Nganda, 1972, *Brummitt & Synge* 110 (K, MAL, SRGH); below Sangule Kopje, 7 km S.W. of Chelinda Camp, 2,255 m, 1970, *Brummitt* 10770 (K, SRGH); Luselo River, 2000, *Salubeni & Mwanyambo* 6803 (MAL).

Conyza aegyptiaca (L.) Aiton

Erigeron aegyptiacus L.; *Conyza transvaalensis* Bremek.

Annual or biennial herb 0.3–1.5 m high, slightly viscid and aromatic; leaves mostly cauline, sessile, lanceolate to spatulate, 20–120 x 5–50 mm, cut to midrib in at least lower half; capitula 5–10 mm long in rather lax leafy corymbs or panicles, densely hairy and glandular; florets pale yellow or cream, marginal florets >100, tube 1.5–2 mm long; central florets few, tube 2.2–3 mm; a weed of cultivation and gardens, on margins of forests and bush clumps. Widespread in Africa, also in tropical Asia and Australia.

Source. Patel (1999); Retief & Herman (1997: 300); Wild (1975: 51); *F.T.E.A. Compositae* (2): 496 (2002).

Malawi. Nyika Plateau, Chelinda Dam, 1967, *Hilliard & Burt* 4444 (E, K); between Chelinda Bridge and Dembo River crossing, 10° 32' 09''S, 33° 51' 17''E, 2000, *Koekemoer* 1753 (PRE).

Zambia. Nyika, without locality, 1962, *Fanshawe* 7251 (K, M).

***Conyza albida** Willd. ❖

Erigeron sumatrensis Retz.; *Erigeron floribundus* (Kunth) Sch.Bip.;

Conyza floribunda Kunth; *Conyza sumatrensis* (Retz.) E.Walker

The name *C. albida* is recognized in PRE (following Danin, *South African Journal of Botany* 56: 412–413 (1990), and Guedes and Jovet, *Taxon* 24: 393–394 (1975). However, the name is not recognized in *F.T.E.A. Compositae* Part 2 although all the above synonyms are treated as synonyms of *C. bonariensis*. *C. albida* is regarded as intermediate between *C. bonariensis* and *C. canadensis*. It is an annual or biennial herb to 0.2–(0.3) m high; leaves lanceolate to oblong-ovate, with long and short hairs; flowers tubular; receptacle alveolate. It is a common, widespread weed along roadsides and in disturbed areas. Although this species has not yet been recorded for Malawi, the voucher specimen best matches the concept of *C. albida* in PRE.

Source. Danin (1990).

Malawi. Nyika Plateau, Juniper Forest Reserve in disturbed area of car park, 10° 45.05'S, 33° 53.12'E, 2000, *Burrows & Burrows* 6927 (PRE).

***Conyza bonariensis** (L.) Cronquist

Erigeron bonariensis L.; *Erigeron sumatrensis* Retz.; *Conyza floribunda* Kunth; *Erigeron floribundus* (Kunth) Sch.Bip.; *Conyza sumatrensis* (Retz.) E.Walker; *Conyza sumatrensis* (Retz.) E.Walker var. *floribunda* (Kunth) J.B.Marshall

Annual herb to 0.4–1.5 m high; leaves pale grey-green, sessile, linear to narrowly lanceolate, 25–150 x 2–30 mm; capitula 4–8 mm long, grouped in terminal lax panicles of 10 or more cymes; marginal florets whitish or cream with pink or purple tips, 60 to several hundred, ray erect, 0.4–0.6 mm long; central florets white to yellow, tube 2.8–3.5 mm long; in grasslands, roadsides, disturbed areas or fallow land. Worldwide weed in the tropics.

Source. Wild (1975: 43); *F.T.E.A. Compositae* (2): 506 (2002).

Malawi. Nyika National Park, Southern Circular Route to Chelinda Bridge, 10° 37' 17''S, 33° 48' 15''E, 2000, *Koekemoer* 1799 (PRE).

Conyza limosa O.Hoffm.

Erigeron mildbraedii Muschl.; *Conyza mildbraedii* (Muschl.) Robyns

Erect herb 0.3–1.2 m high; basal leaves elliptic to oblanceolate, 120–450 x 15–80 mm, pseudopetiole 60–140 mm long; cauline leaves lanceolate to panduriform, 15–120 x 5–25 mm, pseudopetiole to 60 mm long; capitula 6–10 mm long, few together in cymes which unite in a lax corymb; in open grassland, valleys, swampy areas, and in cultivated land. Kenya westwards to Nigeria and southwards to Angola and Zimbabwe.

Source. Patel (1999); *F.T.E.A. Compositae* (2): 508 (2002).

Malawi. Nyika National Park, 5 km S. of Chelinda, 1983, *De Kruif* 1324 (PRE); Domwe, 2000, *Winter* 4101 (PRE).

Zambia. Nyika Plateau, 1959, *Richards* 10427 (K, LISC).

Conyza pyrrophappa Sch.Bip. ex A.Rich.

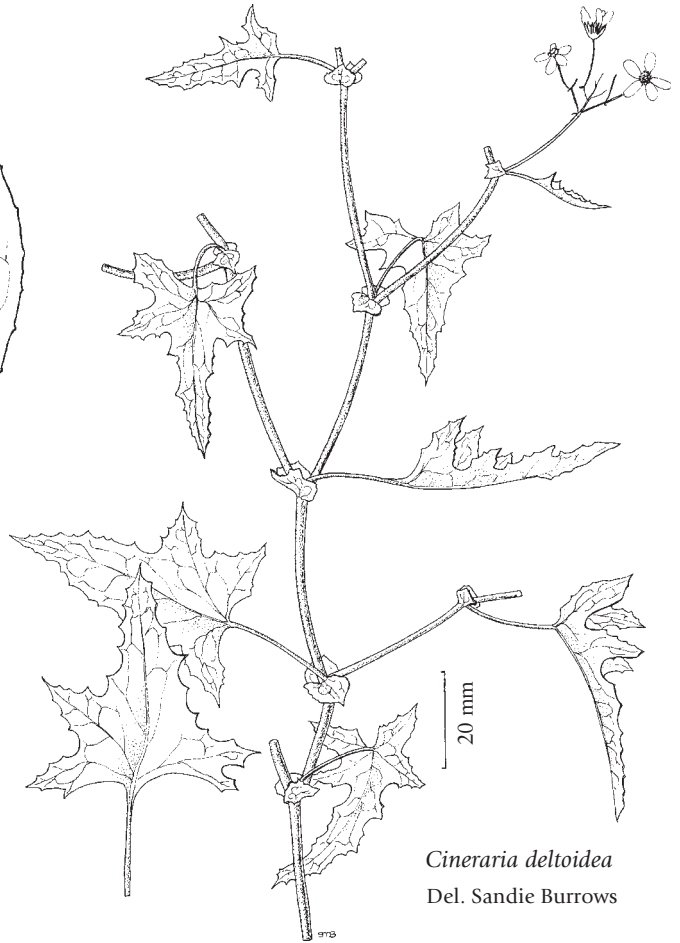
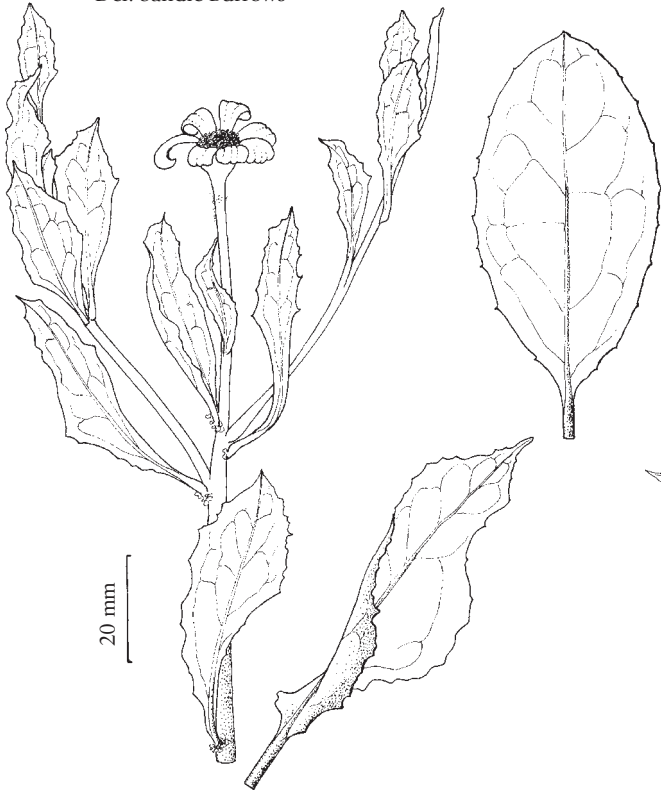
Erigeron pyrrophappus (A.Rich.) Sch.Bip.; *Pluchea crenata* Quezel;

Microglossa oblongifolia O.Hoffm; *Psiadia hendersoniana* S.Moore

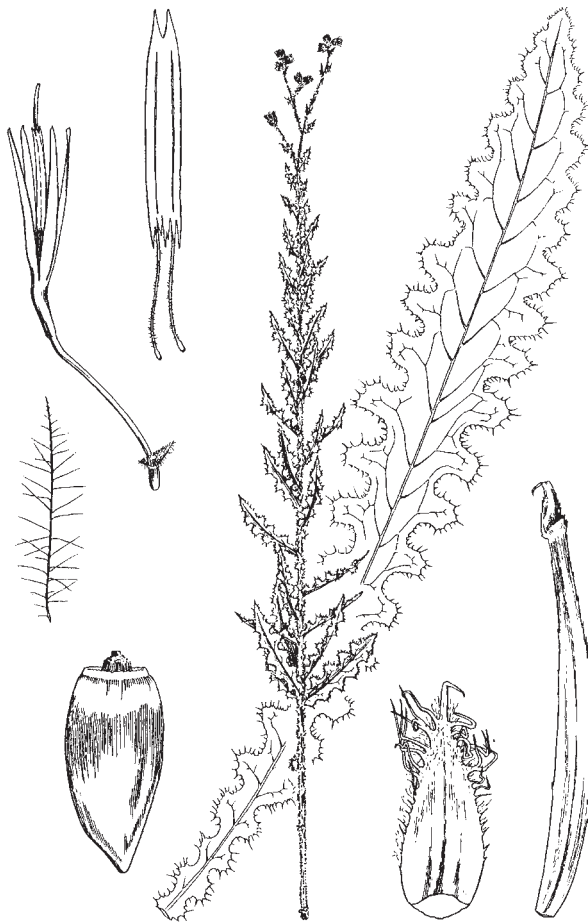
Coarse, erect aromatic perennial herb or subshrub to 2 m high, densely hairy, rarely somewhat scabrid; leaves sessile or pseudopetiolate, elliptical or lanceolate, 20–90 x 3–30 mm; inflorescences in terminal clusters 40–190(–230) mm wide; florets sweet-scented; marginal florets 30–40, pale yellow or white, ray linear to narrowly elliptic, 0.6–3.5 mm long; disc florets yellow, 5–17; a variable and widespread species of grassland and wood-

Chrysanthemoides monilifera subsp. *septentrionalis*

Del. Sandie Burrows



Cineraria deltoidea
Del. Sandie Burrows



Cirsium buchwaldii
Del. Eleanor Catherine



Conyza albida
Del. Sandie Burrows

land in higher rainfall areas, often in moist localities. From Nigeria to Sudan and Egypt, and southwards to Angola, Zambia, and Malawi.

Source. Wild (1975: 47); *F.T.E.A.* Compositae (2): 499 (2002).

Malawi. Nyika Plateau, 1903, *Henderson* s.n. (BM).

Conyza steudelii Sch.Bip. ex A.Rich.

Erigeron steudelii (A.Rich.) Sch.Bip.; *Conyza volkensii* O.Hoffm.;

Marsea celebris S.Moore

Annual or biennial herb, 0.3–2 m high, stems erect or scandent, pubescent and glandular; leaves pale green, spatulate, 15–140 x 5–60 mm, with a winged pseudopetiole; capitula 3–7 mm long, up to 15 together to form a cymose panicle; florets whitish, cream or pale yellow; marginal florets >100, the tube 0.7–1.5 mm long; central florets 6–9, tube 2.1–2.7 mm long; a weed of cultivation, also in grassland, woodland, and forest margins. Yemen, Ethiopia, and Sudan to Cameroon, Zambia, and Malawi.

Source. *F.T.E.A.* Compositae (2): 495 (2002).

Zambia. Nyika, without locality, 1962, *Fanshawe 7281* (K).

Conyza stricta Willd.

Conyza macrorrhiza A.Rich.; *Conyza vatkeana* Oliv. & Hiern; *Conyza stricta* Willd. var. *pinnatifida* (D.Don) Kitam

Erect annual or short-lived perennial herb, 0.3–1.1 m high; leaves oblanceolate to spatulate, 10–50 x 2–15 mm, scabrid and glandular on both surfaces; inflorescence of subglobose dense cymes ca 10–30 mm diameter; capitula 2–4 mm long; florets yellow; marginal florets 46–60; central florets 2–8, tube 1.4–2 mm long; a variable weed in montane grassland, often in rocky sites, a pioneer on roadsides and in disturbed land. Throughout tropical Africa from Somalia to Mozambique, also in Madagascar, India, Nepal, Arabia, and China.

Source. Patel (1999); Wild (1975: 41); UZL; *F.T.E.A.* Compositae (2): 500 (2002).

Malawi. Nyika Plateau, Chelinda Bridge, 1977, *Pawek 13187* (PRE); Southern Circular Route to Chelinda Bridge, 10° 37' 17"S, 33° 48' 15"E, 2000, *Koekemoer 1800* (PRE).

Conyza subscaposa O.Hoffm.

Herb from a perennial rootstock with a basal leaf rosette and a single stem with 1–3 cauline leaves; basal leaves shiny, ovate to slightly spatulate, 30–260 x 8–50 mm; capitula 7–12 mm long, several together in dense cymes; florets pale yellow, marginal florets many; central florets >20, tube 3.2–4 mm long; high mountain grassland, usually on rocky sites. Ethiopia to Nigeria, Cameroon, Angola, Mozambique, and Zimbabwe.

Source. Patel (1999); *F.T.E.A.* Compositae (2): 510 (2002).

Malawi. Nyika Plateau, on road 10 km from Kasaramba Viewpoint, *Philippia-Kotschya* shrub-covered hillside, 2,440 m, 1970, *Brummitt 11877* (PRE).

Conyza tigrensensis Oliv. & Hiern

Conyza variegata Sch.Bip. var. *pratensis* Vatke; *Conyza variegata* Sch.Bip. var. *silvestris* Vatke

Erect perennial herb 0.3–1.3 m high, stems 1–3 from the rootstock, hairy; leaves sessile, spatulate to narrowly ovate, 20–150 x 6–35 mm, sparsely hispid on both surfaces; inflorescence of fairly dense cymes, terminal or axile in the upper bracts, cymes 15–40 mm diameter, composed of many capitula; capitula broadly funnel-shaped, 5–7 mm long; florets cream or yellow, marginal florets many; in montane grassland, forest margins, roadsides, and abandoned land. Ethiopia and Kenya to Zambia and Malawi.

Source. Patel (1999); Wild (1975: 59); *F.T.E.A.* Compositae (2): 497 (2002).

Malawi. Nyika Plateau, Kasambara, 1967, *Salubeni 725* (K, M, SRGH); Southern Circular Route to Chelinda Bridge, 10° 37' 17"S, 33° 48' 15"E, 2000, *Koekemoer 1798* (PRE).

Zambia. Nyika, without locality, 1962, *Fanshawe 7315* (K, SRGH).

Conyza welwitschii (S.Moore) Wild

Nidorella welwitschii S.Moore

Perennial herb 0.4–2 m high; leaves sessile, linear to lanceolate, 8–50 x 1–14 mm, arachnoid-pubescent; capitula 4–6 mm long, several together in lax cymes, which unite into a terminal corymb; marginal ray florets yellow

to yellowish green, 40–42, tube 1.2–2 mm long, ray 22–3.3 x 0.5–0.7 mm; central florets yellow, 10–15, tube 2.3–2.8 mm; common in swampy and submontane grassland. Tanzania, D.R.C., Angola, Zambia, Malawi, Mozambique, and Zimbabwe.

Source. Patel (1999); Wild (1975: 45); *F.T.E.A.* Compositae (2): 504 (2002).

Malawi. Nyika Plateau, 1967, *Hilliard & Burt 4395* (E, MO); Southern Circular Route at Chelinda Bridge, 10° 40' 15"S, 33° 51' 21"E, 2000, *Koekemoer 1776* (PRE).

Zambia. Nyika, without locality, *Fanshawe 8349* (NDO, SRGH).

Crassocephalum crepidioides (Benth.) S.Moore

Gynura crepidioides Benth.; *Crassocephalum diversifolium* Hiern

Annual erect herb up to 1.2 m high; leaves sessile, obovate, broadly elliptic, rhombic or ovate, entire or with 1–8 lobes at base, 50–260 x 20–100 mm, margins sinuate-serrate; capitula few to numerous in dense or lax terminal corymbs, discoid, drooping at anthesis; florets orange-red or brick-red, corolla 7–12 mm long; on forest margins, moist sites along rivers and lakes, a common weed of disturbed places and cultivation. W. Africa, Ethiopia and S. to South Africa; naturalised in large parts of tropical Asia and the Pacific.

Source. Retief & Herman (1997: 302); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, South Circular Route, 10° 39' 54"S, 33° 45' 06"E, 2000, *Koekemoer 1839* (PRE).

Crassocephalum montuosum (S.Moore) Milne-Redh. ❖

Senecio montuosus S.Moore; *Crassocephalum afromontanum* R.E.Fr.

Annual or short-lived perennial herb or soft-wooded shrub, erect or sometimes semi-scandent, 0.2–2.4 m high; leaves sessile, ovate, lanceolate, elliptic or obovate, unlobed or 2–8-lobed, 55–410 x 15–220 mm; capitula numerous in congested terminal corymbs, discoid; florets yellow or sometimes orange, corolla 5.5–9.5 mm long; achenes 1.7–2.5 mm long, ribbed, sparsely hairy; pappus 5–10 mm long; in moist and evergreen forest margins. From Nigeria to Ethiopia and S. to Angola and Zimbabwe; also in Madagascar.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Crassocephalum picridifolium (DC.) S.Moore

Senecio picridifolius DC.; *Senecio acutidentatus* A.Rich.; *Senecio*

papaverifolius A.Rich.; *Gynura picridifolia* (DC.) Burt Davy

Perennial herb 0.3–1.2 m high or scrambling; leaves narrowly to broadly lanceolate, sessile or cuneate to attenuate into a usually auriculate petioid base, margins coarsely toothed; capitula 1–5, terminal, lax, discoid; flowers bright golden-yellow or orange, corolla 7.2–11.5 mm long; in marshy places, swamps or swampy grassland, may be locally common or even mat-forming. Widespread throughout tropical Africa.

Source. Mill (1979); Retief & Herman (1997: 302); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, Kaulime River N. of Lake Kaulime, 2000, *Willis & Luhanga 123* (PRE).

Crassocephalum rubens (Jacq.) S.Moore var. *rubens*

Senecio rubens Jacq.; *Senecio cernuus* L.f.; *Gynura cernua* (L.f.) Benth.;

Gynura rubens (Jacq.) Muschl.

Annual herb 0.2–1.5 m high, erect; leaves often narrowly and deeply 2- to 8-lobed; capitula 1–4, broadly cylindrical, 9.5–13 mm long; disc florets blue, purple, mauve, magenta, pink or red; in grassland or swampy to muddy sites, usually in disturbed soil; a weed in disturbed areas. Widespread in the warmer parts of Africa from W. Africa to Ethiopia and South Africa (KwaZulu-Natal); also on Madagascar and Réunion.

Source. Hilliard (1977); *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Crassocephalum rubens (Jacq.) S.Moore var. *sarcobasis*

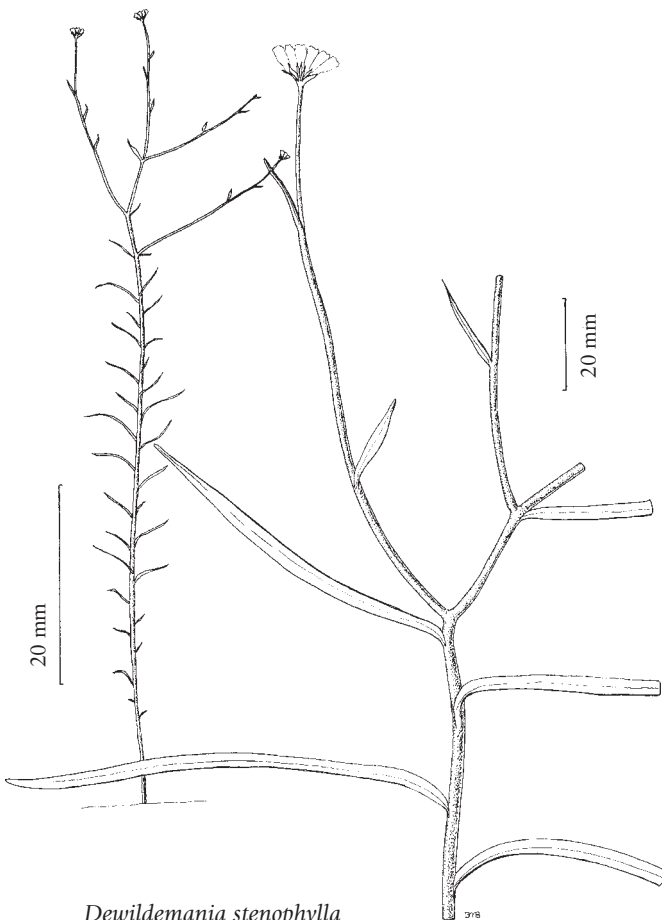
(DC.) C.Jeffrey & Beentje

Gynura sarcobasis DC.; *Crassocephalum sarcobasis* (DC.) S.Moore

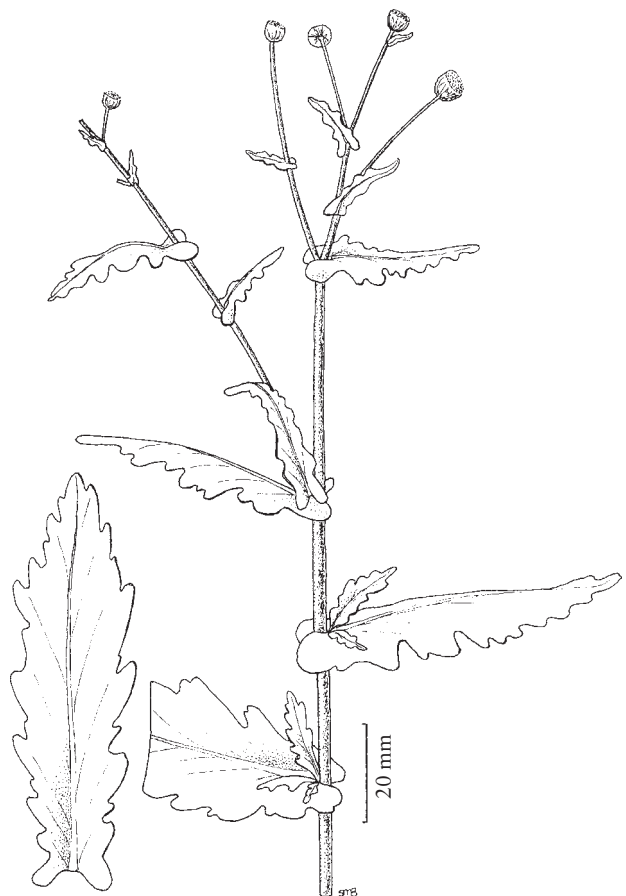
Crassocephalum montuosum
Del. Sandie Burrows



Crepis newii subsp. *newii*
Del. Eleanor Catherine



Dewildemanian stenophylla
Del. Sandie Burrows



Dichrocephala chrysanthemifolia var. *chrysanthemifolia*
Del. Sandie Burrows

Leaves usually rather broadly 2–8-lobed; capitula 1–12; involucre cylindrical, 8–12 mm long; disc florets purple, mauve, magenta or pink, very rarely blue.

Source. Patel (1999); Mill (1979); *F.T.E.A. Compositae* (3) (unpublished ms.).
Malawi. Nyika National Park, Chelinda Bridge, 2000, *Salubeni & Mwanyambo 6777* (MAL); between viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer 1726* (PRE); Southern Circular route at Chelinda Bridge, 10° 40' 15"S, 33° 51' 21"E, 2000, *Koekemoer 1779* (PRE).

Crassocephalum uvens (Hiern) S.Moore

Senecio uvens Hiern; *Senecio telmatophyllus* O.Hoffm.; *Senecio kimbilensis* Mattf.

Perennial herb with short rhizome, lower part of stem creeping, but becoming erect and 0.2–0.65 m high; leaves sessile, oblanceolate, 10–70 x 2–12 mm, attenuate to an exauriculate base; capitula solitary, long-stalked; disc florets orange-yellow or orange, corolla 7.5–11 mm long; achenes 3–4 mm long, glabrous; pappus 6.5–10 mm long; in marshy or riverine grassland. Tanzania, D.R.C., Angola, Zambia, Malawi, and Zimbabwe.

Source. *F.T.E.A. Compositae* (3) (unpublished ms.).
Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Crassocephalum vitellinum (Benth.) S.Moore

Gynura vitellina Benth.; *Gynura aurantiaca* Benth.

Annual or perennial herb 0.3–1.5(–3.5) mm; leaves sessile, ovate to broadly ovate, elliptic or obovate, 30–125 x 15–70 mm, margins sinuate-serrate; capitula solitary or up to 3, discoid, long-stalked; florets orange or orange-yellow; achenes 2 mm long, ribbed, shortly hairy; pappus 6–9 mm long; on forest margins and clearings, grassland, and bush land, occasionally in swamps. Kenya, Uganda, Tanzania, Nigeria, Cameroon, Bioko, D.R.C., Rwanda, Burundi, and Zambia.

Source. Brummitt (1973); Mill (1979); *F.T.E.A. Compositae* (3) (unpublished ms.).
Malawi. Nyika National Park, 8 km E. of Nganda, 1972, *Brummitt, Munthali & Syngé 159* (K, MAL, SRGH, LISC, EA); at 2nd trout dam on the way to Chelinda Bridge, 10° 35' 46"S, 33° 48' 25"E, 2000, *Koekemoer 1793* (PRE); wall of trout dam near Chelinda Camp, 10° 35' 20"S, 33° 48' 41"E, 2000, *Koekemoer 1696* (PRE).

Crepis hypochaeridea (DC.) Thell.

Anisoramphus hypochoerideus DC.; *Crepis chirindica* S.Moore

An erect perennial herb up to 0.5 m high, flowering stalks one to several; leaves numerous, mostly radical in a rosette, up to 100 x 15 mm; capitula solitary; corollas yellow, ligules strap-shaped; pappus of barbellate setae; a pyrophyte of open often seasonally water-logged grassland, or miombo woodland; flowering July to December. Malawi, Zambia, Zimbabwe, Nigeria, Cameroon, D.R.C., Angola, Tanzania, and South Africa.

Source. Mill (1979); *Flora zambesiaca* 6(1): 210 (1992); Patel & Overton (2002).
Malawi. Nyika Plateau, Kasaramba Road, ca 1 km from Viewpoint, 2,400 m, 1977, *Pawek 12452B* (K, MO, MAL); Juniper Forest, along fire break, 10° 45' 06" S, 33° 53' 15" E, 2000, *Koekemoer 1881* (PRE).

Crepis newii Oliv. & Hiern. subsp. **newii** ❖

Crepis swynnertonii S.Moore

An erect perennial herb, to 0.9 m high; flowering stalks often solitary, branching above; leaves mostly radical in a rosette, 100–360 x 20–60 mm, oblanceolate-spathulate; capitula erect, few to many in corymbose clusters, stalks 3–40 mm long; corollas yellow, ligule 10 x 2.5 mm; achenes brown, ripening to a bright orange-red, 4.5–7 x 0.5–0.75 mm, tapering above; pappus of numerous barbellate setae, to 6 mm long; in montane grassland and on forest margins. Zimbabwe and N. Mozambique to Kenya and Uganda.

Source. Brummitt (2002); *Flora zambesiaca* 6(1): 210 (1992).
Malawi. Nyika National Park, on road to Juniper Forest, 10° 41' 44"S, 33° 57' 09"S, 2000, *Koekemoer 1899* (PRE).

Dewildemania stenophylla (Baker) B.L.Burt ❖

Athrixia stenophylla Baker; *Erlangea filifolia* De Wild. & Muschl.

A slender erect perennial herb to 0.75 m high from a small woody rootstock with annual stems; leaves spirally arranged, 1.5–4.5 mm long, upper leaves decreasing in size; capitula many, solitary; corollas purple; outer pappus 10–15 brownish purple scales; inner of paleaceous setae fewer and slightly exceeding outer scales; in *Brachystegia* woodland, usually on rocky hillsides. Zambia, Malawi, and Tanzania.

Source. *Flora zambesiaca* 6(1): 185 (1992).
Malawi. Nyika Plateau, 1896, *Whyte 219* (K).

Dichrocephala chrysanthemifolia (Blume) DC. var. **chrysanthemifolia** ❖

Cotula chrysanthemifolia (Blume) DC.; *Dichrocephala abyssinica* A.Rich.; *Dichrocephala chrysanthemifolia* (Blume) DC. var. *macrocephala* Asch.

Annual or perennial, straggling or sub-erect herb 0.2–0.9(–1.5) m high, aromatic; leaves 15–100 x 5–35 mm, oblong or oblong-obovate, incised-lyrate with 2–3 lobes, hairy to hispid on both surfaces; capitula 8 mm long, in lax terminal panicles; florets numerous, outer florets white to yellowish, 0.2–0.4 mm long, inner florets 0.7–0.8 mm long; in high-rainfall high altitude areas, grassland, ruderal vegetation, forest margins. Widespread in tropical Africa; also in Arabia, India, Indonesia, the Philippines, and New Guinea.

Source. Wild (1975: 9); *F.T.E.A. Compositae* (2): 459 (2002).
Malawi. Nyika National Park, without locality or collecting details (Mill 1979).

Dichrocephala integrifolia (L.f.) Kuntze subsp. **integrifolia**

Hippia integrifolia L.f.; *Grangea latifolia* Lam.; *Dichrocephala latifolia* (Lam.) DC.

Annual herb 0.1–1 m high, erect or procumbent, aromatic; stems thinly hairy; leaves pale green, paler beneath, ovate, 10–120 x 6–80 mm; capitula 2–5 mm long, in lax leafy compound panicles; involucre spreading or reflexed; outer florets many, white, corolla 0.5–0.8 mm long, minutely 2–3-dentate, with few glands outside near the base; inner florets fewer than outer, white or pale yellow, 0.5–0.7 mm long with 3–4 lobes; a weedy annual of high altitude areas, in forest clearings and forest edges, often in moist situations. Widespread in tropical Africa from South Africa to Ethiopia; also in southern Europe, Madagascar, India, and Asia.

Source. Wild (1975: 7); *F.T.E.A. Compositae* (2): 459 (2002).
Zambia. Nyika Plateau, 1959, *Robinson 3004* (K, M, PRE, SRGH).

Dicoma anomala Sond. subsp. **anomala** ❖

Dicoma nyikensis Baker [Type: Nyika Plateau, 1896, *Whyte* s.n. (K, holo.)]; *Dicoma anomala* var. *sonderi* Harv.; *Dicoma cirsioides* Harv.

Decumbent, tuberous rootstock, stems annual; leaves linear-elliptic, 25–110x6 mm, gland-pitted and glabrous above, hairy below; capitula solitary, terminal, 18–30 x (15)20–35 mm; bracts 90–200, dark red around midrib, margins sharply serrulate; florets 20–90+, purplish-mauve or white; pappus copious, barbellate; on hillsides, flat montane grassland or savanna. Burundi to South Africa.

Source. Brummitt (1973); *Flora zambesiaca* 6(1): 37 (1992).
Malawi. Nyika Plateau, near Chelinda Bridge, 1986, *Philcox, Pope & Chisumpa 10025* (BR, K, LISC, MO, NDO, SRGH); Kawozya summit, 1972, *Brummitt & Syngé 201* (K, MAL, SRGH, EA); road between Nganda and Jalawe Viewpoint, 10° 26' 42"E, 33° 47' 53"E, 2000, *Koekemoer 1852* (PRE); path to Chisanga Falls, 2000, *Burrows & Burrows 6776* (PRE).

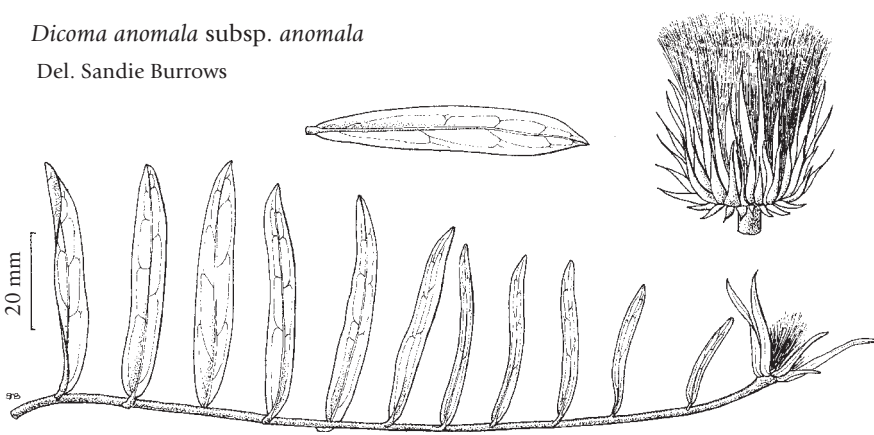
Dicoma plantaginifolia O.Hoffm.

Dicoma pygmaea Hutch.; *Macladium plantaginifolium* (O.Hoffm.) S.Ortiz

Perennial herb from a woody rootstock; to 50 mm high, simple or with a few short branches; leaves few to numerous, prostrate, discolorous, 60–200 x 15–120 mm, oblong-elliptic, margins sparsely denticulate or serrulate, upper surface green and glabrous, lower surface white araneose, strongly 5(–7)-nerved from the base; capitula subsessile, 1–7, solitary or densely clustered in the leaf rosette; involucre mostly 25–36 x 20–50 mm; corollas creamy to brownish, usually with purplish lobes, 10–13 mm long; a pyrophyte of miombo woodland and submontane grassland. Zambia, Malawi, Tanzania, D.R.C., Burundi, and Angola.

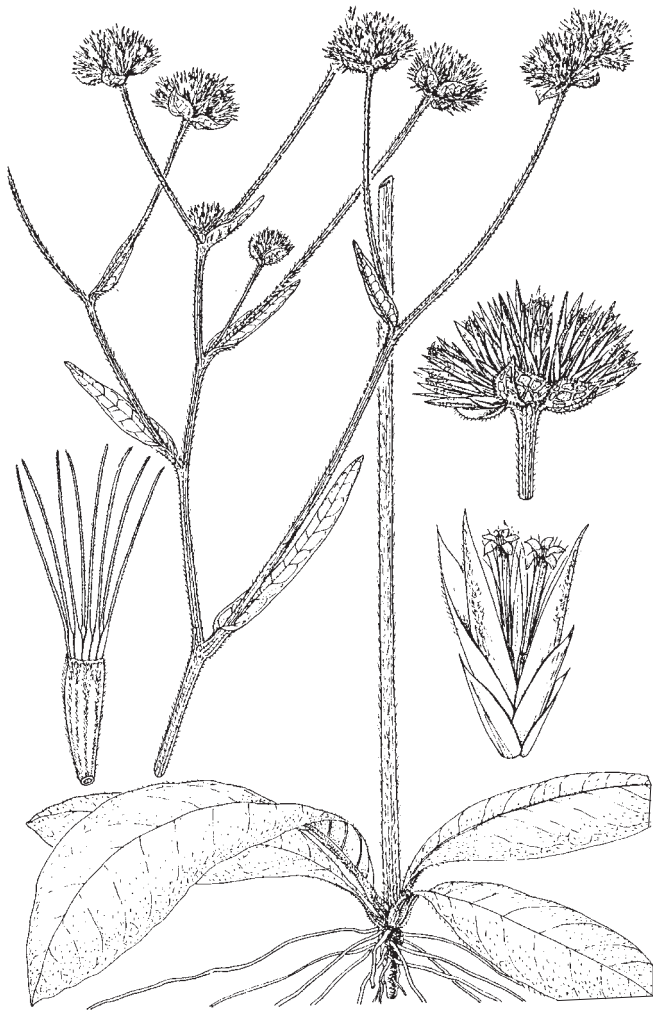
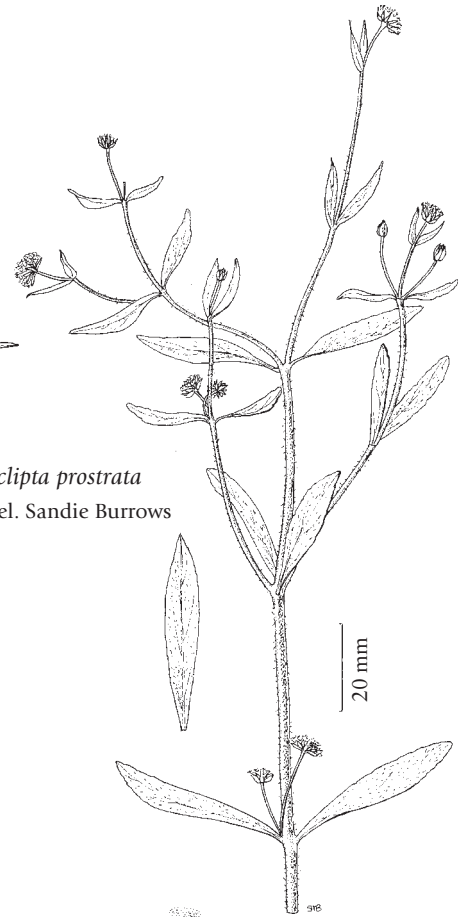
Dicoma anomala subsp. *anomala*

Del. Sandie Burrows



Eclipta prostrata

Del. Sandie Burrows



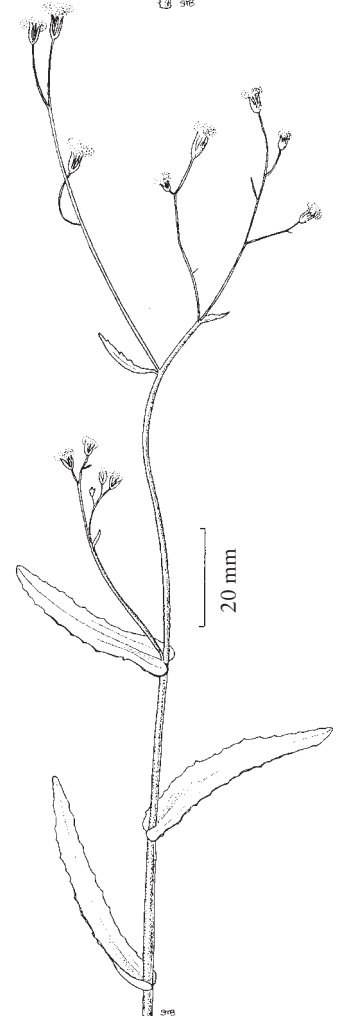
Elephantopus scaber subsp. *plurisetus*

Del. Margaret Tebbs



Erigeron karvinskianus

Del. Sandie Burrows



Emilia integrifolia

Del. Sandie Burrows

Source. *Flora zambesiaca* 6(1): 34 (1992).

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

Dicoma sessiliflora Harv.

Slender erect perennial to 1 m high from a woody rootstock; stems annual, usually solitary, with largest leaves somewhat clustered on the lower stem; leaves discolorous, sessile, 120–270 x (15–)20–60 mm; capitula few to numerous, spike-like, 1–2 sessile in upper leaf axils; involucre mostly 20–30 x 16–30 mm; phyllaries numerous, stiffly chartaceous, 6–30 mm long, long-pungent acuminate above; corollas yellowish, ca 10 mm long; in miombo and mixed deciduous woodland, as well as wooded grasslands. Widespread in tropical Africa.

Source. Brummitt (1973); Wild (1972: 184); Mill (1979); Patel & Overton (2002).

Malawi. Nyika Plateau, Panda Peaks, 1903, *McClounie* 19 (K); S. slopes of Kawozya, 1972, *Brummitt & Syngae* 176 (K, MAL, SRGH, EA, BR).

***Eclipta prostrata** (L.) L. ❖

Verbesina prostrata L.; *Verbesina alba* L.; *Eclipta alba* (L.) Hassk.

Erect or decumbent annual or biennial herb to 0.9 m high, sometimes scrambling or mat-forming; leaves shortly petiolate, leaves narrowly elliptic or elliptic, 20–120 x 3–30 mm, base tapering, margin serrate or serrate-crenate; capitula hemispheric, stalked, up to 12 mm diameter; ray florets inconspicuous, white, lamina ca 2 mm long; disc florets white; occurring naturally around pans and flood plains, preferring damp or swampy situations, often a weed of irrigation schemes. A cosmopolitan weed of the warmer regions of the world.

Source. Wild (1967: 59).

Malawi. Nyika, 1903, *McClounie* 55 (K).

Elephantopus scaber L. subsp. **plurisetus** (O.Hoffm.)

Phillipson var. **plurisetus** O.Hoffm. ❖

Elephantopus welwitschii Hiern

Plants not robust, to 1.3 m high; basal leaves 70–620 x 15–100 mm, cauline leaves smaller; capitula solitary, glomerules 15–20 mm diameter; corollas mauve; pappus 7–10, overlapping scale-like below gradually tapering into subterete barbellate seta, 3.5–6 mm long; in miombo woodland and wooded grassland, often on rocky hillsides. Malawi, Zambia, Zimbabwe, Mozambique, Tanzania, D.R.C., and Angola.

Source. Patel (1999); Mill (1979); *Flora zambesiaca* 6(1): 188 (1992); Patel & Overton (2002).

Malawi. Nyika National Park, 43 km from Kagaza Gate on Nyika-Chisenga Road, 1,600 m, 1986, *Philcox, Pope & Chisumpa* 10049 (BR, K, MAL, NDO); W. of Vitinthiza Hill, 2000, *Izidine* 29 (LMA); path between viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer* 1711 (PRE).

Emilia coccinea (Sims) G.Don

Emilia flammea sensu auct., non Cass.; *Emilia sagittata* sensu auct.

Annual herb, 0.15–1.2 m high; leaves spatulate, ovate or elliptic, 12–195 x 4–60 mm, base cuneate or attenuate into a winged base in the lower leaves; capitula in terminal corymbs of 1–6, discoid; corolla bright orange, lobes 1–2.2 mm long; achenes 2–4.7 mm long, shortly hairy at least in upper part; pappus 3–6 mm; in grassland, bushed grassland, a common weed of cultivation. Uganda, Tanzania, Kenya, Zimbabwe, D.R.C., Burundi, Angola, Zambia, and Mozambique.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, Jalawe Viewpoint, 2000, *Thera* 3110 (MAL); Fingira Rock, 2000, *Willis & Luhanga* 206 (PRE).

Emilia guineensis Hutch. & Dalziel

Erect slender-branched herb 0.3–0.5 m high with numerous yellowish heads. A species described from Guinea, but the name has never been listed in any subsequent publications, notably the most recent being *F.T.E.A.* Compositae (3), and *Kew Bulletin* 41(4): 873–943. Two specimens in PRE from Angola and Zimbabwe.

Malawi. Nyika National Park, Dembo Bridge, 2000, *Willis* 23 (PRE).

Emilia hockii (De Wild. & Muschl.) C.Jeffrey

Senecio hockii De Wild & Muschl.; *Senecio rogersii* S.Moore

Perennial herb 60–30 mm high with creeping rhizome; leaves slightly fleshy, grey-green above, sessile, narrowly obovate or elliptic, 11–50 x 2–28 mm, base attenuate; scapes 1–4, glabrous, 1-headed; capitula terminal, solitary, discoid; florets yellow or orange; achenes 4–5.5 mm long, hairy; pappus 7.5–9 mm long; in grassland, burnt grassland, roadsides, cultivation. Malawi, Tanzania, D.R.C., and Zambia.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Emilia integrifolia Baker ❖

Annual or short-lived perennial herb 0.01–1.2 m high; leaves sessile, somewhat succulent, basal leaves 11–65 x 2–13 mm, upper leaves 30–160 x 2–7 mm; capitula 3–14 in lax to rather congested terminal corymbs, discoid; disc florets bright to pale purple, mauve, pink or white, corolla 4–6.2 mm long, lobes 1–2 mm; achenes 1.2–1.5 mm long, glabrous; pappus 2.5–4 mm long; in swampy grassland, sometimes common. Kenya, Uganda, Tanzania, Zambia, and Malawi; also Madagascar.

Source. Patel (1999); Mill (1979); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, Lake Kaulime, 2000, *Mwanyambo* 497 (MAL); at 2nd trout dam on the way to Chelinda Bridge, 10° 35' 46"S, 33° 48' 25"E, 2000, *Koekemoer* 1794 (PRE).

***Erigeron karvinskianus** DC. ❖

Erigeron mucronatus DC.

Perennial herb, 0.3–0.75 m long, procumbent and forming interlaced mats, with erect flowering branches; leaves alternate or in axillary fascicles, proximal leaves with 3–5 lobes, distal leaves elliptic, 5–40 x 3–16 mm, 3-nerved from the base; capitula 7–8 mm long, solitary or up to 5 in a lax panicle; ray florets 1-seriate, rays white above, pink beneath, 5–6 x 0.5–1 mm; disc florets yellow; along roadsides, in clearings or cultivated fields. Originally from Central America, but now a widespread weed in the colder and wetter parts of the tropics.

Source. *F.T.E.A.* Compositae (2): 481 (2002).

Malawi. Nyika National Park, wall of trout dam near Chelinda Camp, 10° 35' 14"S, 33° 48' 41"E, 2000, *Koekemoer* 1694 (PRE).

Erythrocephalum zambesianum Oliv. & Hiern ❖

Erythrocephalum zambesianum var. *angustifolium* S.Moore;

Erythrocephalum niassae Wild

An erect suffrutex 0.12–0.8 m high, from a woody rootstock; stems annual, usually single; leaves discolorous, sessile, 70–220 x 15–75 mm, elliptic to lanceolate, margins sharply serrulate, upper surface green, thinly araneose; capitula usually solitary; ray florets deep-red, rays to 12 x 2.5 mm, pappus of few caducous setae; disc florets deep-red, 8–14 mm long; in miombo woodland and open grassland. Mozambique, Tanzania, and D.R.C.

Source. Mill (1979); *Flora zambesiaca* 6(1): 23 (1992).

Malawi. Nyika National Park, path between viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer* 1708 (PRE); Mwanda Mountain slope, 2000, *Willis* 182 (PRE).

Felicia boehmii O.Hoffm. ❖

Felicia homochroma S.Moore; *Felicia boehmii* O.Hoffm. subsp.

homochroma (S.Moore) Grau

Erect annual herb, 0.1–0.75 m high; leaves opposite proximally, alternate distally, linear to lanceolate, 10–60 x 1–14 mm; capitula 5–12 mm long; involucre bracts thinly hairy; ray florets yellow to orange, ca 30, ray 4–13 x 0.7–3 mm; disc florets yellow to orange, tube 3–3.8 mm long; in grassland, woodland, on sandy or rocky soils. Malawi, Zambia, Nigeria, Cameroon, D.R.C., and Tanzania.

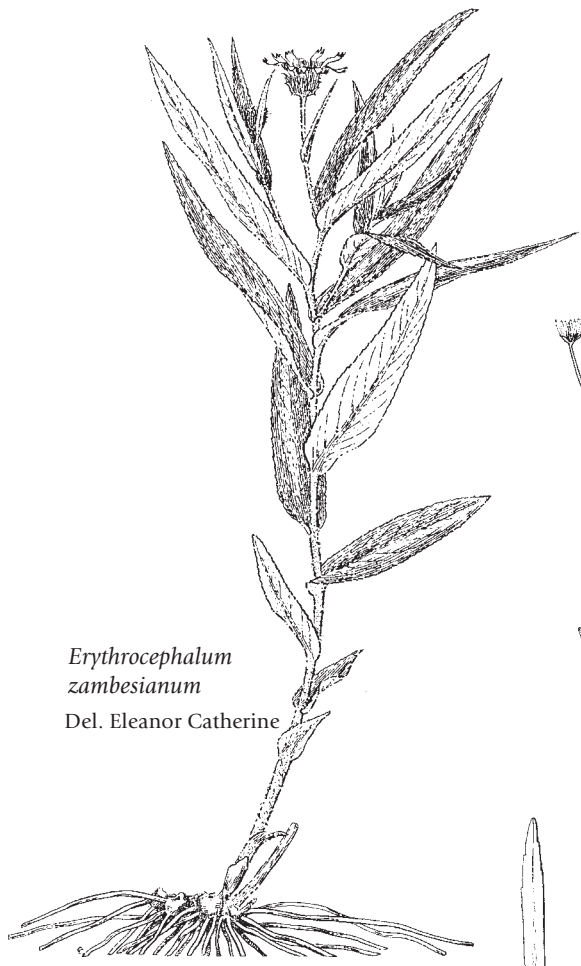
Source. Grau & Lippert (1980: 8); *F.T.E.A.* Compositae (2): 475 (2002).

Malawi. Nyika National Park, Chisimuka, 2001, without collecting details (Patel & Overton 2002: 34).

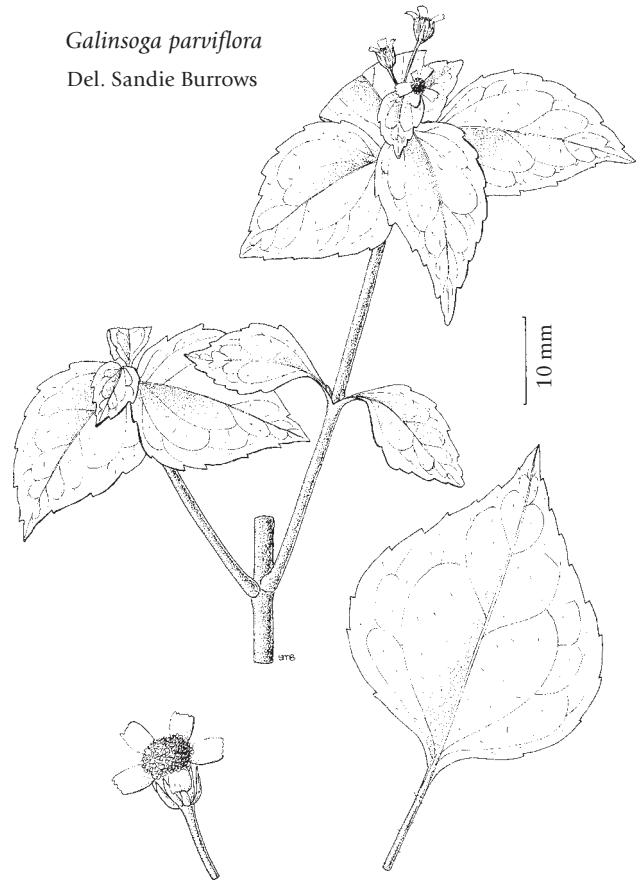
***Galinsoga parviflora** Cav. ❖

Adventina parviflora Raf.

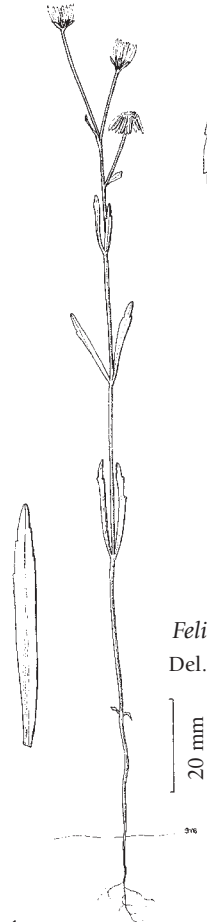
Annual herb up to 0.1–0.75 m high, erect, spreading or decumbent; leaves petiolate, membranous, ovate 15–70 x 8–40 mm, 3-veined from base; petiole to 15 mm long; capitula in few-headed cymes; ray florets white, 4–5,



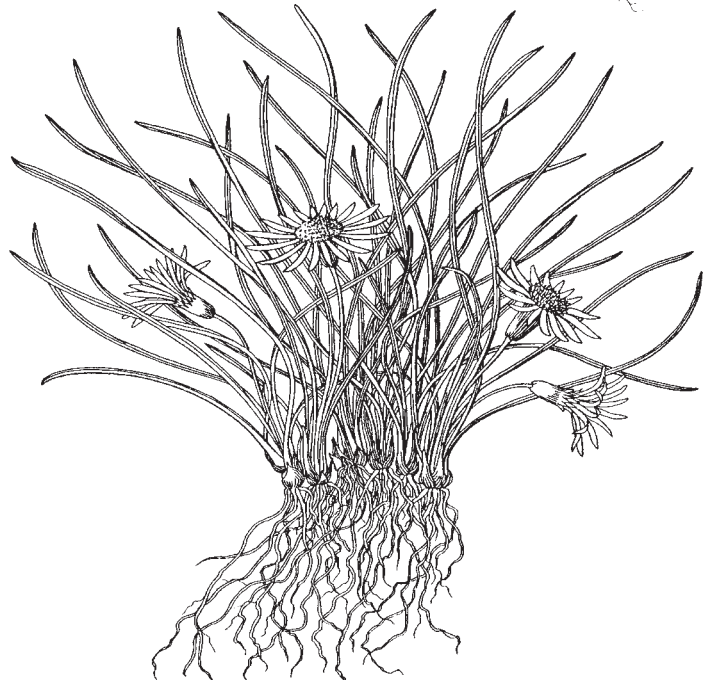
Erythrocephalum zambesianum
Del. Eleanor Catherine



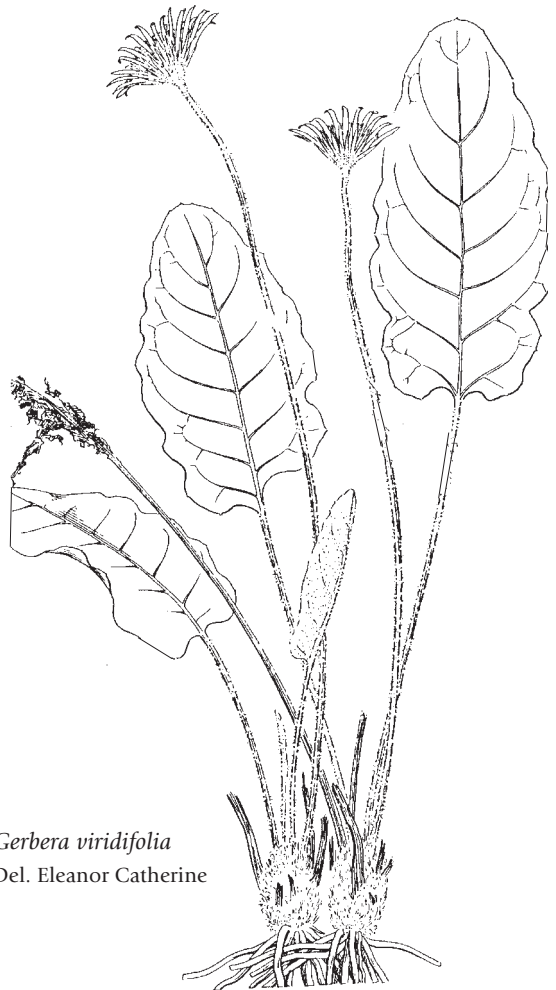
Galinsoga parviflora
Del. Sandie Burrows



Felicia boehmii
Del. Sandie Burrows



Gazania krebsiana subsp. *serrulata*
Del. Victoria Goaman



Gerbera viridifolia
Del. Eleanor Catherine

ray broadly ovate, 0.8–1.2 mm long, 3-lobed; disc florets yellow; achenes 1.2–2 mm long, puberulous; pappus of about 15 ovate lacinate scales 1–1.5 mm long; a weed in gardens and waste places. Native to S. America.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Gazania krebsiana Less. subsp. **serrulata** (DC.) Roessler ❖

Gazania oxyloba DC.; *Gazania lineariloba* DC.

Perennial herb to 0.2 m high; leaves pinnatifid or entire; flowers yellow or white with green, brown or purple veins below, disc florets yellow; in grassland and seasonal swamps (marshes or dambos) from low to high altitudes; flowering October to July. Widespread in central and southern Africa.

Source. Patel (1999); Mill (1979); Roessler (1975: 97).

Malawi. Nyika Plateau, valley N. of Chelinda Camp, 2,300m, 1962, *Tyrer 712* (BM, SRGH); South Circular Route, 10° 38' 23"S, 33° 45' 46"E, 2000, *Koekemoer 1826* (PRE); between Chelinda Bridge and Dembo River crossing, 10° 31' 53"S, 33° 51' 27"E, 2000, *Koekemoer 1755* (PRE).

Gerbera ambigua (Cass.) Sch.Bip.

Gerbera kraussii Sch.Bip. incl. *Gerbera kraussii* var. *gueinzii* Harv.;

Gerbera kraussii var. *simuata* Dummer; *Lasiopus ambiguus* Cass.

Acaulescent perennial herb; leaves entire or sinuate, lower surface persistently white or lemon tomentose; rays white above, pink, mauve or red below, rarely yellow; disc florets white, yellow, reddish or blackish; a pyrophyte in submontane areas, open *Brachystegia* woodland, savanna, along rivers or in damp areas in grassland. Tanzania, Zambia, Zimbabwe, Malawi, Mozambique, D.R.C., Swaziland, and South Africa.

Source. Patel (1999); Brummitt (1973); *Flora zambesiaca* 6(1): 47 (1992); Wild (1972: 204); Patel & Overton (2002).

Malawi. Nyika, Chelinda Camp, 1962, *Tyrer 706* (BM, SRGH).

No country given. 1967, *Richards 22617* (UZL).

Gerbera piloselloides (L.) Cass. ●

Arnica piloselloides L.; *Gerbera hirsuta* (Forssk.) Less.

An acaulescent perennial herb, from a thickened rootstock; leaves few to many, radical, ascending or spreading, broadly lanceolate, 40–200(–300) × 15–70 mm; capitula solitary, involucre 16–28 × 15–35 mm; ray florets creamy-white, rays to 7 × 1 mm, achenes 8–11 mm long with a beak to 14 mm long; central florets creamy-white, functionally male; pappus copious, setae 6–11 mm long; a pyrophyte of submontane and plateau grasslands, in dambos, and in open *Brachystegia-Uapaca* woodland. Widespread in Africa and Asia.

Source. Brummitt (1973); *Flora zambesiaca* 6(1): 48 (1992); Wild (1971: 206).

Malawi. Nyika National Park, Nganda, 1972, *Synge 366* (K, MAL, SRGH, UPS); without locality, 1947, *Benson 1422* (BM, SRGH).

No country given. 1967, *Richards 22459* (UZL).

Gerbera viridifolia (DC.) Sch.Bip. ❖

Lasiopus viridifolius DC.; *Gerbera abyssinica* Sch.Bip.

Acaulescent perennial herb from a thickened rootstock; roots thong-like, thick, but not swollen; leaves radical, ascending or spreading, up to 220(–280) × 140, lanceolate, elliptic, oblong or rarely ovate, cuneate, with remote crenate, distinct teeth; young leaves and scapes moderately pilose-villose with whitish hairs; scapes not swollen below head; capitula solitary, involucre mostly 10–18 × 20–30 mm; rays biseriate, prominent, white above, pink or even yellow below, ray (8–)15(–24) × 1.7 mm; disc white, yellow or tinged greenish; in grassland, savanna, open woodland, riverbanks, and mountainsides. Widespread throughout Africa.

Source. Patel (1999); Mill (1979); *Flora zambesiaca* 6(1): 44 (1992); Patel & Overton (2002).

Malawi. Nyika Plateau, ca 40 km E. of Rest House on Nchenachena Road, 2,400 m, 1958, *Robson 429* (BM, K).

Zambia. Nyika Plateau, ca 6 km S. of Nganda Hill, 2,133 m, 1955, *Lees 88* (K).

Guizotia scabra (Vis.) Chiov. subsp. **scabra** ❖

Veslingia scabra Vis.; *Guizotia schultzei* Hochst. ex. A.Rich.; *Guizotia*

nyikensis Baker

Erect perennial or annual herb ca 1(–2) m high; leaves opposite, sessile, narrowly lanceolate to ovate, 30–170 × 10–40 mm; capitula in corymbose cymes; ray florets yellow or orange-yellow, deeply 3-dentate, ray 11–16 mm long; disc florets yellow, pubescent at the base; achenes 1.8–3 mm long, glabrous; pappus absent; usually in swampy areas or by streamsides, occasionally in grassland in high-rainfall areas, a weed of cultivated areas. Widespread in tropical Africa.

Source. Patel (1999); Brummitt (1972); Mill (1979); Wild (1967: 12); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika Plateau, 1896, *Whyte* s.n. (K, syn.) [Type of *G. nyikensis*]; N.W. foot of Nganda, 1958, *Robson & Angus 471* (BM, K, SRGH); Luselo R., 2000, *Salubeni & Mwanyambo 6801* (MAL); Juniper Forest, 2000, *Burrows & Burrows 6928* (PRE).

Gynura scandens O.Hoffm. ❖

Crassocephalum scandens (O.Hoffm.) Hiern; *Crassocephalum ruwenzoriensis* S.Moore

Climbing herb, 1.5–12 m long, slightly fleshy with unpleasant smell; leaves ovate or triangular, 25–120 × 15–80 mm, margin denticulate to dentate; capitula several to many in terminal corymbs; florets orange or rarely yellow, 10–16 mm long; achenes 4.5 mm long, hairy in the grooves; pappus white, 8–11 mm long; on forest margins and in clearings, also in secondary forest and riverine forest. Kenya, Uganda, Tanzania, D.R.C., Rwanda, Burundi, Angola, Zambia, and Malawi.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Haplocarpha scaposa Harv. ❖

Haplocarpha thumbergii DC.; *Arctotis scaposa* (Harv.) O.Hoffm.

A scapose perennial herb from a woody rootstock; leaves up to 12, rosulate, 50–200 × 15–60 mm, elliptic to oblanceolate, midrib composed of 5–7 distinct veins, upper surface finely pilose, lower surface densely white-felted; involucre 12–25 × 8–13 mm, broadly cupuliform; rays yellow, usually erect, 10–21 × 1.5–2.8 mm; a pyrophyte of submontane grassland, miombo and *Acacia* woodlands bordering dambos, or on floodplains, often in black clay soils, flowering soon after fires. Central and southern Africa.

Source. Patel (1999); Mill (1979); *Flora zambesiaca* 6(1): 233 (1992).

Malawi. Nyika Plateau, Lake Kaulime, 2,150 m, 1958, *Robson & Angus 322* (K).

Zambia. Nyika, without locality, 1962, *Fanshawe 7353* (K, NDO).

Helichrysum abietinum O.Hoffm.

Shrub 0.3–1.8(–3) m high, much branched, branches densely leafy; leaves dark green above, silvery beneath, spreading, sessile, linear, 5–15 × 0.5–2 mm, margins revolute, sparsely pilose and glandular above, tomentellous and glandular beneath; capitula 3–5 mm long, in terminal convex corymbs to 20 mm diameter; involucre bracts silvery-green when fresh, drying pale brown with darker apex; florets yellow, 20–30, 1.7–2.3 mm long; in grassland and on river banks. Tanzania, D.R.C., Burundi, and Malawi.

Source. *F.T.E.A.* Compositae (2): 417 (2002).

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

Helichrysum brassii Brenan

Perennial herb 0.3–0.4 m high; leaves oblanceolate 15–50 × 3–8 mm, upper surface with short dense glandular indumentum showing 1–2 prominent veins; capitula terminal or 1–5 together; involucre 8–12 mm long; achenes oblong-ellipsoid, 0.5 × 0.3 mm; in open grassland and woodland. Malawi and Mozambique. Brenan (1954) describes three varieties of which he records two for Nyika: var. *aggregatum* and var. *tenellum*. For this treatment the varieties are not described separately. This species closely resembles *H. sulphureo-fuscum*.

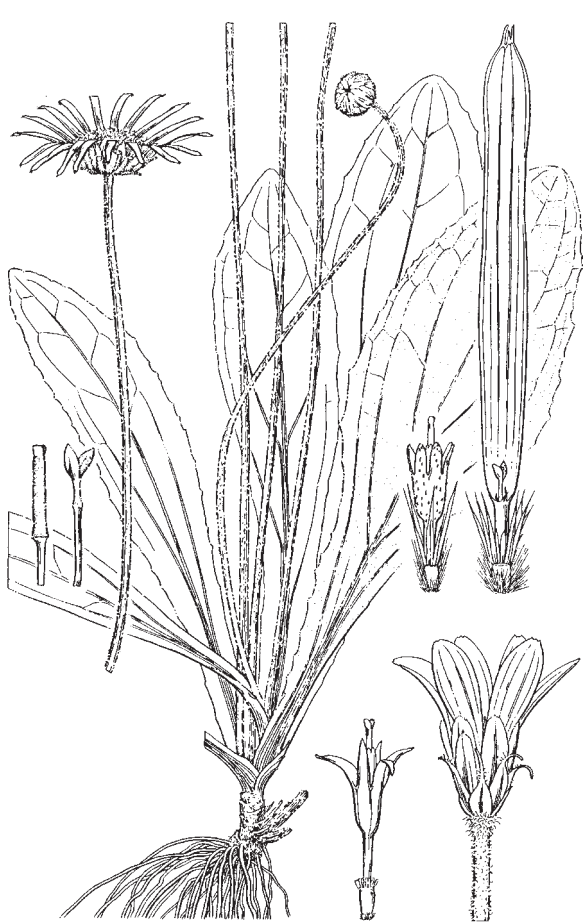
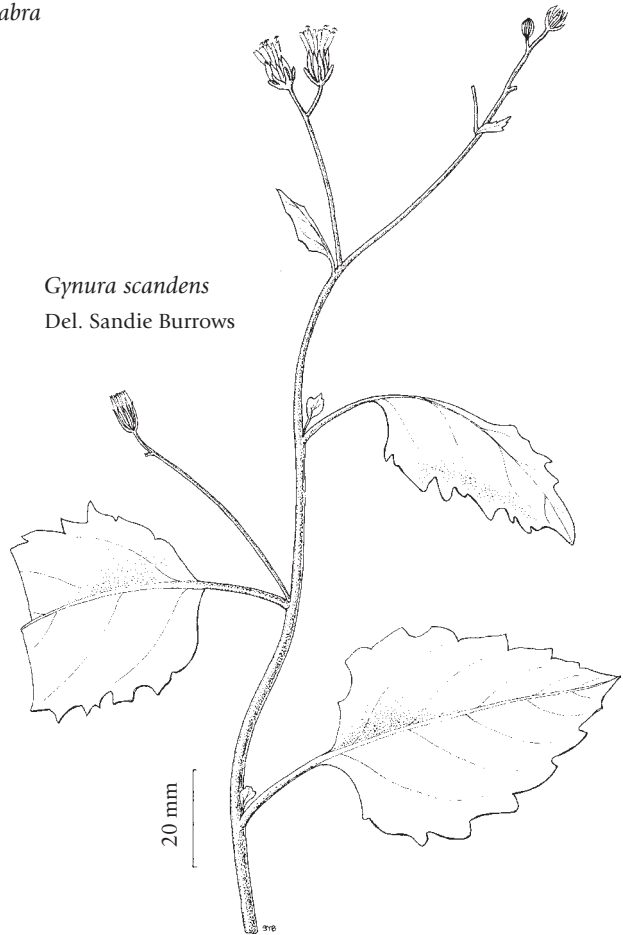
Source. Patel (1999); Brenan (1954: 472).

Malawi. Nyika National Park, Chosi Viewpoint, 2000, *Mwanyambo 478* (MAL); *ibid.*, 2000, *Koekemoer 1678* (PRE); Southern Circular route to Chelinda Bridge, 10° 37' 40"S, 33° 48' 21"E, 2000, *Koekemoer 1803* (PRE); Nyika Plateau, 1903, *McClounie 154* (K).

Guizotia scabra subsp. *scabra*
Del. Sandie Burrows

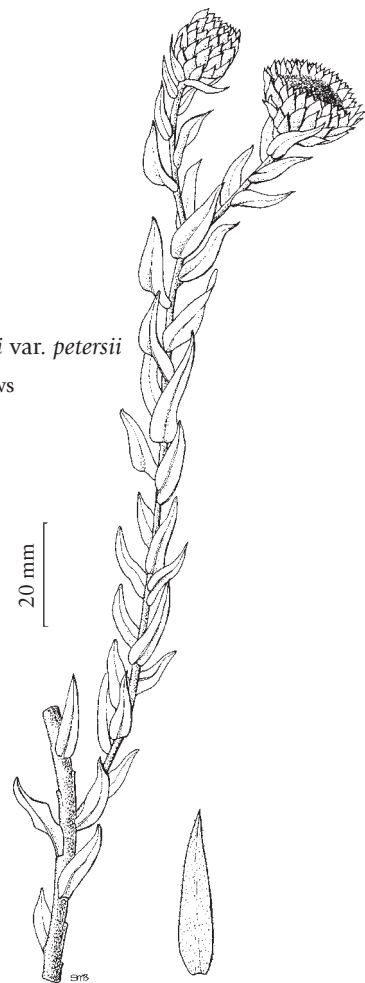


Gynura scandens
Del. Sandie Burrows



Haplocarpha scaposa
Del. Eleanor Catherine

Helichrysum kirkii var. *petersii*
Del. Sandie Burrows



Helichrysum buchananii Engl.*Helichrysum kassneri* S.Moore

Perennial herb 0.3–1 m high, with stems from a woody rootstock; leaves greyish green, sessile, oblong to lanceolate, 10–50 x 3–12 mm, base semi-amplexicaul, margins slightly revolute, densely tomentose on both surfaces; capitula 9–12 mm long, solitary or in small groups; involucre bracts shiny golden yellow or brownish; florets yellow to orange, 1.7–2.2 mm long; in grassland and disturbed areas. Tanzania, D.R.C., Rwanda, Burundi, Malawi, Mozambique, and Zimbabwe.

Source. Patel (1999); *F.T.E.A. Compositae* (2): 417 (2002).

Malawi. Nyika National Park, Dembo Bridge, 2000, *Thera 3005* (MAL); without locality or collecting details (Mill 1979).

Helichrysum foetidum (L.) Moench*Gnaphalium foetidum* L.; *Gnaphalium argenteum* Mill.; *Helichrysum foetidum* var. *citreum* Less.; *Helichrysum foetidum* var. *pallidum* Less.

Stout biennial herb, stem simple or sparingly branched, to 1 m high, glandular-pubescent; radical leaves elliptic, to 120 x 50 mm, withered at flowering; cauline leaves mostly 40–90 x 10–25 mm, lanceolate; capitula 8–12 x 15–25 mm with radiating bracts, many in corymbose panicle; bracts glossy, pale lemon-yellow or creamy; flowers 396–835; in grassland and on forest margins, sometimes in disturbed areas. South Africa northwards throughout eastern Africa to Sudan and Ethiopia; perhaps extending as far as Nigeria, Spain, and Arabia.

Source. Patel (1999); Mill (1979); Hilliard (1983: 304).

Malawi. Nyika National Park, close to Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1691* (PRE); between Chelinda Bridge and Dembo River crossing, 10° 32' 38"S, 33° 50' 33"E, 2000, *Koekemoer 1743* (PRE).

Helichrysum forskahlii (J.F.Gmel.) Hilliard & B.L.Burt var. **forskahlii** ●*Helichrysum fruticosum* (Forssk.) Vatke; *Helichrysum cymosum* (L.)D.Don subsp. *fruticosum* Hedberg; *Helichrysum leptothamnus* Moeser

Erect or sometimes much-branched scandent shrub, 0.3–1 m high; leaves spreading, somewhat distant, 10–25 x 2–5 mm, sparsely tomentose to glabrous above, grey-tomentose beneath; involucre bracts pale green, yellow or silvery yellow with darker apices; capitula 2–4.5 mm long, in dense roundish cymes; florets 9–30, pale yellow becoming orange with age, 1.8–2.6 mm long; in upland and alpine grassland, forest margins, and boggy sites, also on dry, stony sites. From Nigeria to Ethiopia and Yemen in the north, throughout central Africa to Angola and Zimbabwe.

Source. *F.T.E.A. Compositae* (2): 415 (2002); Patel (1999); Brummitt (1973); Mill (1979); Patel & Overton (2002).

Malawi. Nyika National Park, Kawozya summit, 1972, *Brummitt & Syngé 203* (K, MAL, SRGH, LISC, EA, UPS); Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1685* (PRE); South Circular Route, 10° 37' 40" S, 33° 48' 21" E, 2000, *Koekemoer 1919* (PRE); hill slope E. of Dembo Bridge, 2000, *Willis 31* (PRE).

Helichrysum goetzeanum O.Hoffm.

Perennial herb scrambling to 2.5 m; branches white-tomentose; leaves lanceolate, 30–180 x 10–55 mm amplexicaul, sparsely pilose above, white-tomentose beneath; capitula 7–8 mm long, many in corymbose panicles; involucre bracts shiny pale yellow; florets yellow, 1.8–2.9 mm long; achenes ellipsoid, 0.8–0.9 mm long, glabrous; pappus whitish, 2–3 mm long, barbellate; at high altitudes, on forest margins. Tanzania, D.R.C., Rwanda, and Malawi.

Source. Brummitt (1973); Patel (1999); Mill (1979); *F.T.E.A. Compositae* (2): 428 (2002).

Malawi. Nyika National Park, forest 4 km W. of Nganda, 1972, *Brummitt & Syngé 76* (K, MAL, SRGH, LISC, EA).

Helichrysum herbaceum (Andr.) Sweet*Helichrysum monocephalum* Baker [Syn.: S Nyika Mountains, 1896, Whyte s.n. (K)]; *Helichrysum splendens* Sims

Perennial herb to 0.3–0.6 m high, stoloniferous, stems solitary or few; rosette leaves sometimes present, to 50 x 20 mm; cauline leaves sessile, linear, 10–30 x 1–3 mm, margins revolute; capitula campanulate, 18–20 mm long, solitary or in few-headed corymbs; flowers yellow to orange, 4.1–4.9 mm

long; involucre yellow to golden-brown; confined to mountainous grassland. Tanzania, D.R.C., Zambia, Malawi, Zimbabwe, and South Africa.

Source. Patel (1999); *F.T.E.A. Compositae* (2): 434 (2002).

Malawi. Nyika National Park, Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1679* (PRE); Jalawe Viewpoint, 10° 21' 44"S, 33° 47' 49"E, 2000, *Koekemoer 1866* (PRE); Chelinda Bridge, 2000, *Willis 41* (PRE).

Helichrysum hilliardiae Wild

Perennial stoloniferous herb to 0.6 m high, stolons to 200 mm long; stems erect, 2–3, pilose; leaves to 60 x 15 mm, oblong to obovate; capitula to 10 mm diameter, congested terminally; female florets 33–53, hermaphrodite florets 200–500; achenes 0.25 mm long, cylindrical; pappus barbellate; in secondary forest, at streamsides, or in swampy ground. Endemic to Nyika Plateau.

Source. Wild (1983: 192).

Malawi. Nyika Plateau, near Chelinda chalets, 1967, *Hilliard & Burt 4445* (SRGH, holo., E, NU); *ibid.*, 1977, *Pawek 12256* (K, MO, SRGH, UC); Lake Kaulime, 1959, *Richards 10472* (K, SRGH).

Zambia. Nyika Plateau, without locality, 1962, *Fanshawe 7313* (NDO, SRGH).

Helichrysum kirkii Oliv. & Hiern var. **kirkii***Helichrysum kirkii* Oliv. & Hiern var. *concolor* Engl.; *Helichrysum milanjiense* Britten; *Helichrysum luteorubellum* Baker; *Helichrysum kirkii* Oliv. & Hiern var. *luteorubellum* (Baker) Moeser; *Helichrysum petersii* Oliv. & Hiern var. *angustifolium* Moeser

Perennial herb, 0.3–1.2 m high, one to several erect stems from a vertical woody rhizome, densely leafy; leaves linear, 10–40 x 1–4 mm, overlapping, thinly tomentose and glabrescent above, white-tomentose beneath; capitula 9–16 mm long, solitary or in few-headed cymes, involucre bracts golden yellow or rarely orange yellow; florets yellow or orange-yellow, 2.5–4 mm long; in montane grassland or bushed grassland, often in stony or eroded situations, may be locally common. Kenya, Tanzania, D.R.C., Zambia, Malawi, and Mozambique.

Source. Patel (1999); Brummitt (1973); Mill (1979); *F.T.E.A. Compositae* (2): 429 (2002); Patel & Overton (2002).

Malawi. Nyika National Park, S. slopes of Kawozya, by lower Mondwe River, 1972, *Brummitt & Syngé 175* (K, MAL, LISC); N. of Fingira Rock, 2000, *Willis 253* (PRE).

Helichrysum kirkii Oliv. & Hiern var. **petersii** (Oliv. & Hiern) Beentje ❖*Helichrysum petersii* Oliv. & Hiern; *Helichrysum kundelungense*S.Moore; *Helichrysum petersii* Oliv. & Hiern var. *subglabrum* De Wild

Leaves aromatic, lanceolate, 10–50 x 2–10 mm, scabrid above, grey-pubescent or green and sparsely pubescent beneath; capitula in terminal corymbs; involucre pale golden yellow or straw-coloured; in montane grassland and miombo. Tanzania, D.R.C., Angola, Zambia, Malawi, and Mozambique.

Source. Patel (1999); Mill (1979); *F.T.E.A. Compositae* (2): 431 (2002).

Malawi. Nyika National Park, Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1682* (PRE); between Chelinda Bridge and Dembo River crossing, 10° 32' 38"S, 33° 50' 33"E, 2000, *Koekemoer 1749* (PRE); Juniper Forest, 2000, *Burrows & Burrows 6939* (MAL, PRE).

Helichrysum mechowianum Klatt var. **ceres** (S.Moore) Beentje*Helichrysum ceres* S.Moore; *Helichrysum verbascifolium* S.Moore;*Helichrysum lepidorhizum* Moeser; *Helichrysum squamosifolium*

S.Moore

Perennial herb with woody rootstock; flowering shoots 0.2–0.5 m high; radical leaves 1–2; cauline leaves 15–30 x 2–8 mm, villous to subglabrous above, tomentose beneath; capitula 5–8 mm long, in dense glomerules united in a fairly dense terminal globose corymb 40–90 mm diameter; involucre brown or golden-yellow, sometimes with a reddish tinge; florets yellow, 6–14, 3–5 mm long; in burned areas in grassland or wooded grassland. Tanzania, D.R.C., Rwanda, Burundi, Zambia, Malawi, and Zimbabwe.

Source. Patel (1999); Mill (1979); *F.T.E.A. Compositae* (2): 426 (2002).

Malawi. Nyika Plateau, 1903, *Henderson* s.n. (BM).

Helichrysum mechowianum Klatt var. **vernonioides** (Wild) Beentje

Helichrysum vernonioides Wild.

Flowering shoots 0.15–0.3 m high, radical leaves several, glabrous or nearly so; sparsely glandular; cauline leaves similarly glabrous and glandular; capitula 5–8 mm long, in dense globose terminal cymes 2.5–6 mm in diameter; involucre brownish, with a reddish apex and margins; florets 15–30, 3–5 mm long, glandular, but not puberulous; in frequently-burnt submontane grasslands. Also in Zambia and Tanzania.

Source. Wild (1983: 198); *F.T.E.A. Compositae* (2): 426 (2002).

Malawi. Nyika Plateau, 8 km N. of Lake Kaulime, 1970, *Brummitt 11933* (K, SRGH).

Helichrysum nitens Oliv. & Hiern subsp. **nitens**

Perennial herb with rosette of large leaves and a solitary stem 0.2–0.8 m; leaves grey or whitish, sessile, those of rosette ovate to lanceolate, 40–150(–300) x 7–35 mm, densely tomentose on both surfaces, the indumentum sometimes peeling to show the glandular leaf surface; capitula 15–23 mm long in lax terminal cymes; involucre shiny yellow or tinged bronze or brown; florets yellow, 3.7–4.7 mm long; achenes cylindric, 0.9–1.3 mm long; in montane grassland, often among rocks. Tanzania, Angola, Malawi, Mozambique, and Zimbabwe.

Source. Patel (1999); Mill (1979); *F.T.E.A. Compositae* (2): 433 (2002).

Malawi. Nyika National Park, Chosi Point, 2000, *Kasakula 194* (LMA, MAL, SRGH); *ibid.*, 2000, *Koekemoer 1686* (PRE); Chelinda Dam, 2000, *Chapama 192* (MAL); Mpopoti Peak, 2000, *Willis & Luhanga 97* (PRE).

Helichrysum nudifolium (L.) Less. var. **nudifolium**

Helichrysum leiopodium DC.; *Helichrysum gerberifolium* A.Rich.; *Helichrysum coriaceum* Harv.; *Helichrysum plantaginifolium* C.H.Wright; *Helichrysum nudifolium* (L.) Less. var. *leiopodium* (DC.) Moeser

Herb with annual stems from a perennial rootstock, 0.1–1.5 m high; rootstock crowned with old fibrous leaf bases; leaves thin to coriaceous, radical leaves elliptic to almost round, up to 50–150(–340) x 10–40(–80) mm, in a loose rosette, mucronate, cobwebby or white-woolly or minutely puberulous; cauline leaves sessile, broad-based and clasping, loosely tomentose; flowers 4–8 mm long, in large corymbose panicles; involucre bracts pale brown or lemon-yellow; in grassland, especially after a burn, often in stony or rocky sites, or on swampy ground, may form large patches. Ethiopia to Angola and South Africa.

Source. Patel (1999); Mill (1979); *F.T.E.A. Compositae* (2): 422 (2002); Patel & Overton (2002).

Malawi. Nyika National Park, Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1677* (PRE); Southern Circular route to Chelinda Bridge, 10° 37' 40"S, 33° 48' 21"E, 2000, *Koekemoer 1806* (PRE).

No country given. 1967, *Richards 22477* (UZL).

Helichrysum nudifolium (L.) Less. var. **pilosellum** (L.f.)

Beentje

Helichrysum pilosellum (L.f.) Less.; *Helichrysum latifolium* (Thunb.) Less.

Herb 0.15–0.6 m high; rootstock crowned with old fibrous leaf-bases which are brown silky-woolly; stems several to many; leaves narrowing to a clasping base, blade mucronate, long-pubescent with coarse hairs or scabrid above; involucre brown; florets yellow or orange, 20–60, tube 2.6–3.5 mm long; in regularly-burned grassland. Kenya, Uganda, Tanzania, D.R.C., Zambia, Malawi, Mozambique, Zimbabwe, and South Africa.

Source. Patel (1999); *F.T.E.A. Compositae* (2): 423 (2002); H. Beentje, pers. comm.

Malawi. Nyika National Park, 2 km N.W. of Lake Kaulime, 1970, *Brummitt 11929* (K); Nyika Plateau, Majimbula Road, 1975, *Pawek 10302* (K).

Helichrysum odoratissimum (L.) Sweet

Helichrysum rosmarinum Mattf.; *Helichrysum engeleri* O.Hoffm.

Decumbent and erect perennial herb or woody herb, 0.3–1.2 m high, sometimes scrambling to 2 m; stems glandular, thinly white- or grey-lanate, often winged; leaves smelling of curry, linear to lanceolate, 5–60 x 2–15 mm, greyish white woolly on lower surface, aromatic; heads in dense or loose

flattened or rounded, terminal cymose clusters; capitula 3–5 mm long; flowers yellow, 2.2–2.4 mm long; outer involucre bracts pale brown, inner bright or pale canary-yellow; on grassy or rocky slopes, colonize bare areas e.g. roadsides, forest margins. Kenya, Uganda, Tanzania, D.R.C., Zimbabwe, Malawi, Mozambique, and South Africa.

Source. Patel (1999); Dowsett-Lemaire (1985); Mill (1979); *F.T.E.A. Compositae* (2): 410, 450, 452 (2002).

Malawi. Nyika National Park, Jalawe Viewpoint, 10° 21' 44"S, 33° 47' 49"E, 2000, *Koekemoer 1871* (PRE).

No country given. 1962, *Fanshawe 7372* (UZL).

Helichrysum patulifolium Baker

Helichrysum giorgii De Wild.; *Helichrysum flammeiceps* Brenan

Perennial herb or shrublet, 0.6–1.2 m high, with several stems from a woody rootstock; stems pale reddish brown, white-pubescent, with some glandular hairs, densely leafy; leaves linear, spreading or recurved, sessile, 5–28 x 1–3 mm, with glandular hairs above, white-tomentose beneath, margins revolute; capitula 7–11 mm long, many together in leafy corymbs; involucre bracts shiny yellow or orange, margins often erose; florets yellow or orange, 2–3.5 mm long; in montane grassland, on steep slopes or ridge crests. Tanzania, D.R.C., Zambia, and Malawi.

Source. Patel (1999); Brummitt (1972); Mill (1979); *F.T.E.A. Compositae* (2): 428 (2002).

Malawi. Nyika Plateau, 1946, *Brass 17218* (K, BM, MO, SRGH); W. foot of Nganda, 1972, *Brummitt, Munthali & Syngé 42* (K, MAL, SRGH, LISC, EA); 4 km W.N.W. of Muzengapakweru, 1972, *Brummitt & Syngé 99* (K, MAL, SRGH, LISC, EA); between Chelinda Camp and Dembo River crossing, 10° 31' 54"S, 33° 50' 47"E, 2000, *Koekemoer 1770* (PRE);

No country given. 1967, *Richards 22672* (UZL).

Helichrysum pawekiae Wild

Perennial herb to 0.8 m high; leaves sessile, 90 x 15 mm, elliptic-oblong; capitula ca 3 mm diameter in dense terminal corymbs; florets ca 15, 3 mm long; achenes 0.5 mm long; pappus numerous; in miombo woodland, montane grassland or forest edges. Apparently confined to northern Malawi. Closely related to *H. nudifolium* (L.) Less.

Source. Wild (1983: 195); H. Beentje, pers. comm.

Malawi. Nyika National Park, lower Mondwe R., 1972, *Syngé 282* (K); 0.5 miles S. of Chelinda, 1977, *Phillips 2306* (K).

Helichrysum quartinianum A.Rich.

Helichrysum antunesii Volk & O.Hoffm.

Perennial herb with several stems from a thick rootstock, 0.2–0.6 m high; leaves pale grey-green, sessile, elliptic to lanceolate, 20–110 x 4–20 mm, grey- or whitish-tomentose on both surfaces, 3–5-veined; capitula 8–11 mm long, in dense subglobose glomerules; involucre shiny white or cream, radiating; florets yellow or orange, 47–90, 4–5.5 mm long; in grassland or wooded grassland, especially areas that is regularly burned. Widespread in tropical Africa.

Source. *F.T.E.A. Compositae* (2): 438 (2002).

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

Helichrysum setosum Harv.

Perennial herb or shrub 0.2–1.5 m high, densely branched, viscid and aromatic; leaves sessile, lanceolate 20–75 x 5–20 mm, smaller upwards, both surfaces and margins glandular-setose, margins and midline above sometimes woolly; capitula 8–12(–14) mm long, depressed-globose, solitary at tips of long leafy branchlets corymbosely arranged; involucre shiny bright or golden yellow, spreading; florets yellow or orange, several hundred, 2.2–3.3 mm long; in montane grassland. Kenya, Uganda, Tanzania, D.R.C., Rwanda, Burundi, Zambia, and Zimbabwe.

Source. *F.T.E.A. Compositae* (2): 436 (2002).

Malawi. Nyika National Park, Dembo Bridge, 2000, *Thera 3014* (MAL); without locality or collecting details (Mill 1979).

Helichrysum splendidum (Thunb.) Less.

Gnaphalium splendidum Thunb.; *Helichrysum abyssinicum* (Sch.Bip.) A.Rich.; *Helichrysum hendersonae* S.Moore

Woody virgate herb or shrublet 0.1–1.5 m high; leaves silvery-grey, sessile, linear to lanceolate, 10–30(–40) × 1–2(–6) mm, margins revolute, upper surface thickly or thinly greyish woolly or glabrous, lower greyish woolly; involucre bright canary-yellow, rarely orange; heads hemispherical, many in congested or open corymbose panicles; capitula 4–6 mm long; flowers yellow, 40–55(–105), 2.1–3 mm long; among rocks and in crevices at high altitudes, rocky places, on forest margins, in stream gullies, and on mountain tops. Tanzania, Sudan, Ethiopia, Malawi, Zimbabwe, and South Africa.

Source. *F.T.E.A. Compositae* (2): 414 (2002); H. Beentje, pers. comm.

Malawi. Nyika National Park, without localities or collecting details (Mill 1979, Patel 1999); Nyika Plateau, 1903, *Henderson* s.n. (BM) [type of *H. hendersonae*].

No country given. 1967, *Richards 22441* (UZL).

Helichrysum sulphureo-fuscum Baker

Perennial herb with stems to 0.5 m high from a woody rootstock; leaves green above, whitish beneath, sessile, linear, rosette leaves 30–70 × 2–4 mm; capitula 11–20 mm long; involucre pale orange-yellow with blackish green or dark brown tips; florets yellow, 1.6–2.4 mm long; in montane grassland. Tanzania, D.R.C., Malawi, Mozambique, and Zimbabwe.

Source. Patel (1999); Mill (1979); *F.T.E.A. Compositae* (2): 433 (2002).

Malawi. Nyika Plateau, 1896, *Whyte 132* (K).

Helichrysum tillandsiifolium O.Hoffm. ●

Helichrysum chamaethamnus Mattf.

Perennial cushion-forming herb to 1 m in diameter, flowering stems to 100–200 mm high; leaves silvery-grey beneath, sessile, linear, 10–35 × 1–3 mm; capitula 3.5–6 mm long, 10–20(–30) together in terminal corymbs; involucre pale brown; florets yellow, 40–55, 2.3–3 mm long; achenes cylindrical, 0.5–0.9 mm long, glabrous; pappus white, 2–2.5 mm long, caducous in groups; on rocky outcrops in montane grassland. Tanzania, D.R.C., Rwanda, Burundi, and Malawi.

Source. Mill (1979); *F.T.E.A. Compositae* (2): 412, 452 (2002); Patel & Overton (2002).

Malawi. Nyika National Park, Domwe Viewpoint, 2000, *Salubeni & Mwanyambo 6800* (MAL); *ibid.*, 2000, *Mwanyambo 568* (MAL); Mpopoti Peak, 2000, *Willis & Luhanga 95* (PRE).

Helichrysum tithonioides Wild

Perennial herb to 0.3 m high; stems decumbent; leaves to 40 × 3 mm; capitula 15 mm diameter, solitary or 2–4 together, peduncles swollen; florets yellow, 2.8–3 mm long; cypselas brown, ellipsoid, 0.7 mm long, papillose; in marshy ground. Endemic to the Nyika Plateau. This species appears to be unique in that the characteristically swollen peduncles are not found in any other species of the genus.

Source. Patel (1999); Wild (1983: 197).

Malawi. Nyika Plateau, Chelinda area, *Pawek 12269* (SRGH, holo., K, MO, UC); Lake Kaulime, 2000, *Mwanyambo 496* (MAL); *ibid.*, 1962, *Tyrer 689* (BM, SRGH); *ibid.*, 1970, *Brummitt 10792 & 11912* (K, SRGH).

Hirpicium angustifolium (O.Hoffm.) Roessl. ❖

Gazania angustifolia O.Hoffm.

Tufted perennial herb 0.03–0.3 m high, from a small rootstock; stems annual, 1–3, purplish, usually simple; main leaves basally crowded, 100–300 mm long, filiform-linear; upper surface sparsely scabrid to glabrous; lower surface araneose-lanate; capitula solitary and terminal, involucre 5–10 mm diameter, connate (3)–7 × 4–7 mm; rays 15–20 mm long, yellow, often brown or purplish outside; disc florets yellow, 4.5–5.5 mm long; a pyrophyte in burned, seasonally flooded grassland. Malawi, D.R.C., Tanzania, and Zambia.

Source. Brummitt (1973); Mill (1979); *Flora zambesiaca* 6(1): 251 (1992).

Malawi. Nyika Plateau, 13 km from Chelinda Camp on road to main gate, 1970, *Brummitt 11867* (PRE).

Hypericophyllum compositarum Steetz ❖

Jaumea compositarum (Steetz) Benth. & Hook.; *Jaumea johnstonii* Baker

Erect perennial up to 1.2 (–2.4) m high; leaves sessile or nearly so, simple, opposite, 10–180 × 10–60 mm, margins entire or undulate; inflorescence

cymose; capitula 3–21; florets bright orange-red or red, corolla 10–12 mm long; an infrequent plant of miombo woodland, usually on rocky granite outcrops or escarpments. Malawi, Zambia, Zimbabwe, Mozambique, and Tanzania.

Source. Pope (1975: 107).

Malawi. Nyika Plateau, 1896, *Whyte 228* (K) [syn. of *Jaumea compositarum*].

Inula glomerata Oliv. & Hiern

Inula claessensii De Wild.; *Inula acervata* S.Moore

Robust perennial herb up to 1.5 m high; basal leaves in a rosette, 300–600 × 120–320 mm, petiolate, petiole to 220 mm long, leaves ovate, denticulate, tomentose; capitula 8–12 mm long, heterogamous, several in dense glomerules 20–40 m in diameter, glomerules arranged in large leafy panicles; florets yellow, all tubular; in miombo woodland, wooded grassland, grassy mountainsides. Kenya to Angola and South Africa.

Source. Patel (1999); Mill (1979); *F.T.E.A. Compositae* (2): 324, 325 (2002).

Malawi. Nyika National Park, between viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer 1709* (PRE).

Inula mannii (Hook.f.) Oliv. & Hiern

Vernonia? mannii Hook.f.; *Laggera heteromalla* Vatke; *Vernonia myriotricha* Baker

Perennial herb with basal leaf rosette; flowering branches one to several, 0.9–3 m high; basal leaves ovate or elliptic, aromatic, 350–900 × 120–200 mm, short-petiolate, margins dentate, both surfaces tomentose; capitula 8–13 mm long, heterogamous, in dense terminal, leafy corymbs; florets dull red or purplish, 3.6–5.7 mm long, glandular; achenes cylindrical, 1.2–2 mm long, glabrous; pappus 3–4.5 mm long; in forest margins, montane scrubland. Kenya, Uganda, Tanzania, Cameroon, D.R.C., Rwanda, Ethiopia, and Malawi.

Source. *F.T.E.A. Compositae* (2): 326, 328 (2002).

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

Inula paniculata (Klatt) Burt Davy ❖

Inula macrophylla (A.Rich.) Sch.Bip.; *Monactinocephalus paniculatus* Klatt

Perennial herb with basal leaf rosette, flowering stem 0.6–2.4 m high; basal leaves elliptic or oblanceolate, 300–600 × 70–125 mm, petiolate, petiole 50–100 mm long, margins coarsely dentate, both surfaces tomentose; capitula 5–9 mm long, heterogamous, in dense terminal corymbs or panicles; florets yellow, 3–4.2 mm long, glandular; in grassland in marshy areas; flowering October to January. W. Africa to Ethiopia and southwards to South Africa.

Source. *F.T.E.A. Compositae* (2): 325, 324 (2002).

Malawi. Nyika National Park, without locality or collecting details (Patel 1999); without locality, 2000, *Winter 4153* (MAL).

Inula shirensis Oliv.

Bojeria vestita Baker; *Inula bakeriana* O.Hoffm.; *Erythrocephalum erectum* Klatt

Perennial herb with large basal leaves and a flowering stem 0.3–1.5 m high; basal leaves 150–450 × 70–260 mm, petiolate, petiole to 100 mm long, margins sinuate-crenate, pilose on both sides; capitula 22–40 mm long, heterogamous, solitary or up to 4 in a corymb; florets glandular, ray florets bright yellow, ray 8–14 × 1.5–2 mm; inner florets cylindrical, 7–7.5 mm long; in miombo woodland and veld. Tanzania, D.R.C., Burundi, Zambia, Malawi, and Mozambique.

Source. Patel (1999); Brummitt (1973); Mill (1979); *F.T.E.A. Compositae* (2): 323 (2002).

Malawi. Nyika National Park, W. foot of Nganda, 1972, *Brummitt, Munthali & Syngé 43* (K, MAL, SRGH, LISC).

Lactuca calophylla C.Jeffrey

A subscape perennial herb to 0.75 m high; leaves 1–6 in a basal rosette; inflorescence up to 0.25 m long; capitula numerous; florets 4–6 per capitulum, corollas yellow; ligule 9–12 × 2.5–4 mm; achenes reddish brown, not beaked, 4.5–5.5 mm long; pappus numerous, barbellate; a pyrophyte, locally frequent in mountain grassland and high-rainfall woodland. Malawi,

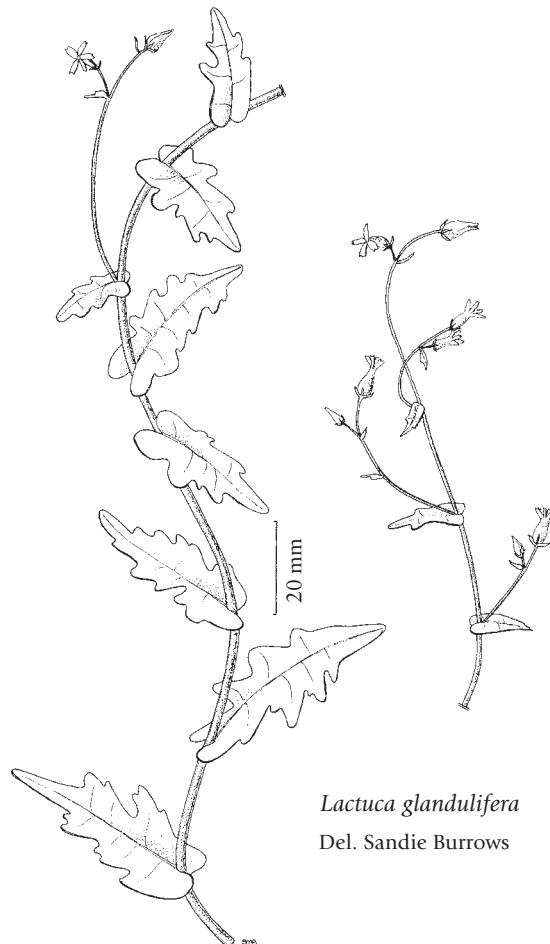
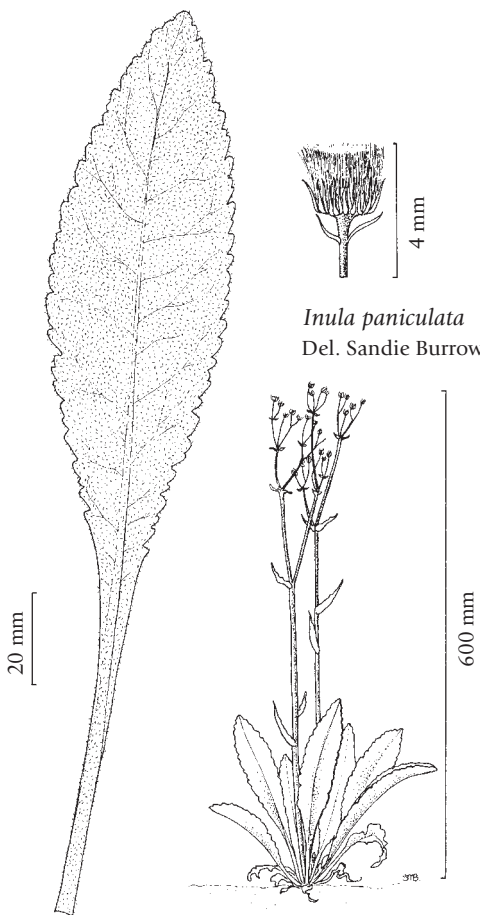
Hirpicium angustifolium
Del. Sandie Burrows



Hypericophyllum
compositarum
Del. Sandie Burrows



Inula paniculata
Del. Sandie Burrows



Lactuca glandulifera
Del. Sandie Burrows

Zambia, and Tanzania.

Source. Patel (1999); Mill (1979); *Flora zambesiaca* 6(1): 198 (1992).

Malawi. Nyika Plateau, Lake Kaulime, 2,250 m, 1959, *Richards 10456* (K); Nganda, 2000, *Winter 4078* (MAL).

Lactuca glandulifera Hook. ❖

Lactuca integrifolia DeWild.; *Lactuca glandulifera* var. *calva* (R.E.Fr.)

Robyns; *Sonchus ledermannii* R.E.Fr.

Creeping or scandent, sticky, short-lived perennial herb to 1.5(–3) m high; young growth reddish-purple and densely glandular or glabrescent; leaves to 105–120 x 50 mm, narrowly ovate-elliptic, usually 3- to 5-lobed or simple; capitula numerous, in panicles, densely glandular; involucre 10–14 x 2–3 mm; florets 5 per capitulum, ligule yellow, often purplish outside, to 6 x 1.5 mm; in montane evergreen forests and grassland, often as pioneer in disturbed areas. Known from southern Malawi and Mozambique northwards to W. Africa and Ethiopia. Not recorded for Nyika in *Flora zambesiaca*.

Source. *Flora zambesiaca* 6(1): 208 (1992).

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

Lactuca lasiorhiza (O.Hoffm.) C.Jeffrey

Sonchus lasiorhizus O.Hoffm.; *Sonchus quercifolius* Phillipson

An acaulescent perennial herb rarely more than 0.7 m high; root crown very densely brown sericeous-lanate with hairs ca 20 mm long; leaves radical, appearing after flowering, ca 90(–250) mm long, oblanceolate; capitula few to numerous, densely aggregate, to 100 mm diameter; corollas ca 16 mm long; rays yellow, sometimes becoming reddish-purple outside, ca 10 mm long; a pyrophyte of montane grassland, high-rainfall woodland or seasonally waterlogged grassland (dambos), flowering after fire. Widespread in tropical Africa.

Source. Mill (1979); *Flora zambesiaca* 6(1): 197 (1992).

Malawi. Nyika Plateau, road to Kasaramba, 2,250 m, 1967, *Richards 22581* (K).

Lactuca paradoxa Sch.Bip.

A scandent diffuse short-lived perennial herb up to 2 m high with stems up to 5 m long; leaves imparipinnately compound, up to 145 x 80 mm, narrowly ovate; inflorescence paniculate; capitula numerous; florets ca 5 per capitulum; corollas to 14 mm long; ligule yellow 6–8 x 1.5–2 mm; in high altitude evergreen forests, often as a pioneer of cleared forest. Malawi, D.R.C., Ethiopia, Uganda, Kenya, and Tanzania.

Source. *Flora zambesiaca* 6(1): 208 (1992).

Malawi. Nyika Plateau, Kafwimba Rainforest, 1,900 m, 1975, *Pawek 10051* (K, MAL, MO, SRGH, UC).

Lactuca praecox R.E.Fr.

A subscape perennial herb to 70–550 mm high, from a semi-woody rootstock, flowering stems 1-several; leaves appearing after flowering, sessile, linear-oblong or elliptic to ovate, margins ciliate-dentate; capitula numerous in panicle; involucre cylindrical 7–10 x 25 mm; florets 5 per capitulum, yellow, ligule 10–14 x 3–4.5 mm; a pyrophyte in montane grassland and *Brachystegia* woodland. Angola, D.R.C., Zambia, Tanzania, and Malawi.

Source. Brummitt (1973); Mill (1979); *Flora zambesiaca* 6(1): 198 (1992).

Malawi. Nyika National Park, valley of Nganda, 1972, *Synge 384* (K, MAL).

Laggera brevipes Oliv. & Hiern ❖

Blumea brevipes (Oliv. & Hiern) Wild.; *Laggera crispata* (Vahl) Hepper & J.R.I.Wood var. *appendiculata* (Robyns) Lisowski

Annual or perennial herb, 0.4–2 m high, aromatic, stems winged, wings 1–4 mm wide; leaves lanceolate, 20–120 x 7–50 mm, glandular, margins serrate; capitula 9–14 mm long, in large leafy panicles, to 400 x 200 mm; florets pink, mauve or purple, scented, outer florets >100, 4–5.8 mm long, inner florets 30–40, 5–6.3 mm long; in wooded grassland, miombo, waste ground. Kenya and Uganda to Angola and Zimbabwe; also in Madagascar.

Source. Patel (1999); *F.T.E.A. Compositae* (2): 355, 356 (2002); Patel & Overton (2002).

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

Laggera crispata (Vahl.) Hepper & J.R.I.Wood

Conyza crispata Vahl.; *Laggera alata* sensu auct. non (D.Don) Oliv.

Annual or perennial herb, 0.6–2.4 m, several stemmed, stems with entire or toothed wings to 5(–15) mm wide, densely glandular, plants viscid and aromatic; leaves often tinged purple, sessile, oblong to obovate, 30–270 x 8–110 mm decreasing in size distally, margins serrate; capitula 8–12 mm long, in panicles; florets pink, mauve or purple, outer florets 5–7 mm long, anthers pink; in waste ground, roadsides, streamsides, woodland, grassland. Throughout tropical Africa and tropical Asia.

Source. Patel (1999); Brummitt (1973); Mill (1979); *F.T.E.A. Compositae* (2): 353 (2002).

Malawi. Nyika National Park, Chipome Valley, 1972, *Synge 269* (K, MAL, SRGH).

Launaea nana (Baker) Chiov.

Lactuca nana Baker; *Sonchus nanus* O.Hoffm.

Acaulescent, cushion-like perennial herb; leaves 2–6, in rosettes, glabrous, up to 200 x 60 mm, sinuate-dentate to pinnately-lobed; capitula numerous, densely aggregate, 20- to 25-flowered; corollas yellow, 10–15 mm long, ligule becoming purplish-brown, 4–5 mm long; a pyrophyte of grassland and open miombo woodland; flowering August to November. Widespread in sub-Saharan Africa.

Source. *Flora zambesiaca* 6(1): 217 (1992).

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

Launaea rarifolia (Oliv. & Hiern) Boulos var. *rarifolia* ❖

Sonchus rarifolius Oliv. & Hiern; *Lactuca welwitschii* Scott-Elliot

Acaulescent cushion-like perennial herb up to 1 m high, or a small caespitose herb 30–150 mm high, often glaucous; leaves in rosettes, usually appearing after the flowers, to 250(–350) x 40(–55) mm, denticulate or coarsely dentate-lobulate; capitula few or many, involucre 12–15 x 2 mm, 6–12-flowered; corollas yellow, 13–15 mm long; in Nyika and at high altitudes they have dark-green phyllaries. A pyrophyte of grassland and miombo woodland; flowering August to November. Widespread in sub-Saharan Africa and in Madagascar.

Source. *Flora zambesiaca* 6(1): 215 (1992).

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

Lopholaena dolichopappa (O.Hoffm.) S.Moore ❖

Lopholaena pauciflora Thell.; *Lopholaena brevipes* Phillips & C.A.Sm.

Shrub 0.3–0.6 m high from a perennial woody rootstock, semi-succulent; leaves sessile, narrowly oblanceolate to spatulate 15–60 x 3–15 mm; capitula discoid, numerous, peduncles of individual capitula 12–70 mm long; florets 3–4, white or sometimes tinged lilac, exerted and exceeding the pappus at anthesis, anthers purple; in upland grassland where it may become common after burning. Tanzania, Zambia, and Malawi.

Source. *F.T.E.A. Compositae* (3) (unpublished ms.).

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

Melanthera albinervia O.Hoffm. subsp. *albinervia* ❖

Aspilia zombensis Baker; *Aspilia eylesii* S.Moore

Bushy perennial to 1 m high; branches square; leaves sessile or petiolate, to 120 x 40 mm, narrowly ovate to ovate or oblong to elliptic, scabrid; capitula orange or yellow, solitary at the end of long peduncles or in lax corymbs; peduncles to 120 mm long; receptacular paleae mucronate or acute, ca 1.7 mm long; ray florets to 20, ligule 6–11 mm long, 3-dentate at the apex; disc florets to 5 mm long; in savanna woodlands and woodlands. Caprivi Strip, Zambia, Zimbabwe, Malawi, Mozambique, Angola, Tanzania, and South Africa.

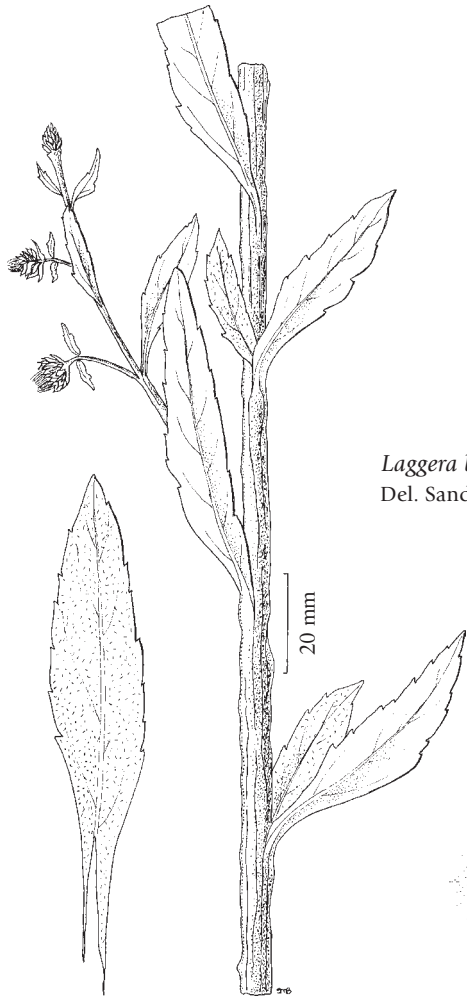
Source. Wild (1967: 52).

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

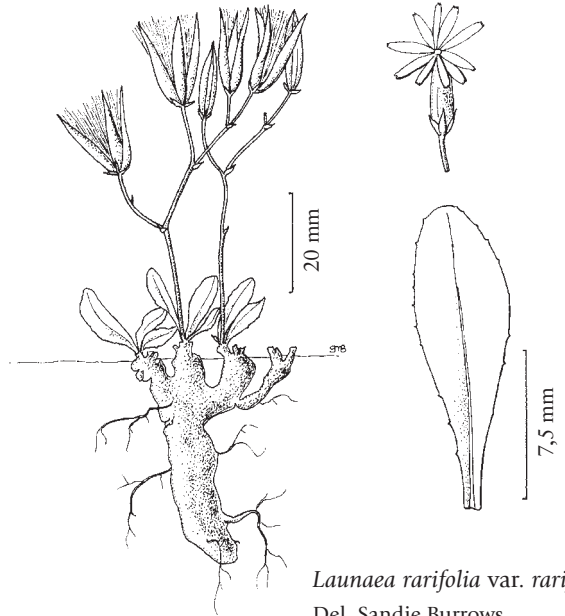
Microglossa densiflora Hook.f.

Microglossa longiradiata Wild.

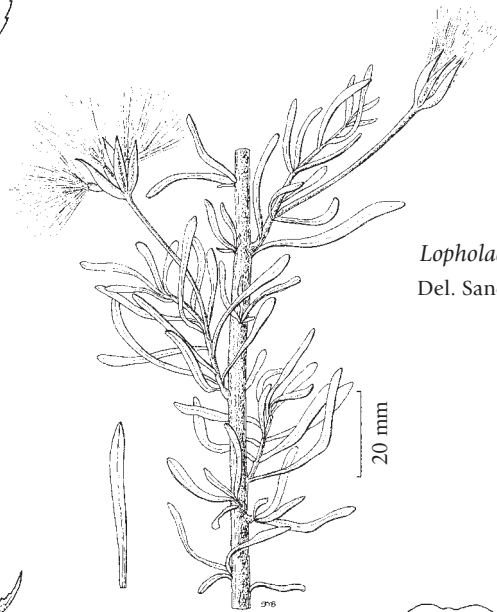
Scandent shrub 2–6 m long, or climber over trees to 7 m or more; leaves



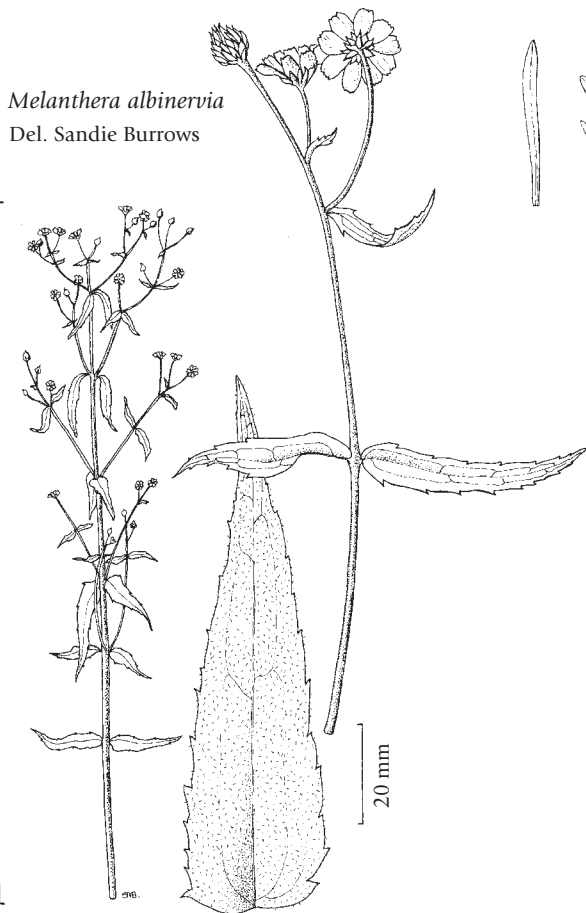
Laggera brevipes
Del. Sandie Burrows



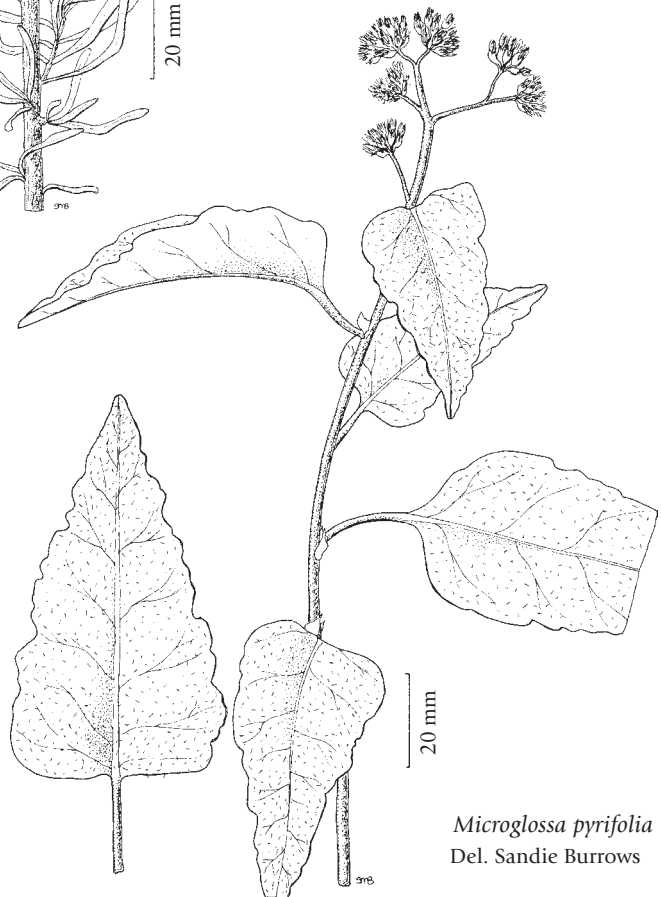
Launaea rarifolia var. *rarifolia*
Del. Sandie Burrows



Lopholaena dolichopappa
Del. Sandie Burrows



Melanthera albinervia
Del. Sandie Burrows



Microglossa pyrifolia
Del. Sandie Burrows

ovate to lanceolate, 10–140 x 20–75 mm, petiole 8–20 mm long; capitula ca 4–6 mm long, densely crowded in terminal many-headed corymbs, individual cymes with 6–20 capitula; ray florets white or cream, tube 1.5–2.2 mm long, linear or narrowly obovate, 1.5–3 x 0.4–0.7 mm; disc florets yellow, tube 1.7–4 mm long; in open areas, as well as forest margins and clearings. Uganda, Kenya, Tanzania, Cameroon, Bioko, D.R.C., Rwanda, Burundi, Zambia, Malawi.

Source. Mill (1979); Wild (1974: 293); Wild (1975: 29); *F.T.E.A.* Compositae (2): 484 (2002).

Zambia. Nyika Plateau, without locality, 1958, *Robson & Angus 185* (BM, K, LISC, PRE, SRGH); *ibid.*, 1958, *Robson & Angus 350* (BM, K, LISC, PRE, SRGH, UZL); Chowo Forest, 1967, *Richards 22537* (K).

Microglossa pyrifolia (Lam.) O.Kuntze ❖

Conyza pyrifolia Lam.; *Conyza volubilis* Wall.; *Microglossa volubilis* DC.; *Conyza heudelotii* Oliv. & Hiern

Climber, scandent shrub or small shrub to 6 m high; leaves ovate, 25–100 x 15–70 mm, slightly discoloured, petiolate, petiole 8–20 mm long; inflorescence of dense corymbose or subcorymbose cyme 50–200 mm wide; capitula 4–5 x 3–5 mm, in cymes of up to 24 and inflorescences of up to 1200 capitula; ray florets white, cream or pale yellow, ca 32, tube 1.8–2.6 mm long, ray filiform, 0.9–1.4 x <0.2 mm; disc florets cream or pale yellow, 3–6; climber or shrub in forest or at forest edges, in abandoned cultivation, wooded grassland, and streamsides. Widespread in tropical Africa southwards to Angola and Mozambique; also in Madagascar and tropical Asia.

Source. Dowsett-Lemaire (1975); *F.T.E.A.* Compositae (2): 482 (2002).

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

Nidorella auriculata DC. ❖

Nidorella obovata DC.; *Nidorella auriculata* DC. subsp. *polycephala* (DC.) Wild

Perennial herb 0.9–1.5 m high, with a single stem or several stems from a thickened rootstock; leaves sessile, narrowly panduriform to lanceolate, 40–80 x 10–20 mm, pubescent; capitula 3–4 mm long, several to many in dense globose cymes; axes of inflorescence white-pubescent and glandular; ray florets ca 40, golden-yellow, tube 1–1.2 mm long; disc florets ca 15, golden-yellow, tube 1.4–1.7 mm long; in disturbed areas, grassy slopes, marshy places or forest margins; flowering July–June. Widespread in tropical and southern Africa.

Source. Mill (1979); Wild (1975: 64); *F.T.E.A.* Compositae (2): 489 (2002).

Malawi. Nyika Plateau, 1959, *Richards 10493* (EA, K).

Nidorella resedifolia DC.

Nidorella rapunculoides DC.; *Nidorella pinmatilobata* DC.

Annual herb 0.3–1 m high; leaves pale green, narrowly obovate, 15–100 x 2–30 mm; capitula 2–5 mm long, united in lax corymbs or cymes; ray florets yellow, 40–58, ray 0.4–0.5 mm long and about as wide; disc florets yellow, 9–20, tube 1.3–1.5 mm long; achenes ellipsoid, 0.7–1.1 mm long, pubescent; pappus of 11–15 barbellate setae 1.5–2 mm long. Cultivated land and waste places such as roadsides. Kenya, Tanzania, D.R.C., Angola, Zambia, Malawi, Mozambique, Zimbabwe, Botswana, and South Africa.

Source. *F.T.E.A.* Compositae (2): 489 (2002).

Malawi. Nyika National Park, Southern Circular route at Chelinda Bridge, 10° 40' 15"S, 33° 51' 21"E, 2000, *Koekemoer 1783A* (PRE).

No country given. 1967, *Richards 22431* (UZL).

Nidorella spartioides (O.Hoffm.) Cronquist

Conyza spartioides O.Hoffm.; *Nidorella malosana* Baker

Erect perennial herb with numerous stems from a woody rootstock, 0.3–0.9 m high; leaves not aromatic, sessile, linear to narrowly ovate, 5–40 x 1–14 mm; inflorescence of dense subglobose cymes; capitula 3–5 mm long, 2–8 together in subglobose cymes; marginal florets yellow, 30–40, tube 1.4–1.7 mm long, 4–5-lobed; disc florets yellow, 22–40, tube 2.1–2.5 mm, papillose-pilose outside; achenes ellipsoid, 0.8–1.2 mm long, pubescent; pappus of 15–25 barbellate to subplumose setae; in submontane grassland and regularly burnt woodland. Malawi, Zambia, and Angola northwards to Nigeria, Sudan, and Kenya.

Source. Patel (1999); Mill (1979); Wild (1975: 71); *F.T.E.A.* Compositae (2): 489 (2002).

Malawi. Nyika Plateau, 1959, *Richards 10491* (BR, EA, K, SRGH).

Osteospermum monocephalum (Oliv. & Hiern) T.Norl. ❖

Tripteris monocephala Oliv. & Hiern; *Tripteris rhodesica* R.E.Fr.; *Tripteris gweloensis* Mattf.

Perennial herb, 0.05–0.7 m high, stems 1–several from an underground stem; stems sticky; leaves distant, obovate, 20–70 x 2–30 mm, glandular-hairy; capitula 5–8 mm long, sweetly-scented at anthesis, nodding in fruit; ray florets 12–18, ray 12–24 x 3–5 mm, yellow to orange; disc florets numerous, up to 10 mm long, yellow; achenes 13–20 mm long, 3-angular, 3-winged, pale yellow turning crimson or purple; a pyrophyte in annually burned grassland on rocky hillsides. Malawi, Burundi, and Tanzania to Angola and Zimbabwe.

Source. Patel (1999); Brummitt (1973); Mill (1979); *F.T.E.A.* Compositae (2): 532 (2002).

Malawi. Nyika National Park, E. foot of Nganda, 1972, *Synge 363* (MAL, SRGH, BR).

Osteospermum nyikensis T.Norl.

Suffruticose perennial; stems ascending, to 2 m long, glandular-pubescent; leaves alternate, glandular-pubescent or nearly glabrous, to 60 x 20 mm, margins distantly toothed, teeth to 5 mm long; capitula arranged in a corymbose inflorescence, fruit-bearing heads nodding; ray florets equal in number to the involucre bracts, ligule yellow, about 4–5 times as long as involucre; disc florets yellow; cypselas hard, triangular-obovoid, 5–6 mm long, 3-winged, wings half-transparent, 1–1.5 mm wide; on rocky slopes with shrub and grass cover; ca 2,000 m. Endemic to the Nyika Plateau.

Source. Patel (1999); Norlindh (1978: 156).

Malawi. Nyika National Park, Kawozya Hill, 1972, *Brummitt & Synge WC211* (K, holo., MAL, S, SRGH, iso.); Nyika Plateau, 1896, *Whyte 169* (K).

Pentanema indicum (L.) Ling ❖

Inula indica L.; *Vicoa auriculata* Cass.; *Inula leptoclada* Webb

Annual herb, 0.2–1.5 m high; leaves alternate or subopposite, sessile, narrowly lanceolate, 15–100 x 2–20 mm, margins crenate, glandular beneath; capitula 5–8 mm long, in lax panicles; phyllaries glandular, becoming reflexed after achene dispersal; florets orange-yellow, tubular, tube 2.8–3.5 mm long; achenes narrowly ellipsoid, 1–1.2 mm long; pappus 2–3.5 mm long; a pioneer in drying swampy sites; also a crop weed. From Senegal to Ethiopia and southwards to the Zambezi River; also Pakistan, India, Sri Lanka, and Burma.

Source. *F.T.E.A.* Compositae (2): 334 (2002).

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

Pleiotaxis pulcherrima Steetz ❖

Pleiotaxis latisquama S.Moore

An erect suffrutex, 0.2–0.8 m high; stems 1–several, annual; leaves discoloured, lanceolate, 60–240 x 20–70 mm, base sheathing the stem; capitula terminal, solitary or 2–4, 20–35 x 12–20 mm; florets numerous, bright red, to 25 mm long; phyllaries 4–24 mm long; achenes 7–11 mm long, hispid; pappus copious, barbellate, 7–17 mm long; in miombo woodland on rocky hillsides or on sandy soil, and in grassland. Zambia, Malawi, Mozambique, Angola, D.R.C., Rwanda, Burundi, and Tanzania.

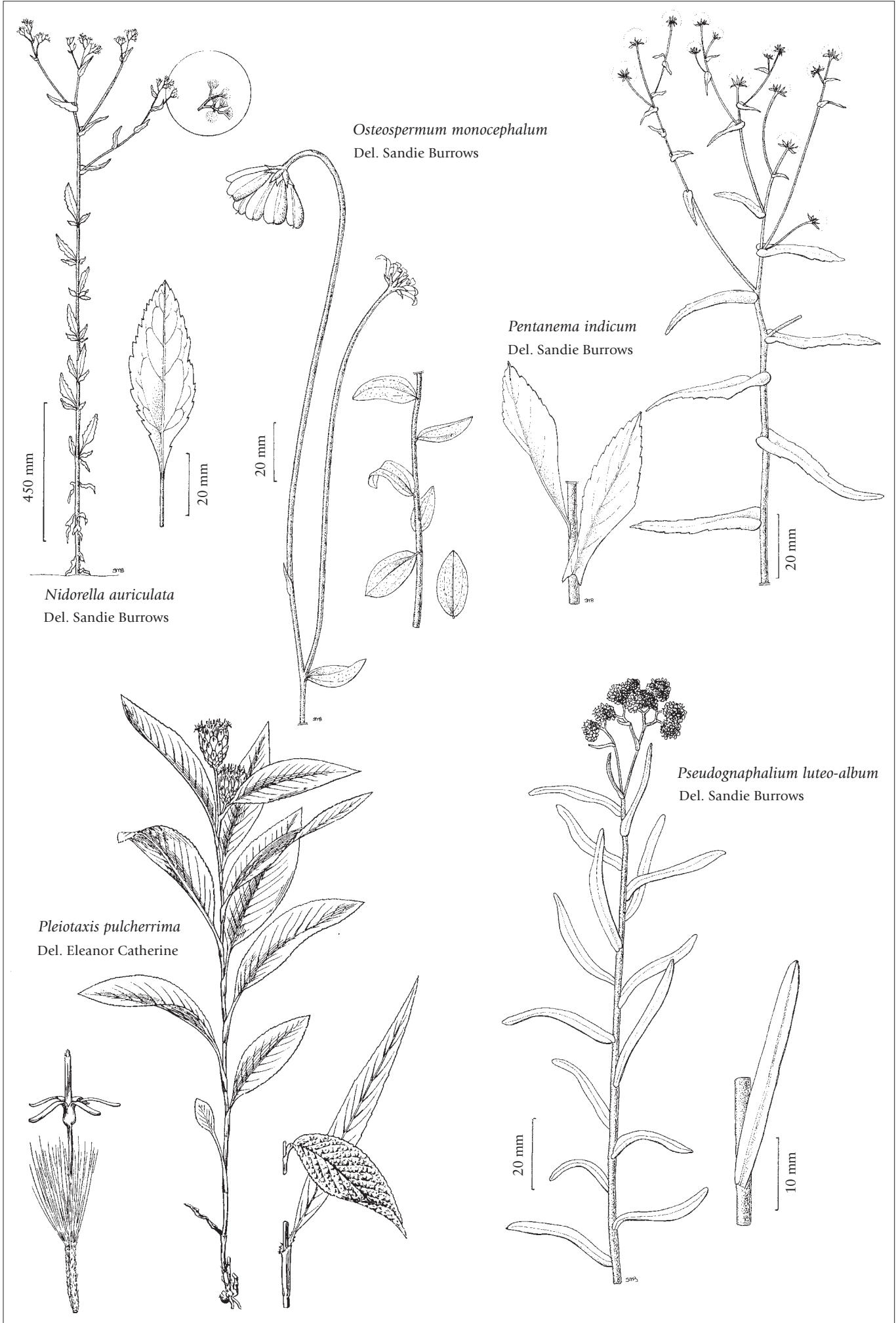
Source. *Flora zambesiaca* 6(1): 12 (1992).

Malawi. Nyika Plateau, 1973, *Pawek 6571* (K, MAL, MO).

***Pseudognaphalium luteo-album** (L.) Hilliard & Burt ❖

Gnaphalium luteo-album L.; *Gnaphalium oligandrum* (DC.) Hilliard & B.L.Burt

Decumbent or erect annual herb 0.4–1 m high, all parts whitish-woolly; lower leaves oblanceolate, 10–80 x 3–8 mm, decreasing in size and becoming lanceolate to linear upwards, not discoloured; inflorescences of dense glomerules in large corymbose panicle; capitula 3–5 mm long; outer female florets yellow, > 100, filamentous, 1.8–2.3 mm long; disc florets 10–30, 1.5–1.8 mm long; in montane grassland, sandy or clayey soils near streams and marshes, weed of cultivation. Widespread as a weed in the



tropics and subtropics.

Source. Mill (1979); Wild (1980: 75); Hilliard (1983: 26); *F.T.E.A.* Compositae (2): 399 (2002).

Malawi. Nyika Plateau, Lake Kaulime, 1958, *Robson 319* (K, PRE, SRGH).

Schistostephium artemisiifolium Baker ❖

Schistostephium homblei De Wild.; *Schistostephium microcephalum* Baker

Perennial herb with annual shoots from a horizontal rootstock; shoots several, to 0.9 m high, pubescent; leaves grey-green, pinnatifid, broadly ovate in outline, 10–50 x 2–30 mm, pubescent on both surfaces; capitula 4–6 mm long, in terminal corymbs; florets yellow; outer florets few, tube 1 mm long; inner florets >50, tube 1.3–2 mm long; achenes dorsiventrally flattened, angled or winged, 1.5–1.6 x 0.8–0.9 mm. Miombo or wooded grassland. Flowering December to July. Tanzania, D.R.C., Zambia, Malawi, Mozambique, and Zimbabwe.

Source. Patel (1999); Brummitt (1973); Mill (1979); *F.T.E.A.* Compositae (2): 526 (2002).

Malawi. Nyika National Park, W. slopes of Nganda, 1972, *Brummitt & Syngé 62* (K, MAL, SRGH, LISC); Zungwara Circular Road, 2000, *Thera 3068* (MAL); Jalawe Viewpoint, 10° 21' 41"S, 33° 47' 51"E, 2000, *Koekemoer 1862* (PRE).

Schistostephium mollissimum Hutch.

Schistostephium heptalobum S.Moore (1911), non Oliv. & Hiern (1877)

Slender, lax subshrub to 1.2 m high, all parts thinly hairy; leaves sessile, up to 40 mm long, pinnatisect, lobes in 3 or 4 pairs; capitula small, subglobose, up to about 20 corymbosely arranged; flowers bright yellow; on forest margins and in montane scrub. Extra-Malawian distribution uncertain.

Source. Mill (1979).

Malawi. Nyika National Park, 5 miles S.E. of Chelinda on Kasaramba Rd, 1976, *Pawek 11202* (PRE); between Viewpoint and Chisanga Falls, 10° 32' 31"S, 33° 41' 07"E, 2000, *Koekemoer 1712* (PRE).

Senecio erubescens Aiton

Senecio ianthinus Mattf.

Decumbent or erect perennial herb 0.3–0.6 m high, rosette-forming; basal leaves sessile, broadly oblanceolate, 70–210 x 9–700 mm, densely glandular pilose, margins coarsely toothed to denticulate; capitula discoid, 3 to many in lax terminal corymb; disc florets purple, mauve or rarely yellow; achenes 3–3.7 mm long, hispid between ribs; pappus 6–8.5 mm long; in grassland, often in boggy sites; flowering September–June. Tanzania, D.R.C., Angola, Zambia, Malawi, Zimbabwe, Botswana, Swaziland, and South Africa.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Senecio hochstetteri Sch.Bip.

Senecio lugardiae Bullock

Perennial herb 0.25–1.2 m high, rhizomatous, rosette-forming, viscid, stems 1–several from the rosette; basal leaves sessile, narrowly to broadly oblanceolate, 80–380 x 10–100 mm; flowers appearing with or after leaves; capitula discoid, 3 to many in lax or congested corymbs; disc florets white, cream or pale yellow, corolla 5–10 mm long; achenes 2–3.5 mm long, ribbed, shortly hairy; pappus white 5–8 mm long; in grassland, occasionally on forest margins or in wooded grassland. Widespread throughout tropical Africa.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.); Brummitt (2002).

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

Senecio inornatus DC.

Senecio lygodes Hiern; *Senecio stolzii* Mattf.

Erect perennial herb 1–2 m high, stems winged in lower part; basal leaves sessile, elliptic-lanceolate, 200–730 x 15–100 mm, gradually attenuate basally, margins denticulate; capitula radiate, numerous in a lax or congested terminal corymb; ray florets yellow, corolla tube 2.5–4 mm long, glandular-hairy; disc florets bright yellow, corolla 5–8 mm long; in up-

land grassland, on forest margins, often abundant near streams. Tanzania, D.R.C., Burundi, Angola, Zambia, Malawi, Zimbabwe, South Africa.

Source. Patel (1999); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, South Circular Route, 10° 39' 54"S, 33° 45' 06"E, 2000, *Koekemoer 1841* (PRE).

Senecio latifolius DC.

Senecio sceleratus Schweick.

Perennial herb to 1 m high; crown and lowest nodes woolly, wool hidden deep in leaf axils; leaves glabrous, uniform; heads radiate, rays 5; involucre bracts 7 or 8, (4–)5.5–6.0(–7.0) mm long; achenes glabrous; flowers bright yellow; in grassland or open woodland; flowering July–June. South Africa to Malawi and Angola.

Source. Hilliard (1977: 486).

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

Senecio oxyriifolius DC.

Senecio orbicularis Sond. ex Harv.; *Senecio peltatus* DC.

Glabrous, sometimes glaucous, fleshy perennial herb, rootstock somewhat creeping, tuberous, tubers woody; flowering stems usually one, to 1 m high; leaves fleshy, up to 25–60 x 38–95 mm, petiole 25–80 mm long; capitula discoid, few to many, corymbose-paniculately arranged; disc florets pale to golden yellow; achenes 2.5–3.2 mm long; pappus 4.7–5 mm long; in grassland to bushed grassland, often in rocky sites. South Africa, Zimbabwe, Malawi, Angola, Zambia, Mozambique, and Tanzania.

Source. Hilliard (1977: 473); *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Senecio pachyrhizus O.Hoffm.

Senecio dekindtianus Volkens & O.Hoffm.; *Senecio adustus* S.Moore

Dwarf perennial herb with woody rootstock, multi-stemmed forming small cushions 50–160 mm high; leaves all basal, oblong to elliptic, 130–250 x 10–45 mm, long-attenuate into petioid base, margins crenate-serrate, stem-leaves scale-like; capitula erect, discoid, terminal, usually solitary; disc florets white or cream, anthers fully exerted, corollas 15.5–20 mm long; pyrophytic in upland grassland, flowering about a month after fire, in large clumps or cushion-forming. Uganda, Tanzania, Cameroon, D.R.C., Angola, Zambia, and Malawi.

Source. Patel (1999); Brummitt (1973); Mill (1979); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, Sawi Valley, 1972, *Syngé 434* (K, MAL, SRGH).

Senecio pergamentaceus Baker ❖

Perennial herb, 600–800 mm high, crown of rootstock woolly; stem leaves sessile, ovate to lanceolate, the median largest, 100–150 x 33–45 mm, margins entire; capitula radiate, numerous in lax corymb; involucre cylindrical, 5.5–6 mm long; ray florets 4–5, yellow, corolla tube 3.5 mm long, rays 8–13 x 2–2.5 mm, 4-veined; disc florets yellow, tube abruptly expanded above the middle; achenes 5 mm long, glabrous, ribbed; pappus 5 mm long, white; in secondary woodland or grassland with *Protea*. Tanzania, Zambia, and Malawi. This taxon is essentially *S. semiamplexifolius* with rays (*F.T.E.A.*).

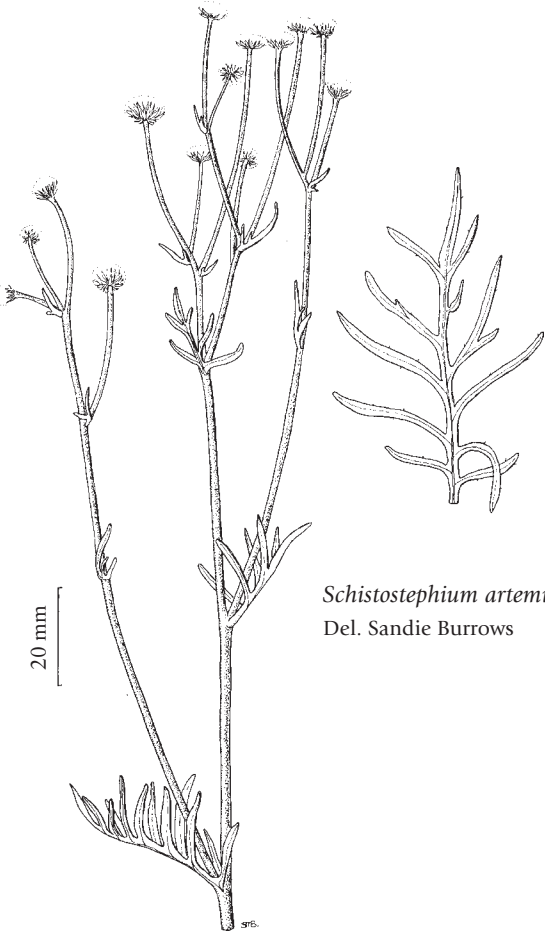
Source. Mill (1979); *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, South Circular Route, 10° 38' 23"S, 33° 45' 46"E, 2000, *Koekemoer 1825* (PRE); between Chelinda Bridge and Dembo River crossing, 10° 32' 38"S, 33° 50' 33"E, 2000, *Koekemoer 1747* (PRE).

Senecio ruwenzoriensis S.Moore

Senecio othonniformis Fourcade; *Senecio paucifolius* DC.

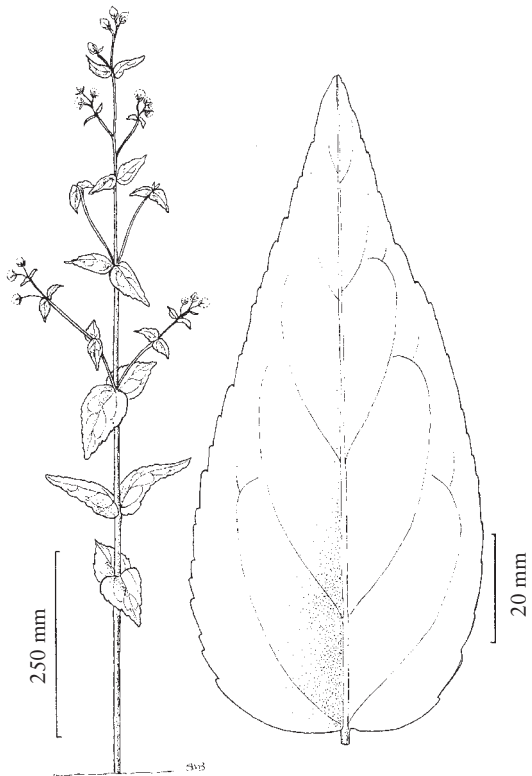
Perennial herb to 1 m high; leaves somewhat fleshy, glabrous, obovate to almost rhombic, 25–115 x 10–53 mm, with two prominent lateral veins from the base, margins entire or distantly callose-denticulate; capitula radiate, 1–20 in lax terminal corymb; rays 5–8, pale to bright yellow, lamina 5–11 x 1.5–3.5 mm, 4-veined; disc florets yellow; in grassland, particularly in shallow soil around rock outcrops, sometimes by streams or as a weed in cultivation. Kenya, Uganda, Tanzania, Nigeria to Sudan, southwards to



Schistostephium artemisiifolium
Del. Sandie Burrows



Senecio pergamentaceus
Del. Sandie Burrows



Sigesbeckia abyssinica
Del. Sandie Burrows



Solanecio mannii
Del. Sandie Burrows

South Africa.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Senecio subsessilis Oliv. & Hiern

Perennial herb, woody herb or weakly woody shrub 0.45–3.0 m high, stem hairy; leaves tomentose, basal leaves petiolate, to 270 mm wide, upper leaves lanceolate, 110–500 x 30–130 mm; capitula radiate usually numerous in congested to lax corymbiform cyme; ray florets pale to bright yellow, 5–8(–12), rays 6–18 x 2–5 mm, 4–10-veined; disc florets yellow, corolla 6.5–9 mm long; in montane bush land, *Hagenia* woodland or forest, often in clearings. Ethiopia and Sudan to D.R.C. and Tanzania; not recorded from Malawi.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

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

Senecio syringifolius O.Hoffm.

Senecio nyikensis Baker

Liana twining to 1.5–10 m high, rather succulent, stems up to 15 mm in diameter; leaves rather succulent, glossy, triangular, 38–10 x 15–90 mm; capitula discoid, many in usually dense, spreading terminal compound corymbs; disc florets ca 20, yellow or creamy yellow, corolla 6.5–9 mm long; achenes 3–4 mm long, ribbed, glabrous; pappus 5–9 mm long; in evergreen forest and on forest margins. Kenya, Uganda, Tanzania, Rwanda, and Malawi.

Source. Patel (1999); Mill (1979); *F.T.E.A.* Compositae (3) (unpublished ms.); Patel & Overton (2002).

Malawi. Nyika National Park, Zovichipolo and High Plateau (Dowsett-Lemaire 1985: 320).

Zambia. Nyika Plateau, Chowo Forest (Dowsett-Lemaire 1985: 320).

Sigesbeckia abyssinica (Sch.Bip.) Oliv. & Hiern ❖

Limnogenetion abyssinicum Sch.Bip.

Annual herb to 1 m high; leaves petiolate, up to 80(–100) x 30(–40) mm, narrowly ovate to ovate, 3-nerved from the base; inflorescence laxly paniculate, up to 200 mm diameter; capitula ca 7 mm diameter; ray florets yellow, lamina ca 1 mm long, tube 0.7 mm long, glandular; disc florets yellow; usually by streams or in seasonally moist grasslands. Cameroon, Ethiopia, Kenya, Uganda, Tanzania, and Malawi.

Source. Wild (1967: 37).

Malawi. Nyika Plateau, 1896, Whyte 245 (K).

Solanecio mannii (Hook.f.) C.Jeffrey ❖

Crassocephalum mannii (Hook.f.) Milne-Redh.; *Senecio mannii* Hook.f.

Erect softly woody shrub or small tree 1–8(–10) m high, stems thick and succulent, green with prominent persistent leaf scars, branching dichotomously; leaves crowded towards the apices of branches, obovate or elliptic, 100–550 x 20–160 mm, margins sinuate-serrate; capitula discoid, very numerous in large corymbs; disc florets yellow, rarely orange or white, corolla 4.5–8.5 mm long; in forest glades or margins, bush land, and rocky slopes. Throughout tropical Africa from Zimbabwe northwards.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.).

Malawi. Nyika National Park, Juniper Forest and Nkhonjera Hill (Dowsett-Lemaire 1985: 348, 350).

Sonchus luxurians (R.E.Fr.) C.Jeffrey

A somewhat robust perennial herb from a semi-woody rootstock; stems trailing or scrambling to ca 2(–6) m long, or erect and up to 1 m high; capitula many, densely clustered; corollas yellow; ligule 4.5–5 mm long; pappus white, dimorphic, 8–10 mm long, minutely barbellate setae intermixed with down-like hairs; in thickets or dense vegetation on forest margins or on forested stream banks; also in disturbed ground; above 1,000 m. Widespread in Central Africa.

Source. *Flora zambesiaca* 6(1): 227 (1992).

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

***Sonchus oleraceus** L. ❖

A stout erect annual herb ca 0.15 m high; lower leaves crowded, to 280 x 90 mm, usually pinnately lobed; capitula stalked, many in corymbiform cymes; involucre to 13 mm long; corollas yellow, ligule ca 5.5 mm long, strap-shaped; achenes light to reddish brown, to 3 x 1 mm, with many ribs, ribs minutely muricate with numerous retrorse projections; a widespread cosmopolitan weed of gardens, irrigation schemes, and roadsides. A native of Eurasia and N. Africa.

Source. *Flora zambesiaca* 6(1): 229 (1992).

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

Sonchus schweinfurthii Oliv. & Hiern

An erect robust perennial plant 1–1.5 m high, stems solitary, branching above; leaves ascending, 360 x 60 mm, entire or dentately to pinnately-lobed; capitula solitary or in small clusters; phyllaries olive-green to purplish, imbricate; corollas yellow; ligule 3–4 mm long, strap-shaped, reddish tinge outside; in seasonal or permanent wet soil, beside streams, dams or irrigation furrows; often as a ruderal or in cultivated or disturbed ground on roadsides in moist localities. Widespread in Central Africa S. of the Sahara.

Source. Mill (1979); *Flora zambesiaca* 6(1): 224 (1992).

Malawi. Nyika National Park, close to Chosi Viewpoint, 10° 36' 46"S, 33° 45' 24"E, 2000, *Koekemoer 1690* (PRE).

No country given. 1967, *Richards 22452* (UZL).

Stoebe kilimandscharica O.Hoffm. ❖

Stoebe elgonensis Mattf.

Much branched shrub or tall tree up to 6 m; leaves linear, ericoid, involute, adaxial surface woolly-hairy; inflorescences spike-like or open panicle; capitula 1-flowered; nectaries absent; pappus 16–20, plumose, slightly fused at the base; on mountain slopes at high altitudes, often on the edge of forests; 2,400–3,000 m. Malawi, Kenya, Tanzania, Uganda, and D.R.C.

Source. *F.T.E.A.* Compositae (2): 452 (2002).

Malawi. Nyika Plateau, 2,400 m, 1946, *Brass 17319* (PRE, K, BM); along the road about halfway between Chelinda and Juniper Forest, 10° 41' 44"S, 33° 57' 09" E, 2000, *Koekemoer 1918* (PRE); *ibid.*, 2000, *Burrows & Burrows 6915* (Buffelskloof Herbarium); Jalawe Viewpoint, 10° 21' 41"S, 33° 47' 51"E, 2000, *Koekemoer 1864* (PRE).

Stomatanthes africanus (Oliv. & Hiern) R.M.King & H.Rob. ❖

Eupatorium africanum Oliv. & Hiern; *Vernonia malosana* Baker

Perennial sub-shrub 0.2–1.2 m high with 1–several stems arising from a woody rootstock 10–35 mm diameter, stems erect, rigid, woody, somewhat branched; leaves alternate to sub-opposite, sessile to shortly petiolate, petiole to 6 mm long, margins often slightly thickened, entire to serrate; capitula 8–14 x 3–6 mm, in dense corymbs; florets 4–5, corolla 5–7 mm long, whitish; a pyrophyte, often found on recently burnt highland grassland; also in woodlands, growing in dense clumps. Widespread throughout Africa.

Source. *F.T.E.A.* Compositae (3) (unpublished ms.); Patel (1999).

Malawi. Nyika National Park, Mwanda Mountain slope, 2000, *Willis 190* (PRE); Vitinthiza Hill slopes, 2000, *Salubeni & Mwanyambo 6808* (MAL).

No country given. 1967, *Richards 22499* (UZL).

Stomatanthes zambiensis King & Robins.

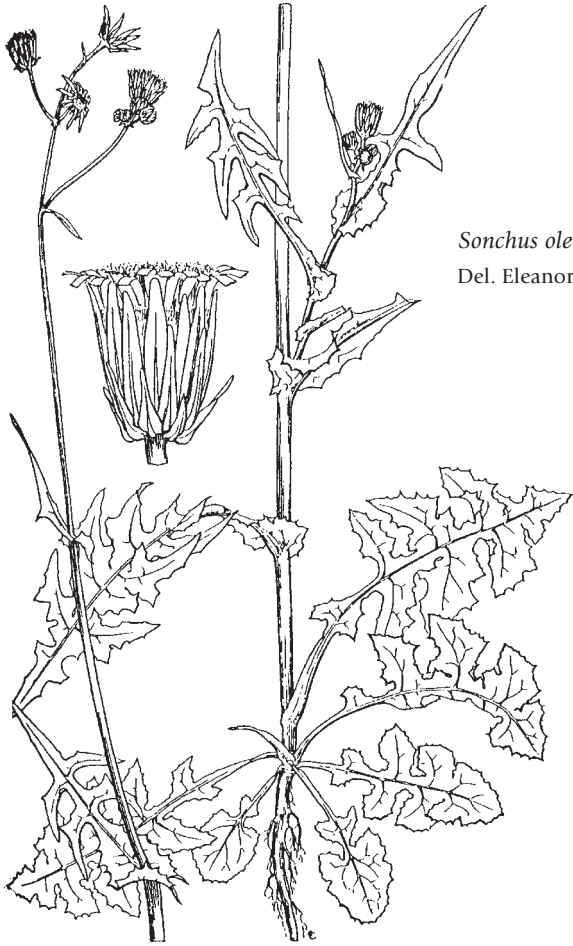
Plants erect, to 1 m high; stems densely tomentose; leaves membranous, broadly elliptic, 30–70 x 5–15 mm; apex acute; margins serrate; inflorescence in a lax cyme; capitula 4–5-flowered; achenes with 5 ribs; pappus bristles scabrid. Grassland. Malawi, Zambia.

Source. Patel (1999); King & Robinson (1975).

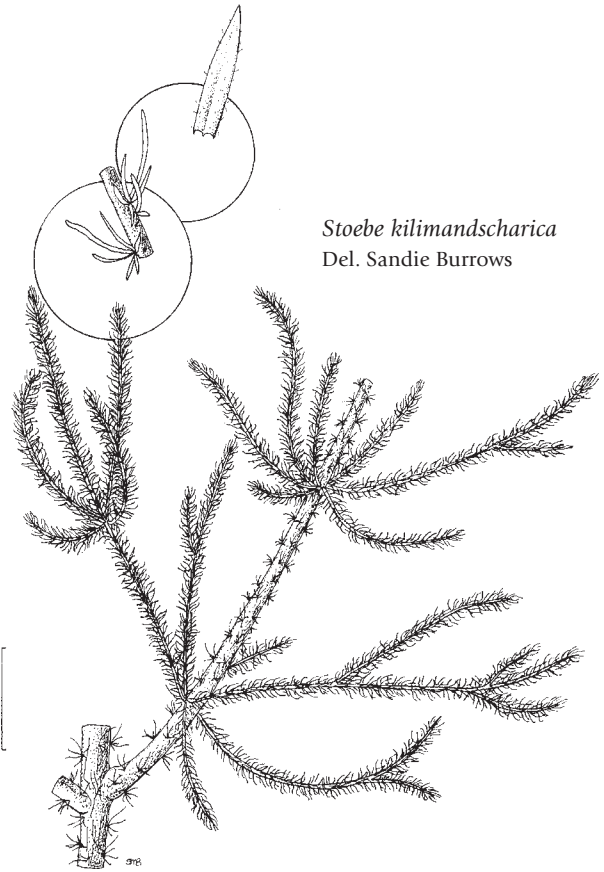
Malawi. Rumphi District: Nyika, Chowo Rock, 1970, *Pawek 3437* (K).

***Tagetes minuta** L. ❖

Annual herb, 100–2,500 mm high, almost woody; whole plant aromatic; stems much branched in larger plants; leaves mostly opposite, but often alternate in upper part of plants, dark green, pinnatisect, 30–300 x 7–80 mm, glandular with orange glands; capitula many in dense terminal corymbs, narrowly cylindrical; ray florets 2–3, pale yellow to cream, ray 2–3.5 mm



Sonchus oleraceus
Del. Eleanor Catherine



Stoebe kilimandscharica
Del. Sandie Burrows

Stomatanthus africanus
Del. Sandie Burrows



Tagetes minuta
Del. Sandie Burrows

