

# *Sonchus friesii*, a New African Species of Compositæ

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## ABSTRACT

The new species *Sonchus friesii* BOULUS is described, which is known from Zambia, Rhodesia and Moçambique. It is most related to *S. integrifolius* HARV. Together with *S. wilmsii* R. E. FRIES and *S. dregeanus* DC. (= *S. ecklonianus* DC.) these species form one section of subgenus *Origosonchus* BOULUS. A key is provided to separate the four species.

FRIES (1925) described some African species of *Sonchus* L., related to subgenus *Origosonchus* BOULOS, such as *Sonchus wilmsii* R. E. FRIES, *S. stenophyllus* R. E. FRIES, *S. afromontanus* R. E. FRIES, etc.

Further studies on this group (BOULOS 1963) showed that quite a number of specimens among the collections from Zambia (North Rhodesia), Rhodesia (South Rhodesia) and Moçambique seem to belong to none of the known species of that group. These collections (see distribution), typified by the specimen number 4656 collected by T. NORLINDH and H. WEIMARCK from Rhodesia, constitute a new species of the subgenus *Origosonchus*.

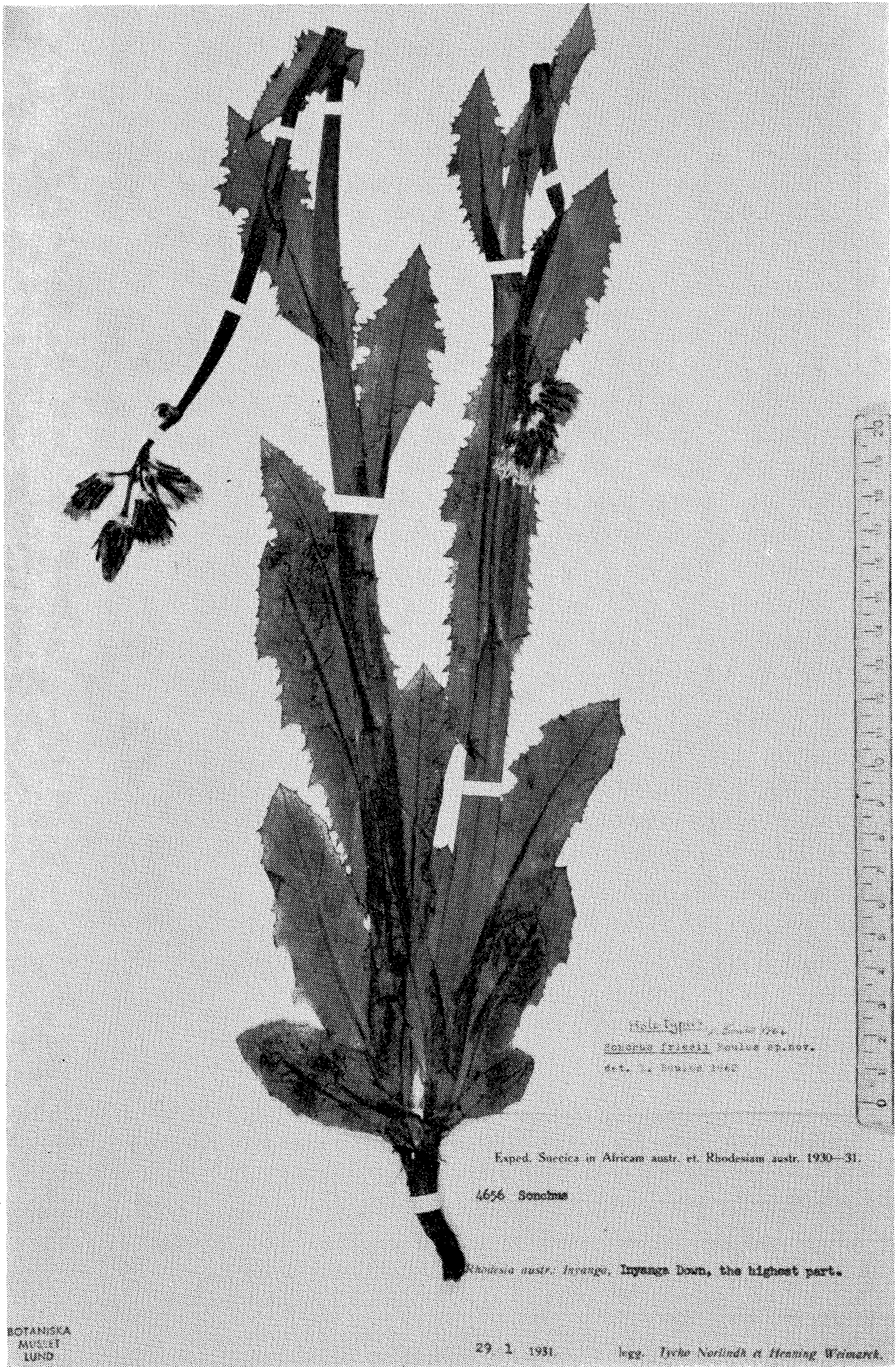
It is proposed to name this species *Sonchus friesii*, homage to ROBERT E. FRIES (1876—1966) who contributed to our knowledge on the African *Sonchus* (FRIES 1925).

## *Sonchus friesii* BOULOS sp. nov.

Herba perennis erecta, 30—90 cm alta; folia ariculata glabra, integra—pinnatifida; capitula alba, basi tomentosa. Folia basalia 3—8 × 1—2 cm, oblanceolata—anguste elliptica; folia caulina 5—15 × 1.5—3.5 cm, anguste elliptica vel oblanceolata vel anguste ovata. Caulis herbaceus glaber. Pedunculus 0.2—7 cm longus. Capitula ± 15 × 8 mm; flores 55—85 in capitulo. Involucrisquamae ± 25, imbricatae. Corolla 12.5—17 mm longa; tubus corollae 8—11

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Fig. 1. *Sonchus friesii*, sp. nov. — Rhodesia austr.: Inyanga Down, the highest part. 29.1.1931. collected by TYCHO NORLINDH and HENNING WEIMARCK, No. 4656 (LD!), Holotypus. (Courtesy of The Botanical Museum, Lund.)



mm longus. Achenium 4—5.5 × 1 mm bruneolum rugosum anguste ellipsodeum. Pappus ± 12 mm longus, persistens. Pollinis grana parva (28—35 μ diam.).

Holotypus: Rhodesia austr.: Inyanga Down, the highest part, 29.1.1931, NORLINDH et WEIMARCK 4656 (LD!).

### EXTENDED DESCRIPTION

*General habit:* Erect perennial (with rhizome) herb, 30—90 cm high; leaves glabrous, auricled; heads white tomentose at the base. *Rhizome* 3—8 mm in diameter, solid. *Roots* 0.1—1.5 mm in diameter. *Caudex* simple or rarely branched, woody, 4—10 mm in diameter. *Caudical leaves* 3—8 cm long, 1—2 cm broad, oblanceolate to narrowly elliptic, entire to pinnatifid, margin irregularly dentate, base with small auricles, apex acute. *Cauline leaves* 5—15 cm long (rarely longer), 1.5—3.5 cm broad, narrowly elliptic, oblanceolate or narrowly ovate, entire to pinnatifid; lobes ± triangular, recurved; margins denticulate or irregularly dentate; apex acute; base auriculate, auricles ± triangular, acute; midrib 2—3 mm broad at the clasping leaf-base. *Stem* herbaceous, glabrous, unbranched or rarely branched at the base, ± cylindrical, hollow, 3—12 mm in diameter, narrowly grooved. *Peduncle* 0.2—7 cm long (4—20 mm), ± cylindrical, hollow, slightly white-tomentose below the capitule, in the axil of a triangular bract. *Heads* few, subumbelled, white tomentose at the base, ± 15 mm long, ± 8 mm in diameter, larger during the anthesis; number of flowers 55—85 per head. *Involucre* of ± 25 imbricated scales, distinguished into ± 9 outer narrowly triangular ones, 5—10 mm long, 1.5—3 mm broad, with thick base and occasionally hairy midrib towards the apex, margins slightly scarious, apex obtuse, ciliate; ± 8 intermediate narrowly rectangular ones, slightly thick at the base, midrib occasionally hairy towards the apex, margins scarious, apex obtuse, ciliate; ± 8 inner narrowly rectangular ones, scarious, apex obtuse, ciliate. *Corolla* yellow, outer florets pale purple on the lower side, 12.5—17 mm long, ligule 4.5—6 mm long, 1.5 mm broad, with 5 obtuse teeth; corolla tube 8—11 mm long, hairy towards the ligule; staminal tube ± 3 mm long; style branches ± 2 mm long. *Achene* 4—5.25 mm long, ± 1 mm broad, brownish, wrinkled, narrowly-ellipsoid, slightly compressed, with thick margins and on each face with ± 5 ribs of which the median is thickest. *Pappus* ± 12 mm long, persistent. *Pollen* 28.6—35.7 μ in diameter.

**DISTRIBUTION**

Zambia (North Rhodesia), Rhodesia (South Rhodesia) and Moçambique.

Zambia: Broken Hill 4000 feet, ROGERS 8645 (K!).

Rhodesia: Pungwe Waterfalls, NORLINDH & WEIMARCK 3753 (LD!); 6000 feet, CHASE 5909 (BM!). — Inyanga, NORLINDH & WEIMARCK 3487 (LD!); NORLINDH & WEIMARCK 4656 (Holotypus and Isotypus, LD!). — Mt. Nuza, 5700—5800 feet, GILLILAND 450 (K!). — Melsetter distr., SWYNNERTON s.n. (BM!).

Moçambique: Chirinda, 3800 feet, SWYNNERTON 487 (BM! K!); SWYNNERTON 190 (BM!).

*Sonchus friesii* grows as a weed in cultivated fields and in the steppes at an altitude of 1100—2100 m. Flowering and fruiting seasons are principally from October to January, occasionally from May to June.

The most closely related species to *Sonchus friesii* is *S. integrifolius* HARV., known from Rhodesia, Moçambique and mainly from South Africa. The two species could be separated as follows:

	<i>S. friesii</i>	<i>S. integrifolius</i>
leaves . . . . .	thin	coriaceous
heads . . . . .	white tomentose at the base	glabrous
involucral scales . . .	±25 with obtuse apex	±34 with acuminate apex

*Sonchus friesii* and 3 other species viz. *S. dregeanus* DC. (Syn. *S. ecklonianus* DC.), *S. integrifolius* HARV. and *S. wilmsii* R. E. FRIES, form together one section of the subgenus *Origosonchus* BOULOS. They could be separated as follows:

- 1 A. Heads glabrous . . . . . *S. integrifolius*
- 1 B. Heads white tomentose
  - 2 A. Stem ± leafless, richly branched at the base; leaves narrow, rosetted . . . . . *S. dregeanus*
  - 2 B. Stem leafy, not or rarely branched at the base; leaves broad
    - 3 A. Leaves deeply dissected, heads ±20×12 mm . . . . . *S. wilmsii*
    - 3 B. Leaves not or slightly dissected, heads ±15×8 mm . . . *S. friesii*

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