



Fig. 10. *Sonchus lidii* Boulos, type specimen, labelled *Sonchus pinnatus* Ait. var. *Canariensis* Sch. Bip., Hierro, El Golfo, Los Llanillos 16 May 1901, J. Bornmüller (G!).

116. 1789, var. *canariensis* Sch. Bip. in Webb et Berth. Hist. Nat. Iles Canar. 3: 411. 1849–1850.

Distribution: Tenerife and Gran Canaria, Canary Islands, rare.

This species is characterized by the high number of involucre scales, 40–57 per head. The outer and intermediate involucre scales are often glandular-hairy. Leaf lobes are entire or slightly denticulate and are not broader than 1 cm. Regarding the variability of the leaves, it is one of the few polymorphic species of subgenus *Dendrosonchus*.

*Sonchus canariensis* with its large heads and high number of flowers (94–164) is easy to differentiate from *S. palmensis* which possesses small heads with a low number of flowers (36–48).

#### 10. *Sonchus canariensis* (Sch. Bip.)

Boulos subsp. *oronavensis* Boulos subsp. nov.

Frutescens. Folia conferta, auriculata, in lobis linearis integris regulatim pinnatisecta. Capitula parva, flores plus minusve 50 in capitulo.

Frutescent; leaves 15–25 cm long, in dense groups below the richly branched inflorescence, auriculate, pinnatisect, lobes narrow,  $\pm$  linear; peduncle 1–2.5 cm long, heads small, with  $\pm$  50 flowers. Holotype: Tenerife, infra oppidum Orotava; Barranco San Antonio versus 250 m supra mare. Valde paucus, 13.

4. 1944, E. Sventenius; labelled: *Sonchus arboreus* DC. (CAI!).

Distribution: Tenerife, Canary Islands.

This sub-species is known only from the collection of the type and is named after Orotava, the locality where it was collected.

#### 11. *Sonchus lidii* Boulos sp. nov.

Frutescens, erectus, 80–140 cm altus. Folia ad 55 cm longa, glabra, coriacea, in lobis suboppositis plus minusve 12-jugis dissecta. Pedunculus 3–8 cm longus, leviter tomentosus. Flores circa 200 in capitulo. Bractae involucri imbricatae, circa 52. Corolla flava, 16–18.5 mm longa, ligula corollae tubum aequantibus. Tubus staminibus 4–4.5 mm longus. Achenium 3–3.5 mm longum, valde transverse-rugosum, Pappus 8–10 mm longus plus minusve deciduus, pro parte setiformis, pro parte piliformis.  $2n = 18$ .

Frutescent, 80–140 cm high, rarely branched at the base. Leaves glabrous, coriaceous, 30–55 cm long, shorter towards the richly branched leafless inflorescence, pinnatisect, with  $\pm$  12 pairs of subopposite lobes, 3–7 cm long, 0.5–2 cm



Fig. 11 a.

Fig. 11 a. and b. *Sonchus pitardii* Boulos, type specimens I and II, Los Llanillos, El Golfo, Hierro, 9 August 1962, Boulos (CAI!).

broad, the longest lobe at the middle of the leaf,  $\pm$  triangular or linear-elliptic, curved towards the apex, margins almost entire, apex sharply pointed. Peduncle 3–8 cm long, 1–1.5 mm in diameter, slightly tomentose below the head, more tomentose towards the base, cylindrical, hollow. Head 2 cm long, up to 4 cm in diameter during anthesis, number of flowers about 200 per head. Involucre imbricated, of  $\pm$  52 scales, differentiated into  $\pm$  9 outer, 5–7 mm long, 2–3.5 mm broad, triangular-elliptic, with acute apex,

thick base, and ciliate margins; intermediate scales  $\pm$  16, of 7–13 mm long, 3–4 mm broad, triangular elliptic to linear-elliptic, with obtuse apex and ciliate margins; inner scales  $\pm$  27, of 12–15 mm long, 1–2 mm broad, linear, thin-membranous, with obtuse apex and ciliate margin. Corolla yellow, 16–18.5 mm long; ligule 8–9.5 mm long, 2 mm broad, linear, with 5 subequal pointed teeth; corolla tube 8–9.5 mm long, hairy towards the ligule; staminal tube 4–4.5 mm long; style branches 2.5 mm long, densely hairy. Achene oblanceolate, brownish, 3–3.5 mm long, 1–1.2 mm



Fig. 11 b.

broad, compressed, with 2-3 ribs on each face, strongly transversely wrinkled. Pappus 8-10 mm long,  $\pm$  deciduous, composed of highly deciduous solitary long bristles and less deciduous grouped hairs.

This species is named in honour of Mr. Johannes Lid of the Botanical Museum, University of Oslo, Norway, who worked on the flora of the Canary Islands.

Holotype: Hierro (Ferro): El Golfo, Los Llanillos, 200-300 m, J. Bornmüller 2538, 16 May 1901; labelled: *Sonchus pinnatus* Ait. var. *Canariensis* Sch. Bip. (G!).

Distribution: Hierro, Canary Islands.

Chromosome number:  $2n = 18$ , Roux et Boulos (in press).

*Sonchus lidii* is endemic in the El Golfo region of Hierro Island. It was collected for the first time by Bornmüller in 1901 and was determined as *S. pinnatus* var. *canariensis*. The writer collected it for the second time from the same locality in 1962. This species is characterized by its long coriaceous leaves with subopposite lobes and its richly branched inflorescence with numerous heads on long peduncles and the high number of flowers ( $\pm 200$ ) and involucre scales ( $\pm 52$ ).

## 12. *Sonchus pitardii* Boulos sp. nov.

Frutescens erectus 1-2 m altus. Folia praesertim ad basim inflorescentiae valde ramosae fasciculata, 10-35 cm longa, in lobis multiformis pinnatisecta. Pedunculus 0.5-6 cm longus. Capitula numerosa magnitudine variabilis, flores circa 130 in capitulo. Bractae involucri circa 35, imbricatae. Corolla flava plus minusve 15 mm longa, ligula fere 7 mm, tubus fere 8 mm. Tubus staminalis circa 4.5 mm longus. Achenium 2.5-2.75 mm

longum, rugosum. Pappus plus minusve 6 mm longus, plus minusve deciduus, pro parte piliformis pro parte setiformis.  $2n = 18$ .

Frutescent, erect, branched, 1-2 m high. Leaves 10-35 cm long, grouped at the base of a richly branched inflorescence, branches almost naked below; upper surface of leaves glabrous, lower surface slightly pubescent, pinnatisect; lobes opposite or irregularly arranged, of variable shape, triangular to oblong-lanceolate, 1-4 cm long, 4-8 mm broad. terminal lobe longer and broader, margins almost entire. Peduncle 0.5-6 cm long, hollow, cylindrical, glabrous. Heads numerous, of variable size, 10-18 mm long, 5-12 mm broad when closed; number of flowers  $\pm 130$  per head. Involucre imbricated, of  $\pm 35$  scales per head; differentiated into  $\pm 12$  external, triangular, 3-10 mm long, 1.5-3 mm broad, with ciliated margins, obtuse apex and thick base;  $\pm 10$  intermediate scales, 14-18 mm long, 2 mm broad, oblong-lanceolate, with margins slightly ciliated and obtuse apex;  $\pm 13$  inner scales, 16-18 mm long, 2 mm broad, linear, with scarious ciliated margins and obtuse apex. Corolla yellow,  $\pm 15$  mm long; ligule  $\pm 7$  mm long, with 5 obtuse teeth; corolla tube  $\pm 8$  mm long, hairy at its junction with the ligule; staminal tube  $\pm 4.5$  mm long; style branches  $\pm 1.2$  mm long, hairy. Achene 2.5-2.75 mm long,  $\pm 1$  mm broad, oblanceolate, brownish, wrinkled, compressed, with 2-3 ribs on each face. Pappus  $\pm 6$  mm long,  $\pm$  deciduous, partly composed of bristles which are highly deciduous, long, with multicellular base and irregularly distributed well-developed lateral spines and acute apex; and partly of less deciduous