

## New *Taraxacum* species from Finland

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The paper describes two new *Taraxacum* species from southern Finland: *Taraxacum glossodon* Sonck & H. Øllg. (sect. *Ruderalia*) and *Taraxacum nylandicum* Sonck & H. Øllg. (sect. *Boreigena*), and one new species from northern Finland, *Taraxacum porcellisinus* Sonck & H. Øllg. (sect. *Ruderalia*). The species are illustrated in black and white photographs.

Key words: Asteraceae, Finland, new species, *Taraxacum*, taxonomy

***Taraxacum glossodon*** Sonck & H. Øllg., sp. nov.  
(Figs. 1 and 2)

*E* sectione *Ruderalia*. Planta magnitudine mediocris, 30–45 cm alta. Folia lanceolata–late lanceolata, olivaceo-viridia, 4–5-lobata, petiolis brevibus angustis, ± lucide violaceis, nervo mediano inferne sordide violascente, ceterum viridi–sordide rubescente. Lobi laterales anguste deltoidei, subacuti, in apicem saepe praelongum anguste linearem, ad 20–30 mm longum, saepe valde porrigentem protracti. Lobus terminalis trilobatus, lobulis basalibus longis, contractus et in apicem plerumque longissimum acutum abiens, lobulo apicali interdum ± ampullaceo. Interlobia ad 20 mm longa, ca. 4–5 mm lata, ± crispata, crasse dentata, viridia vel leviter infuscata. Scapi virides vel leviter purpurei, saepe sat dense araneosi, florendi tempore foliis aequilongi vel longiores. Involucrum ca. 15 mm longum, 12 mm latum. Squamae exteriores late lanceolatae, canescenti-virides, ca.

14 mm longae, 4–5 mm latae, reflexae, margine fere plano non hyalino, apice plano. Squamae interiores latitudine inter se fere similes, infra apicem interdum leviter callosae. Calathium saturate luteum, 40–50 mm diametro, mediocriter densum, convexum, ligulis marginalibus planis, subtus stria fusco-violacea notatis, denticulis apicalibus ligularum partim roseis. Antherae polliniferae, granis pollinis diametro variis. Stigmata sordide lutei–leviter obscura. Achenium ochraceo-stramineum, 4.5–5.0 mm longum (pyramide inclusa), supra medium ca. 0.8–1.0 mm latum, superne tuberculatum–breviter vel longius spinulosum, inferne tuberculatum–± laeve, in pyramidem subcylindricam subabrupte abiens. Rostrum 11–12 mm longum. Pappus albus, 6–7 mm longus.

Holotype: Finland. Nylandia, Borgå (Porvoo) municipality, Kullo village, at Oljevägen, roadside, 4.VI.1998 C. E. Sonck (H, 726201; isotype H, 726202), and in the private herbarium of C. E. Sonck). Note: Kullo village is situated 12 km WSW of Porvoo (60°21'10"N; 25°28'57"E).



**Fig. 1.** *Taraxacum glossodon* Sonck & H. Øllg. (holotype).

*Distribution.* *Taraxacum glossodon* has been found in Finland, Sweden, Denmark, Poland, the Czech Republic, and Slovakia, being locally common. A complete list of the *T. glossodon* locations will be sent by the authors on request.

*Taraxacum glossodon* belongs to section *Ruderalia*. It is a spectacular species which could not be passed by without being noticed because of its relatively lacerate leaves with purple-coloured petioles, long and narrow leaf lobe processes, longish and rather narrow, fairly crispate and densely toothed interlobes, which are occasionally somewhat tar-coloured, and endlobes with a long, narrow, often somewhat bottle-shaped apical lobule. The outer bracts are broad, 4–5 mm or sometimes somewhat broader,  $\pm$  reflexed. The capitulum when in full flower is fairly normal as to colour, diameter, shape and density. Pollen is present. The stigmas are discoloured. The achenes are large for the section, ca. 4.8 mm long (including the 0.8–1.0 mm long cone), with shorter to



**Fig. 2.** Achenes of *Taraxacum glossodon* Sonck & H. Øllg. (from the holotype,  $\times 15$ ). Photo by Dr. Tuuli Timonen.

longer, rather strong spinules above.

Morphologically, the closest species is *Taraxacum glossocentrum* Dahlst. The leaves of the latter are thinner and more elegant, usually with deeply cleft lateral lobes, which sometimes look like the lobes of *T. ostenfeldii* Raunk. or, when less cleft, like those of *T. borgvallii* Dahlst. ex Hagl. The lateral lobes of *T. glossodon* are more irregular. The endlobes of *T. glossocentrum* only occasionally have an endlobule with rounded lateral apices, in contrast to *T. glossodon*, where this is often seen. The interlobes of the two species are different, mostly flat and green in *T. glossocentrum*, crispate and often darkish in *T. glossodon*. However, the leaves of both species are variable, due to environmental circumstances. The outer bracts are narrower in *T. glossocentrum*, usually about 3 mm broad (2–4 mm), whereas in *T. glossodon* the bracts are 4–5 mm broad or more. The achenes of *T. glossocentrum* (Fig. 3; measures taken from a specimen, collected in Finland,



**Fig. 3.** Achenes of *Taraxacum glossocentrum* Dahlst. (from specimen H 112370,  $\times 15$ ). Photo by Dr. Tuuli Timonen.

Kyrkslätt, H 112370) are shorter (ca. 4 mm long) than those of *T. glossodon* (see above). *Taraxacum lacerilobatum* Saarsoo has outer and middle leaves shaped almost like *T. glossodon*. The former however, has far shorter and narrower bracts than *T. glossodon*, and large endlobes on the inner leaves, which is not the case in *T. glossodon*.

***Taraxacum nylandicum* Sonck & H. Øllg., sp. nov.** (Fig. 4)

*E sectione Boreigena. Planta robusta, magnitudine mediocris, 20–30 cm alta. Folia plerumque patentia, sat curta, obscure glaucescenti-viridia, glabrescentia, petiolis lucide purpureis anguste-sat late alatis, alis etiam purpurei-coloratis, nervo mediano viridi vel squalide paene rubro. Folia exteriora et intermedia plerumque paucilobata cum 2–4 lobis utrimque. Lobi laterales deltoidei, margine dorsali fere recto plerumque integro, proximali fere recto integro. Lobus terminalis longior, late sagittatus basi obliqua, integer vel conspicue incisus, in apicem brevem haud abrupte definitum*



**Fig. 4.** *Taraxacum nylandicum* Sonck & H. Øllg. (holotype).

*protracto. Interlobia superioris partis folii late rotundata, plana vel leviter plicata, viridia. Scapi sub involucri araneosi, ceterum glabrescentes. Involucrium subobscure viride, parce pruinatum. Squamae exteriores late lanceolatae, 16–17 mm longae, ca. 5 mm latae, virides et interdum sordide et irregulariter rubescentes, margine plano non hyalino, vix corniculatae,  $\pm$  arcuato-reflexae. Squamae interiores latitudine inter se similes. Calathium ca. 50 mm diametro, luteum, mediocriter densum—sat densum, planum—leviter convexum, ligulis marginalibus planis, subtus stria sat angusta obscure rubro-canescenti ornatis, denticulis apicalibus luteis. Antherae polliniferae, granis diametro variis. Stigmata virescentia. Achenium stramineum-cano-brunneum, 3.3–3.5 mm longum (pyramide inclusa), crassum, in parte superiore spinulis mediocriter longis, robustissimis incurvis instructum, pyramide bene definita cylindrica, laevi, 0.6–0.7 mm longa. Rostrum 10–11 mm longum. Pappus albus.*

Holotype: Finland. Nylandia, “Nyl., Köklaks, Esbo gård, gammal övergiven äng” (= old overgrown meadow), 60°11'52"N, 24°35'08"E, 31.V.1998 C. E. Sonck, H. Øll-

gaard *et al.* (H 726203; isotypes H 726204 (HØ98-221), and in the private herbaria of C.-F. Lundevall, J. Räsänen (S101,-104,-108), C. E. Sonck., and H. Øllgaard (HØ98-220,-222).

*Distribution.* *Taraxacum nylandicum* is only known from the type location, where it was found in great numbers.

On account of the rather short, broad and robust leaves with only a few leaf lobes, and the large outer involucre bracts we have decided to place this new species in section *Boreigena*, however with some doubt because the flowerhead diameter is somewhat smaller than average for that section, and because of the conspicuous ligule stripes. The type specimen represents a lobate modification among the many other specimens of *Taraxacum nylandicum* with less lobate, often mostly non-lobate, leaves which were found on the type location. The leaves are dark green with a bluish hue, faintly glabrescent, unspotted, usually patent and thereby exposing the striking red to very lucid purple colour of the petioles. The midrib is green to dirty reddish, without striatulate pattern. The petioles are strong and broad with narrow purple-coloured wings. As mentioned above *T. nylandicum* is easily recognised by often having almost non-lobate leaves, but often the outer and middle leaves are lobate. Leaf lobes, when well developed, are deltoid and undivided, with straight to concave or irregular upper edge, and almost straight and entire lower edge. The lateral lobe apex is short and moderately acute. The terminal lobe is longer than the lateral lobes, often with an oblique base and one or two lateral incisions, moderately acute and usually with a shortly protracted tip. The interlobes of upper half of the leaf are broadly rounded, flat to faintly or irregularly plicate, without blotches. The scapes are only conspicuously hairy under the involucre. The buds are light to dark green, not (or faintly) pruinose. The outer involucre bracts are long, 16–17 mm, and broad, about 5.0 mm, greenish or irregularly reddish coloured, rather regularly arranged, with flat edges without a clear hyaline border, usually with flat tips. They are more or less curved-reflexed. The width of the inner bracts is almost uniform. The capitulum is ca. 50 mm in diameter, moderately to rather dense with a flat to ± convex profile. Flower colour is medium yellow, ligules flat or canaliculate, with yellow teeth.

The ligule stripe is narrower than ligule, faintly reddish grey. Pollen present. Stigmas are discoloured. Achenes strawcoloured or greyish brown, 3.3–3.5 mm long (incl. cone, 0.6–0.7 mm long, cylindrical, smooth). Achene spinules moderately long, very robust, incurved. Rostrum length 10–11 mm.

*Taraxacum nylandicum* is an easily recognised species, which was instantly defined as an unknown taxon in the type location. When studying species in herbarium H for possible identification of *T. nylandicum* only one species was found to resemble it in respect of leaf lobation, viz. *T. crassipes* Lindb. fil., another member of sect. *Boreigena*. *Taraxacum nylandicum* is easily separated from *T. crassipes* in having polliniferous anthers, discoloured stigmas, dark glabrescent leaves, and strongly red leaf petioles.

***Taraxacum porcellisinus* Sonck & H. Øllg., sp. nov.**  
(Fig. 5)

*E sectione Ruderalia. Planta 20–45 cm alta, sat gracilis. Folia lanceolata, obscure viridia, glabrescentia, multilobata, petiolis angustis, lucide purpureis, nervo mediano saepe etiam ± rubescente, non striatulo. Lobi laterales deltoidei, inter se fere aequales, interdum alae incisi, tamen plerumque integri, margine dorsali et proximali fere recto, hoc saepe dente conspicuo peracuto instructo, apice loborum laterali acuminato peracuto. Lobus terminalis sat parvus, triangulari-hastatus, dorsis ± concavis, plerumque incisis, ejus lobulis basalibus rotundato-apicatis, apice acuminato peracuto. Foliorum interiorum lobus terminalis haud maior. Interlobia partis superioris foliorum acuto-angulata, integra vel uno dente conspicuo peracuto instructa, vix plicata, viridia. Scapi quam folia longiores, sub involucre araneosi, ceterum glabrescentes. Involucre obscure viride (sed non nigrescens), parum pruinose. Squamae exteriores anguste lanceolatae, ca. 12 mm longae, 2–2.5 mm latae, reflexae, marginibus recurvis non hyalinis, apicibus saepe subcorniculatis. Squamae interiores latitudine inter se fere similes. Calathium 35–40 mm diametro, luteum, mediocriter densum, convexum, ligulis marginalibus planis, subtus stria cano-violacea instructis, denticulis apicalibus luteis. Antherae polliniferae, granis*

*pollinis diametro variis. Stigmata obscure virescentia non nigrescentia. Achenium brunneistramineum, ca. 3.8 mm longum (pyramide inclusa), superne spinulis sat tenuibus mediocriter longis, rectis, instructum, pyramide 0.7–0.8 mm longa, cylindrica, laevi. Rostrum 9–10 mm longum. Pappus albus.*

Holotype: Finland. “Lapponia inarensis, par. Inari, Sikovuono, cp. vilj. niityllä tien varr. (ent. saksalaisten leiri-paikka 1942–1943)”, 7.VII.1984 C. E. Sonck & H. Øllgaard (H 726206; isotypes in H 726205, H 726207 (HØ84-424)) and in the private herbaria of C. E. Sonck, and H. Øllgaard (HØ84-423,-425). Note: The location Sikovuono (English: “pig’s bay”, Latin: *porcellisinus*) is a farm 7 km NNW of Inari church, at the road towards Utsjoki (68°57′38″N; 26°58′21″E). It was a German military camp site 1942–1943. The species occurs in great numbers on grass fields between the road and the farm.

*Taraxacum porcellisinus* is a slender, moderately tall plant (20–45 cm) with lanceolate, glabrescent, dark green, multilobate leaves and narrow and unwinged, strongly purple-coloured petioles and sometimes also with the midribs coloured a long way up on the upper surface, without striatulate pattern. The lateral lobes are crowded and rather uniform, deltoid, sometimes deeply cleft (one incision), but usually undivided and with entire upper edges, almost straight proximal edges which often have a conspicuous, very acute, downwards-pointing tooth. The lobe apex is very acute, often acuminate. The terminal lobe is small, triangular-hastate, with  $\pm$  incised lateral edges (incisions often causing lobules with rounded apices) and an acute, acuminate, somewhat elongate apex. The terminal lobes of the inner leaves is hardly larger than those of the other leaves. The interlobes are acute-angled, mostly entire, but sometimes with a single long tooth, not strongly plicate and without blotches. The scapes are longer than the leaves, glabrescent except under the involucre. The buds are dark but not blackish green, only faintly pruinose. The outer bracts are narrowly lanceolate, ca. 12 mm long, 2–2.5 mm broad,  $\pm$  reflexed, margins somewhat recurved, without hyaline border, sometimes with a small corniculation near the tip. The width of the inner bracts is uniform. The flowering capitulum is small for the section (diameter 35–40 mm), moderately dense to dense, with a convex profile. The flowers are yellow, outer ligules flat with yellow apical teeth and striped dark greyish violet on underside. Het-



Fig. 5. *Taraxacum porcellisinus* Sonck & H. Øllg. (holotype).

erogenous pollen is produced. Stigmas are very dark greenish, but hardly blackish. Achenes brownish straw-coloured, ca. 3.8 mm long (incl. the 0.7–0.8 mm long, cylindrical and smooth, cone). The achene spinules are moderately long, rather thin, straight. Rostrum 9–10 mm long.

*Taraxacum porcellisinus* has been determined as both *T. angustisquameum* H. Lindb. and *T. melanostigma* Dahlst. ex H. Lindb., the two species which look most like *T. porcellisinus*. *Taraxacum angustisquameum* has longer (14–15 mm) outer bracts which are usually forming a patent  $\pm$  regular collar. The lateral lobes of *T. angustisquameum* are more irregular and usually more distant than in the present species, and downwards pointing teeth on lower lobe edges are rarely seen. *Taraxacum angustisquameum* has larger flowerheads (ca. 50 mm) and achenes with a shorter cone (0.4–0.5 mm), recurved spinules and a longer rostrum

(ca. 12 mm). *Taraxacum melanostigma* usually has very dark blackish green buds and blackish stigmas. The lateral lobes of outer leaves of *T. melanostigma* usually have a clearly convex upper edge and are more distant. The leaf lobes nowhere tend to become acuminate. Besides, *T. melanostigma* very often lacks pollen, which is not the case in *T. porcellisinus*.

*Taraxacum porcellisinus* is best known from the type location, where it is abundant. It has been collected there 1973–1997. It has only been found elsewhere in S Finland, Nylandia, Lovisa 3.VI.1979.

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