

KENYA: Furroli, 3°42'N, 38°0'E, c. 5500-6500', granite, 20.9.1952, *Gillett 13940* (K).

DJIBOUTI: Gorge below Ouzano well, Day Forest, vertical basalt cliff, 1400 m, 14.10.1976, *Lanaeos[?]* & *Nastòn 13/83* (E).

SOMALIA: Near Bedawanak, 30 miles from Hargeisa on road to Burao, 3.6.1949, *Bally 7340* (K); Gaan Libah, 9°52'N, 44°50'E, 1610-1650 m, open bushland, 19.11.1979, *O.J. Hansen & al. 6448* (K); *ibid.*, East, 5700', near edge of escarpment among calcareous rocks, 22.9.1957, *Bally 11731* (G); *ibid.*, 4800', rocky slopes facing N, 19.9.1957, *Bally 11707* (K); Sheik, 4500', garden weed - usually in cracks between rocks, 5.12.1948, *I. Wood* (K); Upper Sheik, [1894-95], *Lort E. Phillips [B]* (BM); Gedeis, [9°59'N, 45°29'E, <1000 m], 1897, *Lort E. Phillips* (BM, K); [Sheik - Las Dhuure area], Durass Bluff, 6500', stony hillside, 12.12.1919, *C. E. Godman 103* (BM); Markat, 10°59'N, 48°30'E, 12.8.1957, *Newbold 885* (K); Al Madu Range at Geldin, 4600', on rocky hillside of much desintegrated limestone, 16.10.1956, *Bally 11149* (G); [NE-Sanaag/Bari, 1877-1881], *G. Révoil 67* (P); Region Sanaag, Al Mado, Steilwand südlich von Al Madjihan (Zinnmine), 400-800 m, 6.4.1988, *Gabriel* (B); Region Bari, bei Karin, breites Tal mit quartären Seditimenten, Travertin-Decken, c. 200 m, 3.4.1988, *Gabriel* (B); Bari, Al Miskat Mts., Bahaya, 11°18'N, 49°49'E, 1400-1600 m, rocky limestone slope, 26.11.1986, *Thulin & Warfa 6078* (UPS); Mijertein, 11°33'N, 50°20'E, 2500', 22.5.1957, *C.J.A. Everard 4* (BM).

Likely also referable to *L. pseudoabyssinica* is an insufficient specimen from Costa di Migiurtini, Penisola di Hafun, costa di Moga, 18.5.1924, *Puccioni & Stefanini 602* (FT).

(14) *Launaea socotrana*

Launaea socotrana N. Kilian, **sp. nova** – Holotype: Socotra, Jebel Rughid, 12°37'N, 53°58'E, 600', pass leading up from W. Aiyeft to Muqadrihun, on limestone, by side of bedu track, in sandy ground under a *Dracaena*, 25.5.1967, *A.R. Smith & J. Lavranos 793* (K!) – Fig. 69.

Herba perennis intermedia inter *Launaeam pseudoabyssinica* et *L. massauensis*; a *L. massauensis* habitu perenni (versus annuo), foliis tenuioribus, synflorescentia pauciramosa (versus multiramosa), ramis synflorescentiae virgatis et curvato-ascendentibus (versus divaricatis), ligulis longioribus (5-7 versus 4-5.6 mm), tubis antherarum longioribus (1.2-1.7(2.2) versus 0.8-1.0(1.2) mm) et achaenibus marginalibus (pallide) brunneis (versus nigris) differt; a *L. pseudoabyssinica* ligulis minoribus (5-7 × 0.9-1.2 versus 6.5-9 × 1.5-1.9 mm), tubis antherarum brevioribus (2.1-3.2 mm in *L. pseudoabyssinica*) et achaenibus longioribus ((2.8)3.4-4.3 versus 2.6-3.6 mm) distat.

Description

Perennial herb with shoot bearing roots, flowering c. 20-40 cm high, with a basal leaf rosette and usually several ascending to ascending-erect, scarcely and usually only basally leafy flowering stems; aging plants with a short, branched, woody caudex. *Caudical rosulate leaves* 2-5 × 0.5-1.5 cm, (narrowly) spathulate, sinuate-dentate to runcinate, margin white-cartilagineously denticulate, apex ± acute, lamina tapering into a narrow base. *Cauline leaves* smaller, linear-lanceolate, pinnatifid to almost entire, acute, with ± clasping base, higher up the stem soon grading into inconspicuous, narrowly ovate, acuminate bracts. *Synflorescence* of a

flowering stem scarcely spreading, only with few branches curved towards the main axis; main axis soon terminated by a capitulum and continued by the terminal monochasial flowering branch; the one or two lower branches repeating the structure of the main axis. *Peduncles* usually (0.1)0.5-2 cm long, \pm curved-erect, capillaceous, immediately below the capitulum with a few bracts passing over into the outer involucre bracts. *Capitula* with 7-14 flowers. *Receptacle* at fruiting time \pm 1 mm in diameter. *Involucre* very slender, 8-10 mm long, involucre bracts with distinct scarious margin, at time of fruit dispersal star-wise outspread and their midrib basally swollen and hardened; outer involucre bracts 6-7, \pm imbricate, the outermost narrowly ovate-acute, 1-1.5 cm long, the following bracts gradually longer and more lanceolate, the innermost linear-lanceolate, up to c. 1/3 as long as the inner involucre bracts; inner involucre bracts 5, linear-lanceolate, \pm equal, $8-9 \times \pm 1.5$ mm. *Flowers* with a bright yellow ligule of $5-7 \times 0.8-1.2$ mm and a tube c. 4-4.5 mm long; anther tube without appendages 1.2-1.7(2.2) mm long, apical appendages ± 0.2 mm and basal appendages ± 0.4 mm long; style branches 0.8-1 mm long, sweeping hairs black. *Achenes* (2.8)3.4-4.3 \times 0.5-0.7 mm, heteromorphic, inner \pm columnar, with cuspidate apex, with 4 main ribs and very indistinct secondary ribs, \pm smooth, pale; marginal slender, subfusiform but stronger tapering towards the cuspidate to shortly rostrate apex than towards base, with 5 main ribs each accompanied by 2 secondary ribs, transversally wrinkled, light to dark brown. *Pappus* 4-5 mm long, persistent, dimorphic, of numerous downy and a smaller number of setaceous inner rays.

From *Launaea massauensis*, also present on the island of Socotra, *L. socotrana* is distinguished by its perennial life form, the curved-ascending to curved-erect stems and branches, the scarcely divaricate synflorescence, narrower leaves, longer anther tubes and somewhat longer achenes of which the marginal are brownish and never black. The species apparently represents some sort of link between *L. massauensis* and the equally perennial and closely related *L. pseudoabyssinica* of the African mainland. From the latter with a synflorescence similar to *L. massauensis*, *L. socotrana* can be distinguished also by the shorter anther tubes and ligules as well as by the somewhat larger achenes (see further notes sub *L. pseudoabyssinica*, variability).

The (probably faded) flowers are said to be "pale purplish pink" on the label of the holotype; however, on labels of other collections the flower colour is reported to be yellow, and was observed to be bright yellow by P. Hein (pers. comm.).

Chromosome number: Unknown.

Variability

Most collections have anther tubes of between 1.2 and 1.7 mm in length like the holotype (in which the values are 1.2-1.4 mm). The collections from the higher altitudes of the Haggier Mts (and thus apparently from the granite outcrops), in contrast, have longer anther tubes of 2.0-2.2 mm; of these, the specimens Gwynne 63, 98 are also of a more robust habit. Hence care should be taken of actual ecogeographical and morphological correlations and of further distinguishing fea-

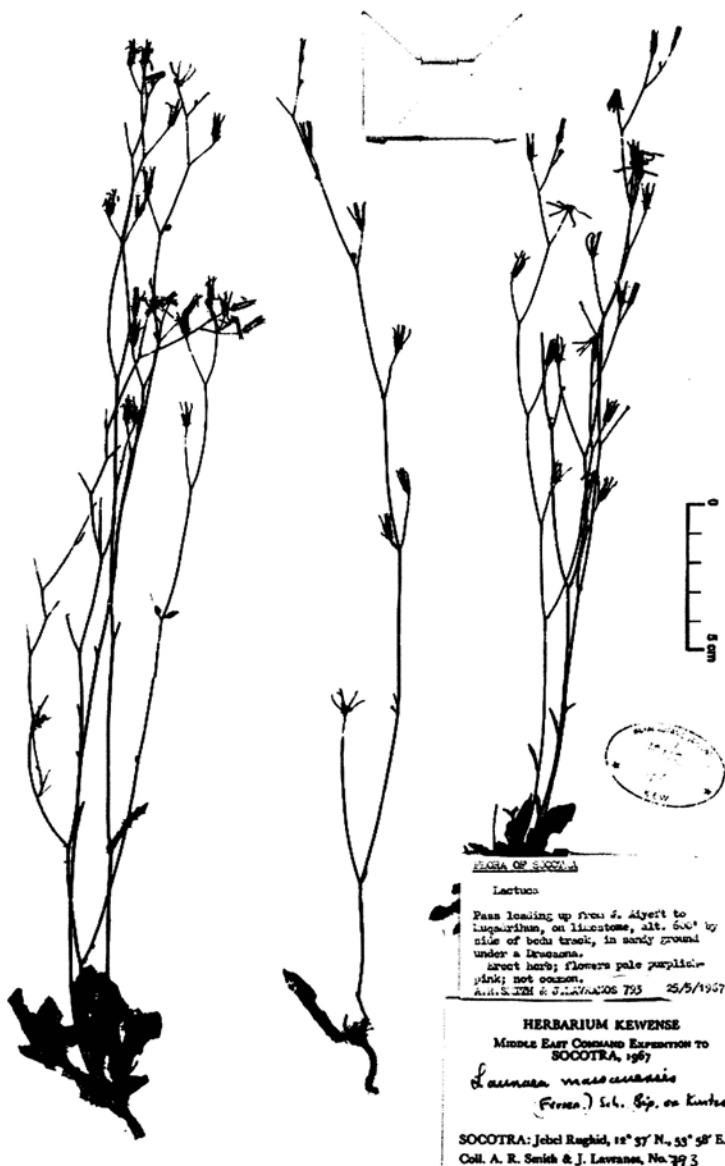


Fig. 69. *Launaea socotrana* (holotype specimen).

tures between the populations from the limestone plateau and its escarpments on one hand and the Haggier Mts populations on the other hand.

Distribution and ecology

Launaea socotrana is a rather inconspicuous species known only from the northern escarpments of the island of Socotra, where it, however, seems to be rather widespread. Possibly, it is even the commonest *Launaea* species of this island but undercollected. It is found at altitudes of c. 100-950 m, growing between rocks and both on limestone and granite. Flowering and fruiting material was collected between February and May as well as in August and November.

Additional specimens seen:

SOCOTRA: S. loc., 2.-3.1880, *Balfour, Cockburn & Scott 349* (BM, OXF); Quallansia, 12°40'N, 53°29'E, Jebel Ma'ali, above Quaysuh, 1200', 27.3.1967, *A.R. Smith & J. Lavaranos 146* (K); Muquadrihon Pass, c. 5 km SSW of Hadiboh, 380 m, 21.2.1989, *Miller & al. 8287* (E); wadi between Hadibu plain and "Aduno" pass, at c. 100 m, 12°37'N, 54°03'30"E, *Croton* shrubland, rocky escarpment, 30.3.1996, *P. Hein 96-474a* (B, herb. Hein, etc.); Wadi Shilliyin, c. 400 m, 30.3.1996, *E. Raab-Straube 227a* (herb. Raab-Straube); path up to Shihali from Hadiboh, 540 m, 18.11.1985, *Quentin Cronk 21* (K); Wadi Qishn, c. 600 m, 30.3.1996, *E. Raab-Straube 257* (herb. Raab-Straube); Haggier Mts., Wadi Daneghan, 800 m, 12.2.1990, *Miller & al. 10464* (B, E); *ibid.*, Kishen valley, 2080', 19.12.1.8.1956, *Gwynne 69*, 98 (BM); *ibid.*, Dimul pass, c. 950 m, 30.3.1996, *E. Raab-Straube 327* (herb. Raab-Straube).

(15) *Launaea massauensis*

Launaea massauensis (Fresen.) Sch. Bip. ex Kuntze, Revis. Gen. Pl. 1: 351. 1891
 ≡ *Heterachaena massauensis* Fresen. in Mus. Senckenberg. 3: 74. 1839 ≡ *Lactuca massauensis* (Fresen.) Sch. Bip. ex A. Rich., Tent. Fl. Abyss. 1: 460. 1848 ≡ *Sonchus massauensis* (Fresen.) Sch. Bip. in Schweinfurth & Ascherson, Beitr. Fl. Aethiop.: 160. 1867 ≡ *Zollikoferia massauensis* (Fresen.) Boiss., Fl. Orient. 3: 825. 1875. – Holotype: Ethiopia, Massaua, am Ufer, 3.1832, *Rüppell* (FR!).
 = *Brachyrhamphus lactucoides* T. Anderson, Florula Aden.: 23. 1860 ≡ *Launaea lactucoides* (T. Anderson) E.H.L. Krause in Bot. Jahrb. Syst. 35: 734. 1905. – Holotype: Yemen, Aden, *J.D. Hooker & Thomson* (K).
 = *Launaea kuriensis* Vierh. in Österr. Bot. Z. 56: 302. 1906. – Holotype: Abd el Kuri, an felsigen Stellen des beim Hafen sich erhebenden Djebel Saleh, 18.1.1899, *Simony* (WU!, isotype W!).

Note: The dubious older name *Lactuca flava* Forssk. (1775), which refers either to this species or to *Launaea intybacea*, has been proposed for rejection, see note (3) sub *L. intybacea*.

lc.: Figs 9a-d, 70. – Vierhapper 1907: fig. 33 (achenes), t. 17(1) sub *Launaea kuriensis* (photo of type specimen in WU); Rechinger 1977: fig. 106 (specimen); Collenette 1985: p. 161 (synflorescence, detail).

Description (v.v.)

Strictly annual herb with slender taproot, flowering c. 15-70(and more?) cm high, usually with a single, erect, leafy main stem strongly branched in upper part, in other cases with a few stems ± branched from base on; stems and branches often

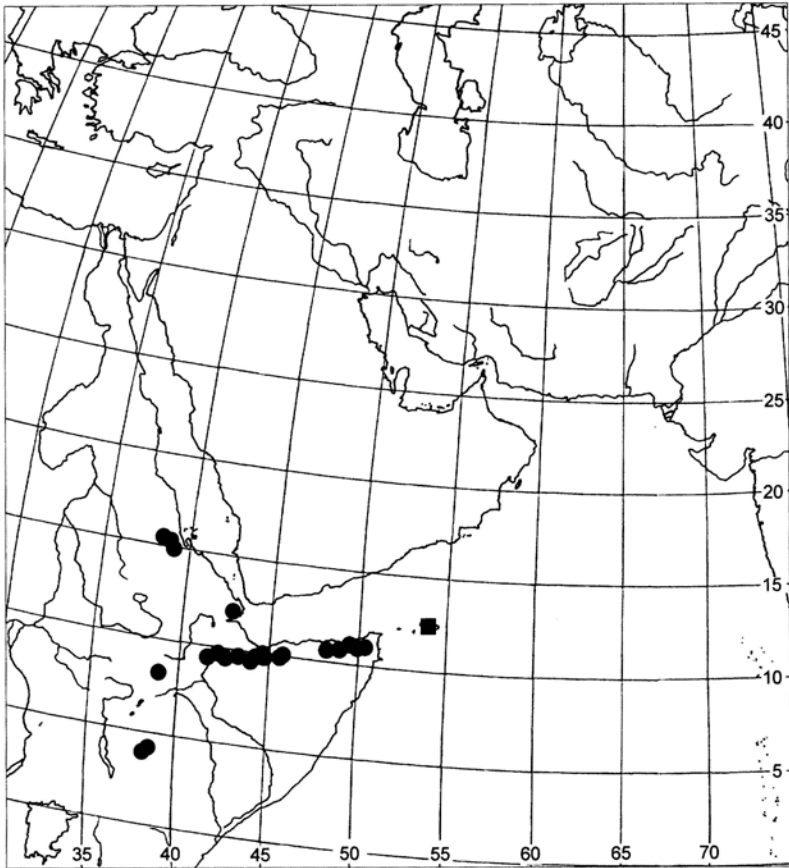


Fig. 68. Distribution of *Launaea pseudoabyssinica* (circles), and *L. socotrana* (squares).

29.4.1909, *Chiovenda 176* (FT); Amasen, Colle Letta, 2000 m, 20.1.1909, *Fiori 1883* (FT); Amasen, Monti Lesa, 6./25.4.1902, *Pappi 4700* (FT), 4879 (A, BM, FT, G, W); Ambelaco nahe Maldi, 14.-18.2.1894, *Schweinfurth 687* (Z); Mont Alam Kalé, au NE d'Aïdereso, 10.4.1892, *Schweinfurth & Riva 1643* (G).

ETHIOPIA: SIDAMO: Boran, Oct./21.11.1899, *Donaldsen Smith* (BM); Mega, 4°05'N, 38°20'E, 7500', on black clay, summit of heavily grazed hill, 15.1.1954, *Mooney 5551* (K). – ARUSI: Chilalo awraja, c. 5 km N of Asella, c. 2100 m, in grassland among tussocks of *Pennisetum schimperii*, 26.10.1971, *Thulin 1563* (K, UPS); Mte. Oulouton (Ulutú) près il lao Zuai e il Langano, c. 1800 m, 28.6.1909, *G. Negri 982* (FT). – HARERGE: Ahmar Mts., 52 km W of Dire Dawa - Harar highway, 9°25'N, 41°37'E, 2200 m, granite slope, 15.8.1962, *W. Burger 2029* (FT, K); below Dangago, 15 km SE of Dire Dawa, 9°30'N, 41°55'E, steep slopes, c. 1700 m, gravelly soil, pH c. 7.5, 15.9.1961, *W. Burger 93* (K); Harar, 9°18'N, 42°06'E, 6300', limestone, much denuded, open grass, 17.2.1933, *Gillett 5021* (K); *ibid.*, hill top and side, 14.10.1954, *P. Ellis 273* (K); 7.4 km E of Gjiggiga, 5800', 24.8.1962, *W.H. Lewis 5890* (K); 20 km SE Djigdijiga (Jiliga), plains, 24.8.1962, *W. Burger 2121* (K).