7.3. *Launaea* sect. *Cornutae*

Launaea sect. *Cornutae* N. Kilian, **sect. nova**
Type: *Launaea cornuta* (Oliv. & Hiern) Amin ex C. Jeffrey

Herbae perennes tenerae foliis plurimis basalibus vel suffrutescentes elatae foliis caulinibus bene evolutis, radicibus surculigeris; synflorescentia ± divaricate ramosa; capitula circa 15-30-flora, involucrum post anthesin leniter prolongatum, bracteis interioribus infra apicem plerumque glandibus cornutis, interdum etiam glandibus stipitatis in pedunculo et involucro; achaenia subhomomorpha, transverse distincte rugosa, apice in discum pappiferum expanso, omnia costis principalibus quinque et unaquaque costis secundariis duobus concomitata, achaenia interiora prismatica subcylindrica apicem et basin versus leviter attenuata, marginalia ± subfusiformia subcompressa et subcurvata; pappus deciduus homomorphus radiis setaceis multiseriatus. Numerus chromosomatum 2n = 12 vel 10.

Perennial herbs with shoot bearing root system and basal leaf rosette or leafy flowering stems. *Synflorescence* ± divaricately branched, mostly many-capitulate. *Capitula* with c. 15-30 flowers. *Involucre* somewhat prolonged towards fruiting time, with ± imbricate outer and ± equal inner incolucral bracts, both with scarious margins, inner usually with hornlike glands on the midrib below the tip; stipitate glands on the peduncles and involucres sometimes present. *Achenes* subhomomorphic, all with 5 prominent main ribs each accompanied by 2 distinct secondary ribs, distinctly transversally wrinkled, pale or darker brownish; inner achenes ± cylindrical to somewhat attenuate at both ends, apically expanded into a pappus disk; marginal ± subfusiform, somewhat compressed and curved, otherwise similar. *Pappus* deciduous, homomorphic, of numerous setaceous rays.

Chromosome numbers: 2n = 12, 10.

Historical outline

The section comprises two species, very similar in achene morphology but differing in achene size. However, probably due to their disjunct distribution in Africa and Asia as well as their considerable habitual differences, they have never been considered to be closely related before. Amin, in her unpublished preliminary and tentative classification of the *Launaea* species grouped one of both, *L. cornuta*, together with *L. exauriculata* in a separate subgenus. Confirming the view of Jeffrey (1966), I consider the latter species conspecific with *L. cornuta*. The second species, *L. asplenifolia*, was tentatively associated by Amin with *L. tapetodes*, which has been recognized in the meantime as a member of *Ixeris*. Candolle (1838a: 181) associated *L. asplenifolia* with *L. procumbens* with which it has only some superficial similarity.

Distribution and ecology

The two species of *Launaea* sect. *Cornutae* show a similar disjunct African-Asian distribution pattern and a similar preference for subhumid subtropical climates as the species of *L.* sect. *Pseudosonchus*. There are further similarities in the dis-

tribution area of the more widespread species of the latter section and of both species of *L.* sect. *Cornutae* (compare the distribution of *L. acaulis* and *L. aspleniifolia* and that of *L. rarifolia* or *L. nana* and *L. cornuta*). The members of both sections prefer open types of vegetation. Both species of *L.* sect. *Cornutae* are moderately successful as weeds.

Phylogenetic aspects

As well as congruence in achene characters, both species usually have well developed hornlike glands below the tip of the inner involucral bracts. In other species of the genus, comparable emergences are occasionally developed only as inconspicuous black crestlike projections of the same kind as found in several other *Lactuceae* genera. An odd exception in the genus, *Launaea cornuta* often has also stipitate glands on the peduncles and involucres, which explains the long-term attribution of this species to *Sonchus*.

The fact that the African member of *L.* sect. *Cornutae* has a lower chromosome number than the Asian member seems noteworthy in the light of the general assumption of an Asian-African migration of the *Lactuceae* genera. On the other hand, *L. cornuta* and *L. aspleniifolia* illustrate a case where progressive reductions in chromosome number and progressive reductions in reproductive organ size (compare achenes and anthertubes in *L. aspleniifolia* and *L. cornuta*) do not coincide, providing further evidence for the obvious independence of evolutionary trends in chromosomal and in certain morphological features.

For the possible closer relationship between *L.* sect. *Cornutae* and *L.* sect. *Acanthosonchus* see the introduction to the latter section.

Key to the species of *Launaea* sect. *Cornutae*

1 Tall, basally woody perennial (up to 1-1.5 m high) with leafy stems; anthertube without appendages >2.8 mm long, apical appendages or whole anthertube blackish yellow; style branches with blackish sweeping hairs; achenes >2.5 mm long . . . . . **(2) *L. cornuta***

– Small perennial herb (<40 cm high) with basal leaf rosette, stems leafless or at most basally with a few leaves; anthertube without appendages <2.5 mm long, yellow; style branches with yellow sweeping hairs; achenes <2.5 mm long . . . . . **(1) *L. aspleniifolia***

(1) *Launaea aspleniifolia*

Launaea aspleniifolia (Willd.) Hook. f., Fl. Brit. India 3: 415. 1881 ≡ *Prenanthes aspleniifolia* Willd., Sp. Pl. 3: 1540. 1804 ≡ *Microrhynchus aspleniifolius* (Willd.) DC., Prodr. 7: 181. 1838 ≡ *Ammoseris aspleniifolia* (Willd.) D. Dietr., Syn. Pl. 4: 1319. 1847 ≡ *Rhabdotheca aspleniifolia* (Willd.) Webb in Hooker, Niger Fl.: 146. 1849. – Holotype: India [orientalis], *Roxburgh* [specimen with label handwritten by Roxburgh "*Hieracium dichotomum*"] (B-W no. 14596!; isotype: (ex herb. Desfontaines) FI-W!).

Ic.: Figs 6h, 49. – Kirtikar & al. s.d.: fig. 563 (habit).