

# Three new species of *Taraxacum* from northern Italy

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Three species of *Taraxacum* Weber new to science are reported from the region of Lago di Garda in northern Italy. *Taraxacum amplexum* Sonck, related to the *Subalpinum* group of the sect. *Palustria*, was found on the mountain La Rocca near Garda and on the slopes of Monte Baldo near Malcesine. Two species, *T. rigidipes* Sonck and *T. bidentilobum* Sonck, of the sect. *Ruderalia*, were collected from Malcesine.

Key words: Italy, *Taraxacum*, taxonomy

***Taraxacum amplexum*** Sonck, sp. nov. (Figs. 1 and 2)

*Planta mediocris, 20–30 cm alta. Folia gramineo-vel canescenti-viridia, paucilobata, glabra, petiolis sat longis, angustis, rubro-purpureis. Nervii mediani foliorum usque ad apicem sat intense purpureo-colorati et parce araneosi. Lobi laterales 2–3, integri, breves–mediocriter longi, plerumque regulariter deltoidei, ad basin lati, acuti, interdum aliquanto retroversi. Lobus terminalis vulgo ad 3–4 cm longus, 2–3 cm latus (raro major), sagittatus–hastato-triangularis, acutus, integer, marginibus saepe leviter convexus. Interlobia bene evoluta, plerumque sat brevia, ca. 3–4 mm lata; interdum interlobium dente unico majore instructum. Scapi glabri, saepe ± intense colorati. Involucrum sat nigrum, ca. 12 mm longum, 10–12 mm latum, basi rotundatum. Squamae exteriores obscure olivaceae–sat nigrae, adpressae, ovatae, subacutae vel subobtusae, 7–8 mm longae, ad 4–4.5 mm latae, sat conspicue (0.1–0.2 mm) albo-marginatae, non-corniculatae. Calathium luteum, ca. 4 cm dia-*

*metro, fere planum, ligulae marginales planae, ca. 5 mm latae, subtus stria cano-violacea notatae, ligularum dentes sordide rosei. Antherae polliniferae. Stylus et stigmata lutea. Achenium (immaturum?) stramineum, 4.6 mm longum (pyramide inclusa), superne spinulis acutis sat brevibus praeditum, inferne laeve (vel striatum), in pyramiden 0.5 mm longam, subcylindricam abiens. Rostrum 9 mm longum, pappus albidus 6 mm longus.*

Description of pollen (Sterk and den Nijs): Diameter highly variable. Specimen triploid ( $2n = 24$ ) or higher.

Holotype: Italy. Verona, Garda, S. Bernardo, on slope of Mt. La Rocca, 19.IV.1982 (with *Cephalanthera*, *Hedera*, *Hepatica* and *Lathyrus vernus*), C. E. Sonck (H). Paratype: Italy. Verona, Lago di Garda, Malcesine, on slope of Monte Baldo, 18.IV.1982, C. E. Sonck (H).

This species has certain features that point to the sect. *Palustria*: black involucre with attached outer involucre bracts. It probably belongs to the same subgroup as *Taraxacum subalpinum* Kirschner, Sonck & Štěpánek, *T. abrotanum* Kirschner,



Fig. 1. Holotype of *Taraxacum amplexum* Sonck.

Sonck & Štěpánek, *T. declivicola* Kirschner, Sonck & Štěpánek, *T. insolitum* Kirschner, Sonck & Štěpánek etc.

*Taraxacum amplexum* differs from all those species in the leaf shape. The terminal lobe of *T. subalpinum* is much narrower and smaller. The lateral lobes of *T. insolitum* are often convex and curved. *Taraxacum abrotanum* differs from *T. amplexum* in the narrow, elongate terminal lobe, and that of *T. declivicola* is more irregular, often with long and partly more dentate basal lobuli.

In May 1971, C. J. Sahlin found a new Austrian *Taraxacum* species, with almost black outer involucre bracts, in a meadow at Pyburg near the Danube (Sahlin 1972). He described it as *T. ischnolepis* Sahlin. It somewhat resembles *T. amplexum*, but the latter clearly differs in having a rounded basis of involucre and bigger flower heads as well as much larger outer involucre bracts.



Fig. 2. Achenes of *Taraxacum amplexum* Sonck ( $\times 15$ ). Photo by Tuuli Timonen.

Sahlin (1979) described *Taraxacum oligolobatum* Sahlin, based on the specimen Lippert 13047 in Lippert's herbarium in Munich. It is reminding of *T. amplexum*, but has pale green petioles, while those of *T. amplexum* are red.

***Taraxacum rigidipes* Sonck, sp. nov. (Fig. 3)**

*Planta parva–mediocris, 15–20 cm alta. Folia firmula, obscure viridia, oblongo–lanceolata, lobata, acuta, petiolis sat longis, angustis et rigidis, ad basin (cum nervo mediano)  $\pm$  sordide violaceis. Nervus medianus superne viridis. Lobi laterales (foliorum intermediorum) 5–6 utrinque, sat*

*anguste deltoidei, acuti, patentes, in margine superiore saepe dentati vel denticulati. Lobus terminalis vulgo sagittatus. Folia interiora ca. 10 cm longa, cum lobo terminali permagno (ca. 4 × 2.5 cm). Interlobia bene evoluta, ca. 3 mm lata, anguli loborum non-plicatuli et non-atrimarginati. Scapi ± colorati, sub involucre densiter araneosi, ceterum parce araneosi. Involucrum sat parvum (ca. 12 mm longum, 8–9 mm latum) fusco-viride. Squamae exteriores ca. 6–7 mm longae, 2–2.5 mm latae, reversae, non-corniculatae, olivaceo-virides. Squamae interiores non-corniculatae. Calathium pallide luteum, 3–3.5 cm diametro. Ligulae marginales planae, subtus stria cano-violaceae notatae. Antherae polliniferae. Stigmata sat obscura. Achenium ignotum.*

Holotype: Italy. Lago di Garda, Malcesine, on roadside near A. Antonio Bordai, 18.IV.1982, C. E. Sonck (H; isotype H).

*Taraxacum rigidipes* is probably closely related to *T. perrigidum* Sonck (cf. Sonck 1983). Both species produce pollen and are triploid ( $2n = 24$ ) or possibly higher. The stigmata of *T. perrigidum* are green, while those of *T. rigidipes* are much darker. In *T. rigidipes* the upper margins of the lateral leaf lobes are usually very densely serrate by small, short teeth. The corresponding teeth of *T. perrigidum* are more widely spaced, somewhat longer, and subulate. The terminal lobes of most leaves of *T. perrigidum* are slightly elongated against the sharp leaf apex, while those of *T. rigidipes* are more shortly triangular. In *T. rigidipes*, the petiole and midvein are reddish only basally, the upper parts being pure green. The midvein in the leaves of *T. perrigidum* is red from base to apex. The scapi of *T. perrigidum* are completely glabrous. In *T. rigidipes* they are relatively densely hairy, especially below the involucre.

*Taraxacum rigidipes* belongs in the section *Vulgaria* or *Ruderalia*.

***Taraxacum bidentilobum* Sonck, sp. nov.** (Figs. 4 and 5)

*Planta mediocriter alta, sat gracilis. Folia gramineo-viridia lanceolata–sat angusta, 4–5 lobata, sat densiter araneosa, petiolis angustis, pallidis, ad basin ± sordide rubro-violaceis. Lobi laterales deltoidei, acuti, plerumque ± patentes, in margine*



Fig. 3. Holotype of *Taraxacum rigidipes* Sonck.

*superiore prope interlobium saepe 1–2, vel 3 minore dente acute instructi. Lobus terminalis sagittato–triangularis, raro ± hastatus, saepe in uno latere incisus. Interlobia partim ± longa, sat angusta, plerumque ± integra. Scapi olivacei, ± araneosi, floriferi foliis longiores. Involucrum parvum, 10 mm longum, 8–10 mm latum, obscure olivaceum. Squamae exteriores laxe reversae, ca. 10 mm longae, 1.5–2 mm latae, lanceolatae, obscure olivaceae, anguste albo-marginatae, ± laeves. Squamae interiores ad 13 mm longae, non-corniculatae. Calathium laete luteum, sat parvum. Ligulae marginales planae, subtus stria fusco-violacea notatae, ligularum dentes sordide rubro-violacei. Antherae parce polliniferae, stylus luteus, stigmata virescentia. Achenium (immaturum?) stramineum, 33.5 mm longum (pyramide inclusa), superne spinulis conicis, breviusculis, erecto-patentibus sat dense praeditum, ceterum rugosum vel microtuberculatum, in pyramiden 0.6 mm longam, subcylindricam abiens. Rostrum 10 mm longum. Pappus albidus 4 mm longus.*

Holotype: Italy. Lago di Garda, Malcesine, 18.IV.1982, C. E. Sonck (H).

*Taraxacum bidentilobum* belongs in the section *Vulgaria* or *Ruderalia*.



Fig. 4. Holotype of *Taraxacum bidentilobum* Sonck.

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Fig. 5. Achenes of *Taraxacum bidentilobum* Sonck ( $\times 15$ ). Photo by Mauri Korhonen.

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