

Tanganyika Terr.: Iringa Prov., Msima Stock Farm, grassland, 1636 m, *P. J. Greenway 3529B*, (UC 513276, Amani) type, isotype; Iringa Prov., Njombe (west of Msima Stock Farm), *Lynes D49* (K) m.v. 2. Cultivated specimens grown in a greenhouse at Berkeley from seed taken from the type material have faithfully reproduced the distinguishing features of this subspecies.

Minor Variant of C. Newii Greenwayi

2. A reduced form, due, perhaps, to drought or competition. Plant 1–1.5 dm high; caudical leaves 2.5–3.5 cm long; stem slender, 1–2-headed, but with 3–5 abortive heads borne racemously; heads rather small; involucre 6–7 mm high. Floral characters typical; corolla about 10 mm long; anther tube about 3 mm long; style branches 1.25 mm long; pappus yellowish-white, 5 mm long; achenes lacking. *Lynes D49* (K) Njombe, Iringa Prov., Tanganyika Terr.

45, *c. Crepis Newii bumbensis* (Hiern) comb. nov. Plant about 4 dm high; caudical leaves 5–7 cm long, 1–1.8 cm wide, puberulous on lower face with minute gland hairs or spreading glandless hairs; involucre 10–11 mm long; inner involucre bracts gland-pubescent with very short pale hairs and slightly longer black setae scattered from base to apex, \pm thickened at base in fruit; corolla about 13 mm long; anther tube about 4.25×1 mm dis.; achenes 5–6.5 mm long, shortly and coarsely beaked; pappus 4.5 mm long. See fig. 76, *a-h*.

Crepis bumbensis Hiern, Cat. Welw. Afr. Pl. 3: 616. 1898.

Crepis bumbensis typica Babc., Bull. Jard. Bot. Etat (Bruxelles), 15: 298. 1937.

The type locality is given by Hiern as Bumbo, in the wooded meadows of Catumba, with the observation, "rather rare; flowers and fruits, Dec., 1859."

Angola: Benguella, Bumbo dist., *Welwitsch 3667* (BM, UCf, K) type, isotype; Loanda, Malange dist., *Gossweiler* in 1903 (P) m.v. 3; Malange *Gossweiler* (K) m.v. 3.

Minor Variant of C. Newii bumbensis

3. Very robust; plant 7.5 dm high; leaves broader and petioles narrower than in typical subsp. *bumbensis*; stems unbranched for $\frac{2}{3}$ of their length; aggregate inflorescence corymbiform; involucre bracts lacking black setules; pappus 5–6 mm long. *Gossweiler* in 1903 (P, K) Malange dist., Loanda, Angola.

45, *d. Crepis Newii kundensis* (Babc.) comb. nov. Plant 4–5 dm high; caudical leaves 6–16 cm long, 1.5–4 cm wide, puberulous, especially on veins, or glabrescent; involucre 9–10 mm long; inner involucre bracts gland-pubescent and black-setose toward apex, the setae short and broad based, becoming strongly carinate and pale spongy-thickened at base at full maturity; corolla about 11 mm long; ligule 1.5 mm wide; teeth 0.25–0.3 mm long, obtuse; corolla tube pubescent from base to summit, as on lower part of ligule, with stout papilliform and acicular hairs 0.05 mm long disposed singly or in groups; anther tube 3.5×1 mm dis.; appendages 0.6 mm long, oblong, acute; filaments 0.75 mm longer; style branches 1.25 mm long, 0.1 mm wide; achenes about 7 mm long, coarsely beaked, ribbed to summit; pappus 6 mm long. See fig. 77.

Crepis bumbensis kundensis Babc., Bull. Jard. Bot. Etat (Bruxelles), 15: 300. 1937.

Cameroon and S.E. Nigeria, in grasslands of the middle altitudes.

Cameroon: savannas of the lower highlands, about 6° N., 14° E., near Kunde, Kisare, *Mildbraed 9214* (B) type, in fruit in Feb. (♀) or May (♀). **S.E. Nigeria:** Bamenda, Bambulue, *Thorbecke 241* (B).

45, *e. Crepis Newii nyasensis* subsp. nov. Planta 6–7.5 dm alta; folia caudicalia 10–15 cm longa 2–3 cm lata glabra; involucre 9–10 mm longa 4–5 mm lata, squamis exterioribus numerosis carinatis ad basim spongioso-incrassatis pallidis scariosis, interioribus glanduloso-pubescentibus et setulosis intermixtis; corolla 11–13 mm

longa, ligula 8–10 mm longa 1.25 mm lata, tubo pubescenti; antherae circa 4 mm longae; achaenia circa 5 mm longa; pappus 6–7 mm longus.

Plant 6–7.5 dm high; caudical leaves 10–15 cm long, 2–3 cm wide, glabrous on both sides; involucre 9–10 mm long, 4–5 mm wide at middle; outer bracts 9–11, with 5–6 subtending ones, strongly carinate, thickened at base, pale-scarious; inner bracts gland-pubescent with short yellow hairs and stronger yellow or greenish setules, becoming carinate, spongy-thickened at base in fruit; corolla 11–13 mm long; ligule 1–1.25 mm wide; teeth 0.25–0.5 mm long; corolla tube 3–3.5 mm long, pubescent with papilliform and acicular hairs up to 0.12 mm long; anther tube (3.75)4.25 × 1 mm dis.; appendages 0.5–0.6 mm long, oblong, sagittate; filaments 1.25 mm longer; style branches 1–1.2 mm long, 0.15 mm wide; achenes about 5 mm long, strongly attenuate upward, not beaked; pappus 6–7 mm long. See fig. 78.

Known only from the type locality.

S. Tanganyika Terr.: Kymbila dist., north of Lake Nyasa, *Stolz 396* (Brussel, Amani) type, isotype.

45, f. *Crepis Newii itakensis* (Babc.) comb. nov. Plant 1–3 dm high; caudical leaves 2–8 cm long, 1–2 cm wide, densely pubescent on both sides with erect setiform yellow glandless hairs, brown-woolly at base of petiole; involucre 10–12 mm long; inner involucre bracts gland-pubescent with short yellowish hairs bearing brown glands, not setose, becoming carinate and thickened at base in fruit; corolla 10 mm long; ligule 1.75 mm wide; teeth 0.15–0.2 mm long, obtuse; corolla tube about 4 mm long, sparsely covered with papilliform and acicular hairs up to 0.2 mm long disposed singly or in groups; anther tube 3.75 × 1.25 mm dis.; appendages 0.6 mm long, oblong, acute; filaments 0.75 mm longer; style branches 0.7–0.9 mm long, 0.15 mm wide, acute; achenes 6.5–7.5 mm long, gradually attenuate into the short pale smooth beak; pappus 5 mm long. See fig. 76, k–q.

Crepis bumbensis itakensis Babc., Bull. Jard. Bot. Etat (Bruxelles), 15: 299. 1937.

Known only from the type locality, where it was collected Sept. 1, 1933.

S.W. Tanganyika Terr.: Iringa Prov., Rungwe reg., northwest of Lake Nyasa, Itaka, grazed areas in *Hyparrhenia-Themedra* grassland subject to fires, 1515 m, *Greenway 3655* (UC 513249) type.

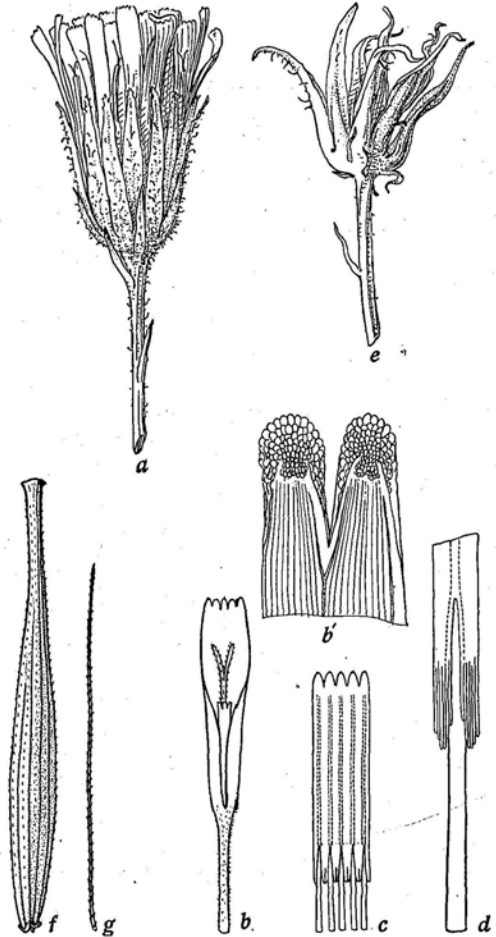


Fig. 77. *Crepis Newii kundensis*, a–d, from *Thorbeck 241* (B); e–g, from type (B): a, flowering head, × 2; b, floret lacking ovary, × 4; b', detail of ligule teeth, × 50; c, anther tube, × 8; d, detail of appendages, × 32; e, old fruiting head, × 2; f, g, achene and a pappus seta, × 8.

Relationship

Crepis Newii is most nearly related to *C. simulans* and *C. caudicalis*, from both of which it is distinct in having the inner involucrel bracts spongy-thickened at maturity. From *C. simulans* it also differs in the longer style branches and in the pubescence of the caudical leaves, which may be setulose but not glandulose. From *C. caudicalis* it differs in the simple or few-divided caudex, in the usually more numerous outer involucrel bracts, in the longer caudical leaves, and in the dark colored, wider achenes.

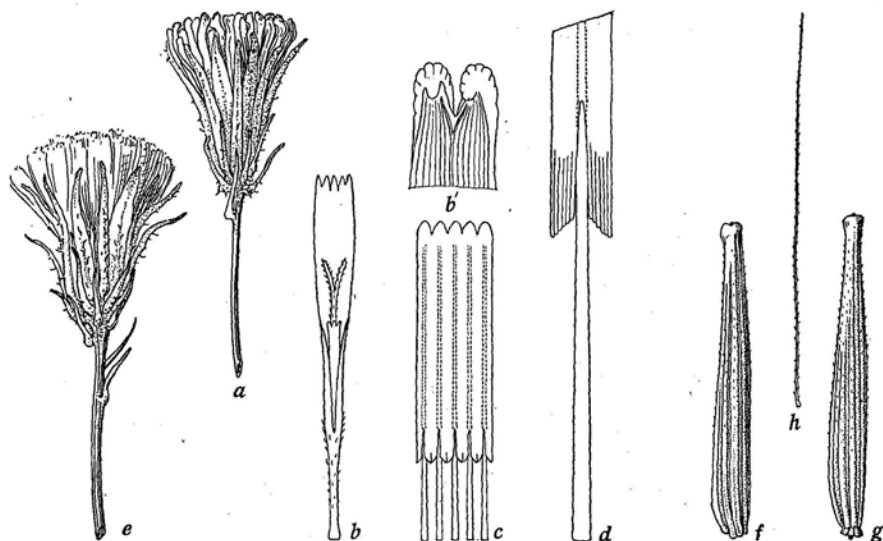


Fig. 78. *Crepis Newii nyasensis*, from type (Brussel): a, flowering head, $\times 2$; b, floret lacking ovary, $\times 4$; b', detail of ligule teeth, $\times 50$; c, anther tube, $\times 8$; d, detail of appendages, $\times 32$; e, fruiting head, $\times 2$; f-h, 2 achenes and a pappus seta, $\times 8$.

46. *Crepis scaposa* R. E. Fr.

Svensk Bot. Tidskr. 22: 360. 1928. (Figs. 79-82.)

Perennial, 0.3-3.5 dm high; root strong, woody, vertical; caudex 0.5-2 cm long, 0.5-2 cm wide, simple or divided, bearing scars or bases of old leaves, leafy at crown; caudical leaves numerous, oblanceolate, obtuse or acute, apiculate to minutely mucronate, finely denticulate to runcinate-pinnatifid, attenuate into a winged petiole, glabrous or with a few short scattered yellow glandless hairs; cauline leaves mostly bractlike or absent, occasionally 4-6 cm long, linear; stems 1-5, scapiform, 1-2-headed, terete, fistulose, striate, glabrous or puberulous below, canescent-tomentose to yellowish tomentose near head; heads erect, many-flowered; involucre 7-13 mm long, campanulate, bracts numerous, \pm imbricate, and with several subtending paler bracts, inner bracts \pm appressed-pubescent on inner face, becoming indurate, not or only rarely somewhat spongy-thickened at base when fully mature; corolla yellow, 8-15 mm long; anther tube yellow, 2-4 mm long; style branches yellow, 0.5-1.75 mm long; achenes brown, 4-7.5 mm long, subterete or subcompressed, fusiform, \pm attenuate upward or indefinitely and shortly beaked, constricted at the pale-calloused hollow base, 14-18-ribbed, ribs fine, nearly equal, very finely spiculate or muriculate; pappus white or yellowish, 5-6 mm long, 2-3-seriate, rather fine, soft, persistent.