
New species of the genus *Taraxacum* (Asteraceae) from Germany I

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Abstract: UHLEMANN, I. 2004: New species of the genus *Taraxacum* (Asteraceae) from Germany I. *Schlechtendalia* **12**: 119–136.

The present paper contains the description of three new species of the genus *Taraxacum* (Asteraceae): *T. collarispinulosum*, *T. caninum* and *T. hempelianum*. All species belong to the section *Ruderalia*. Their known distribution comprises mainly the eastern part of Germany.

Zusammenfassung: UHLEMANN, I. 2004: Neue Arten der Gattung *Taraxacum* (Asteraceae) aus Deutschland I. *Schlechtendalia* **12**: 119–136.

In der vorliegenden Arbeit werden drei Arten der Gattung *Taraxacum* (Asteraceae), *T. collarispinulosum*, *T. caninum* und *T. hempelianum* neu beschrieben. Alle Arten gehören zu der Sektion *Ruderalia*. Ihre bislang bekannte Verbreitung konzentriert sich hauptsächlich auf das östliche Deutschland.

Introduction

The genus *Taraxacum* F.H. WIGG. comprises about 2500 described species which are classified into c. 45 sections (KIRSCHNER & ŠTĚPÁNEK 1997). Among them, the section *Ruderalia* KIRSCHNER, H. ØLGAARD & ŠTĚPÁNEK (Common Dandelions) is the most differentiated group with approximately 1000 described species worldwide. In Central Europe, species from this section occupy many anthropogenous habitats, such as meadows, pastures, roadsides, ruderal places, with millions of individuals and seem to be one of the most adaptive and successful groups of angiosperms. Nevertheless, our taxonomic knowledge of this section, in particular in Germany, is still insufficient.

Until now, about 370 described *Taraxacum* species are known from Germany (SACKWITZ et al. 1998, UHLEMANN et al. 2004) and it is supposed that this number reflects only 20–30 % of the really existing *Taraxacum* species in this country (UHLEMANN 2003).

In this paper three species of the genus *Taraxacum* which all belong to the section *Ruderalia* are described as new to science. As far as already known, all of them have an area of distribution which has an extension of more than 200 km in diameter and they are mainly found in the eastern part of Germany.

Taraxacum* sect. *Ruderalia* Kirschner, H. Øllgaard & Štěpánek**Taraxacum collarispinulosum* Uhlemann, sp. nov.**

[*T. collarispinulosum*, nom. prov. (UHLEMANN 1999, 2003, MEIEROTT 2001)]

Holotype: Deutschland, Brandenburg, Beeskower Seengebiet, Schwielochsee, Hoffnungsbay, Jessern S, Straßenrand, 1.5.2003, leg. Uhlemann (DR 026049).

Exsiccata: *Taraxaca Exsiccata*, ed. by J. Kirschner & J. Štěpánek, *Divisio Biostatistica*, Inst. Bot. Acad. Sci, Bohem. (Pruhonice, Czech Rep.), Fasc. XIII, 615 (2003).

Descriptio: (Figs 1, 2, 7A, 8A)

Planta mediocriter alta (15–25 cm), gracilis. Folia viridia ad laete canoviridia, plerumque glabrescentia vel parce araneosa. Petioli anguste alati, lucide purpurei. Nervus medianus (sordide) viridis ad parce brunnescens. Folia distincte lobata; lobi laterales (5–)6–7 utrimque, deltoidei, patentes vel parum recurvi, acutis, integris vel in marginibus superioribus saepe uno dente conspicuo instructo, in marginibus inferioribus raro uno dente minuto instructo; lobus terminalis plerumque parvus, lobulo apicali saepe elongato ad linguati-protracto, in foliis interioribus major; interlobia acutangula, plana, saepe picei-colorata. Scapi sub involucri valde, ceterum parce araneosi, brunneo-viridia. Involucrum atro-viride, non pruinose. Squamae exteriores retroflexae, regulares, anguste lanceolatae, 1,5–2,5 mm latae, 14–17 mm longae, non marginatae, supra laete cano-virides. Calathium 35–40 mm diametro, luteum, radians. Ligulae marginalis planis, subtus stria caniviolacea instructae. Antherae vacuae vel rarius polliniferae, stylus superne obscura atriviridia. Achenium fusco-stramineum, 3,3–3,8 mm longum (pyramide exclusa), superne collarispinulosum, spinulis mediocriter longis, ± rectis, pyramide c. 0,5 mm longa, subcylindrica, laevi, rostrum c. 10 mm longum, pappus albus.

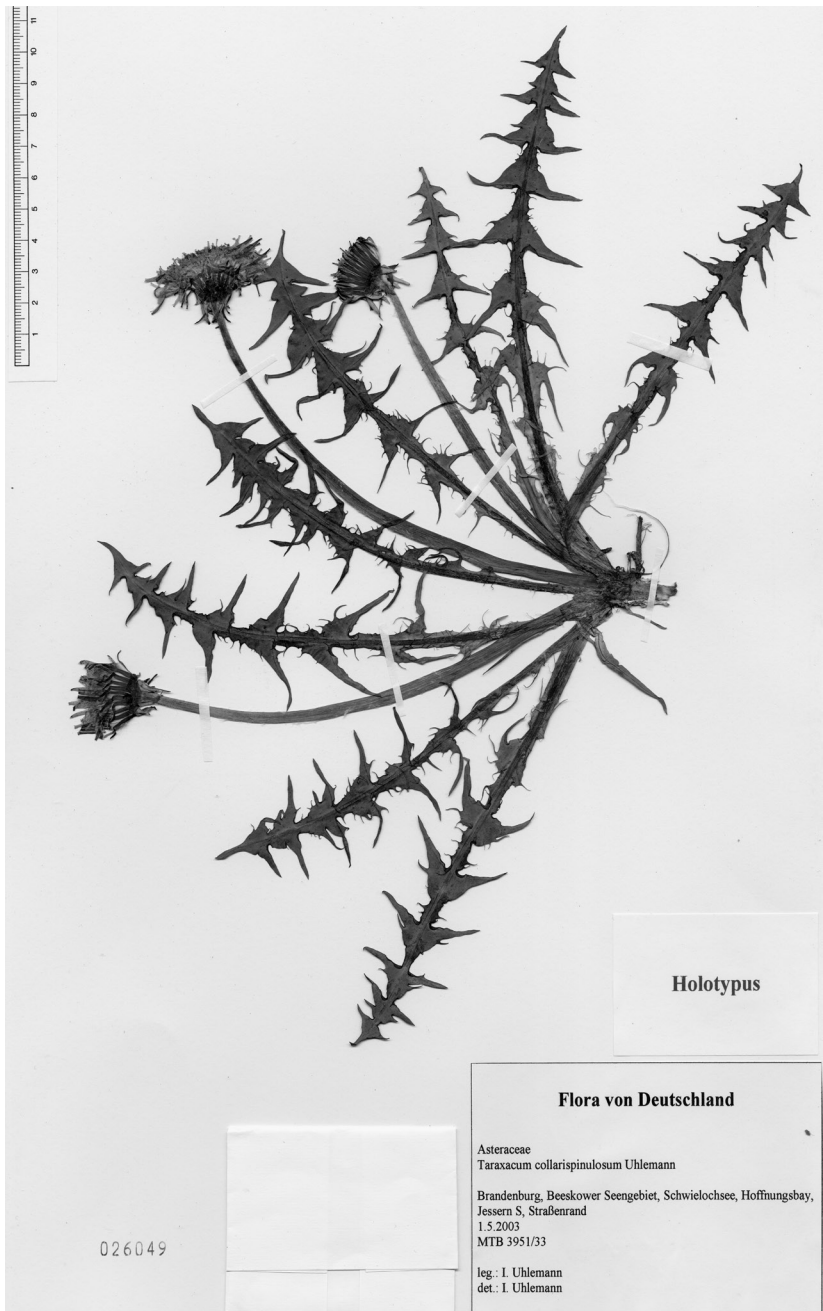
Chromosomatum numerus somaticus: $2n=24$.

T. collarispinulosum is well characterised by its dark, blackish-green involucre and blackish styles. It usually lacks pollen but rarely some heads/flowers produce some pollen-grains (gynodioecy). The outer bracts are small, recurved and unbordered. The lateral lobes are numerous (6–7 pairs), patent with a parallelous incision or a big tooth on the distal margin. With respect to its external morphology this species belongs to the *Taraxacum melanostigma*-group. From other members of this group it mainly differs by its gracile habit and the numerous, patent sidelobes.

Distribution (Map 1) (MTB = topographical map 1 : 25,000 with a grid number)

Until now, *T. collarispinulosum* is known from the eastern and central part of Germany, where it was found in six districts.

Specimens seen: Germany, Bavaria, Franken, Haßfurth, ruderal im Bahnhofsgelände, 7.5.1998, leg. Uhlemann (DR 001154); Bayern, Franken, Waldweg bei Weichtungen, Mai 1999, leg. Meierott **MTB 5727/432** (herb. Meierott 99/111); Bayern, Franken, Schweinfurt, Zentrum, Rasen nahe dem Kreuzungspunkt, 2000, leg. Meierott **MTB 5927/144** (herb. Meierott 2000/270); Bayern, Franken, Straßenböschung am Bahnhof Sennfeld, 2000, leg. Meierott **MTB 5927/322** (herb. Meierott 2000/47); Bayern, Franken, Schweinfurt, Wehrwäldchen, 2000, leg. Meierott **MTB 5927/322** (herb. Meierott 2000/270); Bayern, Franken, Straßenböschung am Hauptbahnhof Schweinfurt, 2000, leg. Meierott



Holotypus

Flora von Deutschland

Asteraceae
Taraxacum collarispinosum Uhlmann

Brandenburg, Beeskower Seengebiet, Schwielochsee, Hoffnungsbay,
Jessen S, Straßenrand
1.5.2003
MTB 3951/33

leg.: I. Uhlmann
det.: I. Uhlmann

Fig. 1: *Taraxacum collarispinosum* Uhlmann, sp. nov. – holotype specimen (DR 026049).

MTB 5927/323 (herb. Meierott 2000/49); Bayern, Franken, nördl. Breitengrießbach, Baggerseegelände, 2002, leg. Meierott **MTB 6031/123** (herb. Meierott 02/193); **Berlin**, Friedrichshain, Besarinstr., Wegrand, 25.5.1992, leg. Uhlemann **MTB 3446/43** (DR 002984); **Brandenburg**, Havelland, Friesack N, Zootzen-Damm, Straßenrand im Ort, 14.5.1999, leg. Uhlemann **MTB 3241/2** (DR 002973); Brandenburg, Cottbus, Bonnaskenplatz/E.-Haase-Str., 21.5.2000, leg. Brunk **MTB 4252/13** (herb Brunk 56/2000); Brandenburg, Niederlausitz, Bad Liebenwerda N, Wahrenbrück, Aue der Schwarzen Elster, nordöstlich der Stadt, 2.5.2001, leg. Uhlemann **MTB 4446/1** (DR 005965); **Saxony-Anhalt**, Altmark, Colbitz-Letzlinger Heide, Magdeburg NW, Haldensleben E, Straße nach Neuenhofe, Kiefernforst, 3.5.2002 **MTB 3634/4** (DR 007083); Sachsen-Anhalt, Jessen NW, Listerfehrda, Wiesen SE des Dorfes, 2.5.2001, leg. Uhlemann **MTB 4143/3** (DR 004326); Sachsen-Anhalt, Halle W, Teutschenthal NW, zwischen Seeburg und Langenbogen, Straßenrand am Bindersee, 28.4.2002, leg. Uhlemann **MTB 4536/1** (DR 007053); Sachsen-Anhalt, Halle-Ost, Landesamt für Umweltschutz, Reideburger Str. 47, Hofgelände, 27.4.2001, leg. Uhlemann **MTB 4538/1** (DR 004303); Sachsen-Anhalt, Merseburg, Straßenrand am Schloß, 12.5.2001, leg. Uhlemann **MTB 4637/2** (DR 004539); Sachsen-Anhalt, Saaletal, Naumburg, Ringstraße an der südlichen Stadtmauer, Wegrand, 13.4.2002, leg. Uhlemann **MTB 4836/2** (DR 007185); Sachsen-Anhalt, Saaletal, Naumburg SW, Bad Kösen, NE Ortseingang, Weide, 13.4.2002, leg. Uhlemann **MTB 4836/3** (DR 007102); **Saxony**, Oberlausitz, Hoyerswerda NO, an der B 97, Abzweig Burg, 8.5.1999, leg. Hahn **MTB 4551/34** (DR 002972); Sachsen, Oberlausitz, Naundorf, im Ort, 4.5.1999, leg. Otto **MTB 4648/24** (DR 002977); Sachsen, Vogtland, Störnthal, am Wegrand zur alten Schäferei, Mai 1996, leg. Horbach **MTB 4740/42** (DR 002981); Sachsen, Leipziger Land, Leipzig S, Dreiskau, Straßenrand an der Kirche, 2.5.1998, leg. Uhlemann **MTB 4740/44** (DR 001219); Sachsen, Elbtal, Meissen NW, Diesbar Seußnitz, Löbsal, ruderal im Dorf, 4.5.2001, leg. Uhlemann **MTB 4746/41** (DR 006089); Sachsen, Oberlausitz, Kamenz SO, Crostwitz N, Wiese am Denkmal, 2.5.1996, leg. Hahn **MTB 4751/32** (DR 001145, 001152); Sachsen, Oberlausitz, Bautzen NO, Doberschütz, Deichweg, Mai 1997, leg. Friese **MTB 4752/44** (DR 002980); Sachsen, Meissen NW, Ketzerbachtal, Straßenrand zwischen Prossitz und Wachtnitz, 4.5.1999, leg. Uhlemann **MTB 4846/1** (DR 002975); Sachsen, Oberlausitz, Uhyst SE, Taucherwald, 13.5.2001, leg. Otto **MTB 4851/12** (GLM); Sachsen, Oberlausitz, Bischofswerda, Goethe-Gymnasium, Wirtschaftshof, Wegrand, 7.5.1997, leg. Meyer **MTB 4851/31** (DR 001155); Sachsen, Mulde-Lößhügelland, Eula bei Nossen, Weide im Dorf, 7.5.1998, leg. Uhlemann **MTB 4945/24** (DR 001171); Sachsen, Westseite der Struth bei Limbach, Talfettwiese, 30.4.1995, leg. Ranft **MTB 4946/42** (DR 002978); Sachsen, Wilsdruffer Platte, Mohorn, 17.5.1992, leg. Uhlemann & Ristow **MTB 4946/44** (DR 001148); Sachsen, Dresden, Zschonergrundstr., Wegrand, 29.4.1996, leg. Uhlemann **MTB 4948/11** (DR 001146); Sachsen, Dresden, Bautzener Str., Waldschlößchen, Mauerfuß, 3.3.1995, leg. Hahn **MTB 4948/24** (DR 002985); Sachsen, Dresden, Innenstadt, Petersburger Str., Wegrand, 3.4.2000, leg. Uhlemann **MTB 4948/32** (DR 003010); Sachsen, Dresden-Mitte, Ehrlichstr./Könneritz, Rasen, 25.4.2001, leg. Uhlemann **MTB 4948/32** (DR 005525, 005526, 005529, 005530); Sachsen, Dresden, Südvorstadt, Zellescher Weg 22, Rasen, 26.4.1996, leg. Uhlemann **MTB 4948/32** (DR 001147); Sachsen, Dresden, Südvorstadt, Münchner Str., 7.4.1998, leg. Uhlemann **MTB 4948/32** (DR 001227); Sachsen, Dresden, Stübellee, Rasen vor den Neubauten, 1.4.1998, leg. Uhlemann **MTB 4948/41** (DR 001226); Sachsen, Oberlausitz, Langenwolmsdorf NO, westl. der ehem. Ziegelei, Feldrain, 30.4.2003, leg. Otto **MTB 4950/24** (GLM); Sachsen, Osterzgebirge, Kreischa W, Quohrener Kipse, Feldweg nach Kreischa, 9.5.2001, leg. Uhlemann **MTB 5048/3** (DR 006600); Sachsen, Oberlausitz, Oberoderwitz, nördl. vom Spitzberg, Wiese 15.5.1999, leg. Heinzel **MTB 5054/13** (DR 002976); Sachsen, Osterzgebirge, Dippoldiswalde S, Ulberndorf, Frauendorfer Str., Weide an der Verlängerung der Straße, 3.5.1999, leg. Uhlemann **MTB 5148/11** (DR 002974); Sachsen, Osterzgebirge, Liebenau, Wegrand am Kuhstall, 3.5.1998, leg. Uhlemann **MTB 5249/11** (DR 001172); Sachsen, Erzgebirgsbecken, Zschocken b. Hartenstein, Feldweg, 6.5.1998, leg. Uhlemann **MTB 5342/11** (DR 001173); Sachsen, Vogtland, Schwand, trockener Feldweg am Schutzberg, Mai 1996, leg. Horbach **MTB 5538/31** (DR 002982); Sachsen, Vogtland, Wegraime am Bahnhof Pirk, Mai 1996, leg. Horbach **MTB 5538/32** (DR 002979); Sachsen, Auerbach/V., Sportplatz, 16.5.1960, leg. Reichenbach (JE); **Thuringia**, Bad Frankenhausen, Rottleben, Wiese beim Parkplatz an der Barbarossahöhle, 29.5.1992, leg. Uhlemann **MTB 4632/1** (DR 002983).

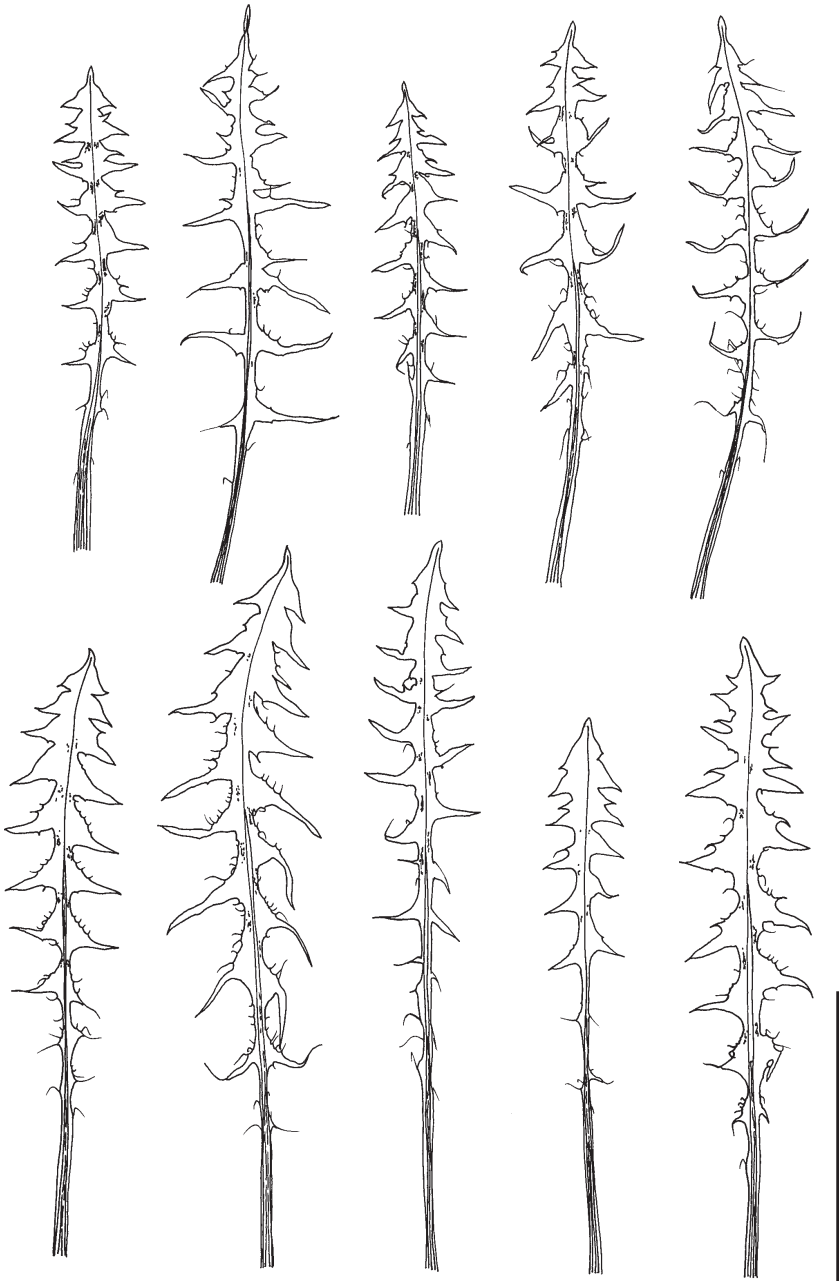
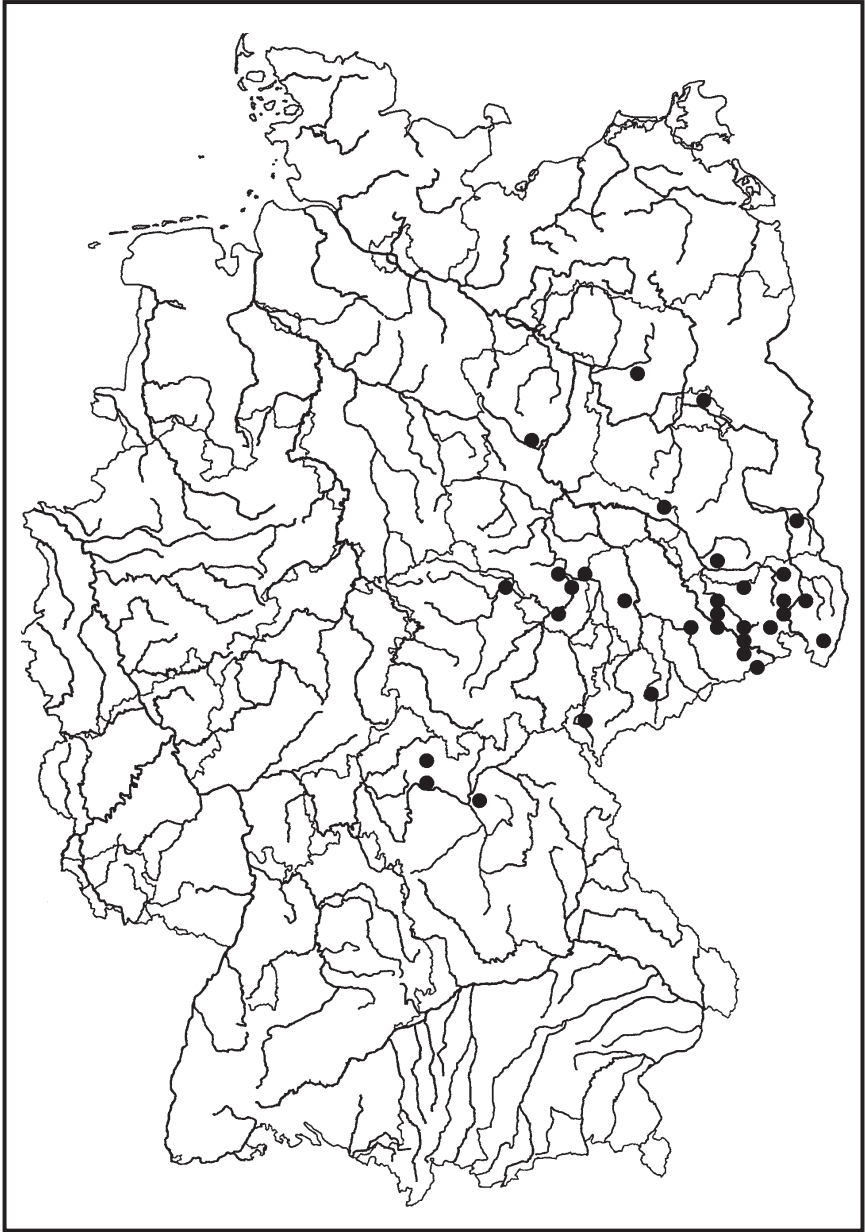


Fig. 2: *Taraxacum collarispinulosum* Uhlmann. Morphological variability of leaves. Scale bar: 10 cm.



Map 1: Known distribution of *Taraxacum collarispinulosum* Uhlemann.

***Taraxacum caninum* Uhlemann, sp. nov.**

[*T. caninum*, nom. prov. (UHLEMANN 2003), *T. retroflexum-rotundatum*, nom. prov. (SACKWITZ & UHLEMANN 2002)]

Holotype: Deutschland, Sachsen, Dresdener Elbtalweitung, Dresden, Südvorstadt, Zellescher Weg 22, Rasen am Seminargebäude I, 10.5.2000, leg. I. Uhlemann (DR 026059). Isotypes: (DR 026056, 026057, 026058).

Exsiccata: *Taraxaca Exsiccata*, ed. by J. Kirschner & J. Štěpánek, Divisio Biosystematica, Inst. Bot. Acad. Sci, Bohemoslov. (Pruhonice, Czech Rep.), Fasc. XIII, 614 (2003).

Descriptio: (Figs 3, 4, 7B, 8B)

Planta alta et robusta. Folia laeta viridia, ad 30 cm longa, plerumque glabrescentia. Petioli anguste alati, purpurei. Nervus medianus viridis vel sordide brunneus. Folia distincte lobata; lobi laterales (3–)4–5(–6) utrimque, deltoidei, recurvi vel subhamati, acutis, saepe integris vel in marginibus superioribus parce dentato; lobus terminalis magnus vel in foliis interioribus conspicue major, sagittatus, saepe incisus; interlobia acutangula, plana, viridia, parce dentata. Scapi sub involucri valde, ceterum parce araneosi, brunneo-viridia. Involucrum subobscurum viride, non vel leviter pruinosum. Squamae exteriores recurvae, apicibus incurvis, regulares, late lanceolatae, 3–4 mm latae, 14–18 mm longae, distincte albimarginatae, supra laete cano-virides, interdum leviter violascentes. Calathium c. 50 mm diametro, luteum, radians. Ligulae marginalis planis, subtus stria caniviolacea instructae. Antherae polliniferae, stylus superne virescentia. Achenium stramineum, c. 3 mm longum (pyramide exclusa) superne spinulosum, spinulis mediocriter longis, mediocriter validis, rectis, pyramide c. 0,5 mm longa, subcylindrica, laevi vel interdum subspinulosa, rostrum 8–10 mm longum, pappus albus.

Chromosomatum numerus somaticus: $2n=24$.

T. caninum is a typical member of the section *Ruderalia*. It has more or less glabrous leaves with somewhat recurved or slightly hamate sidelobes and a long and sagittate terminal lobe. Its petiols are purple-colored and only slightly winged. The outer bracts are distinctly bordered and recurved with incurved tips. The closest morphological relative of *T. caninum* is *T. retroflexum*, which has also bordered outer bracts and a somewhat similar leaf-morphology. But the outer bracts in *T. caninum* are not so strongly reflexed like those in *T. retroflexum* and have in contrast to the latter species incurved tips. Beside these characters, *T. caninum* is well distinguished from all known species of the *T. retroflexum*-group by its conspicuous long and sagittate terminal lobe.

Distribution (Map 2)

T. caninum is presently known from the eastern, central and northern part of Germany. In particular, it occurs frequently in Dresden (Saxony) and its vicinity.

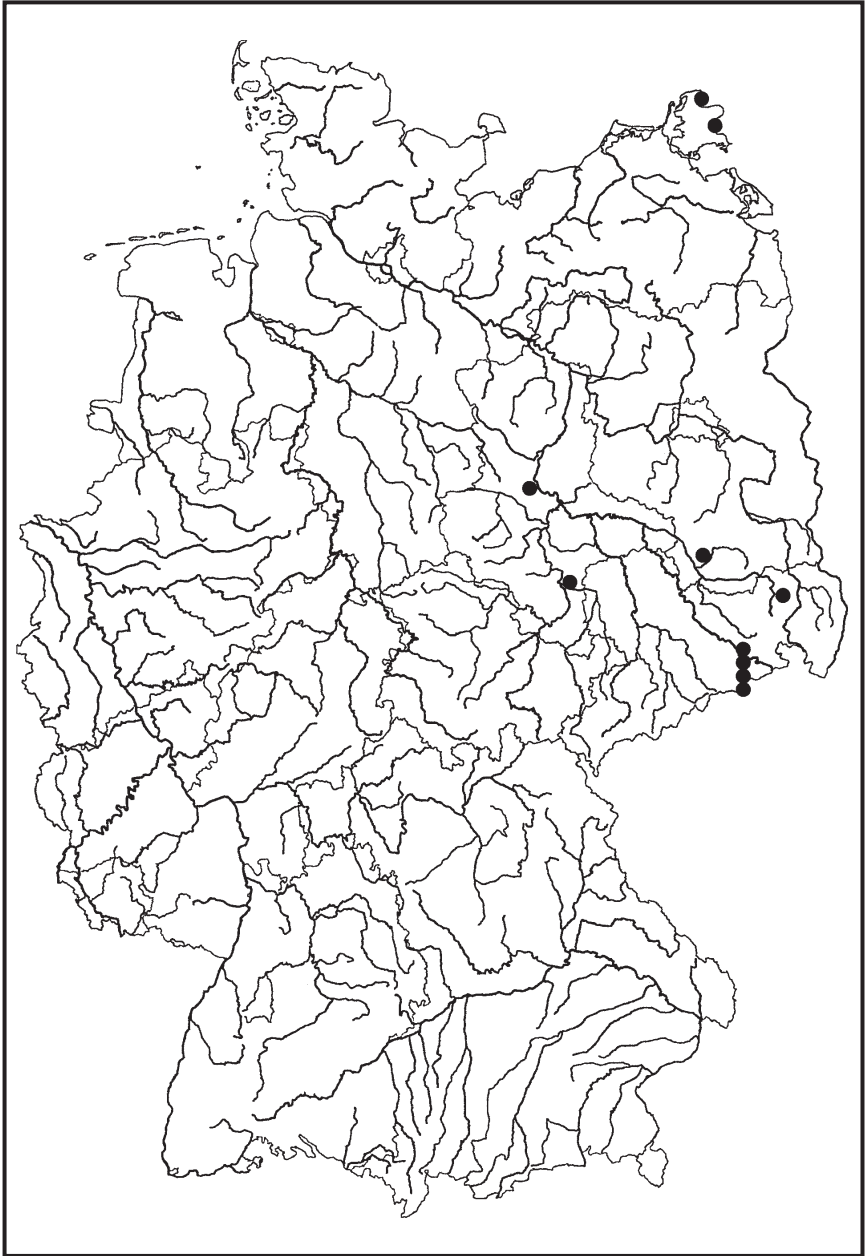
Specimens seen: **Germany: Brandenburg,** Niederlausitz, Bad Liebenwerda N, Wahrenbrück, Aue der Schwarzen Elster nordöstlich der Stadt, 2.5.2001, leg. Uhlemann **MTB 4445/1** (DR 005962); **Mecklenburg-Western Pomerania,** Insel Rügen, Altenkirchen N, Einfahrt zum Hof Wollin, Graben-



Fig. 3: *Taraxacum caninum* Uhlemann, sp. nov. – holotype specimen (DR 026059).



Fig. 4: *Taraxacum caninum* Uhlmann. Morphological variability of leaves. Scale bar: 10 cm.



Map 2: Known distribution of *Taraxacum caninum* Uhlmann.

rand, 16.5.1999, leg. Uhlemann **MTB 1346/14** (DR 026051), Insel Rügen E, Neu Mukran, Dünen, 16.5.1999, leg. Uhlemann **MTB 1547/14** (DR 026053); **Saxony-Anhalt**, Magdeburger Börde, Magdeburg S, nördl. Ortsausgang von Bahrendorf, Wegrand, 7.5.2003, leg. Uhlemann **MTB 3935/3** (herb. Uhlemann); Sachsen-Anhalt, Halle SW, Holleben S, Auewiesen der Saale und des Mühlgrabens, 16.5.2001, leg. Uhlemann **MTB 4537/3** (DR 004360); **Saxony**, Oberlausitz, Königswartha NW, Entenschänke N, Wegrand am Teichgebiet Biwatsch, 25.4.1998, leg. Hahn **MTB 4651/42** (DR 026055), Sachsen, Dresden, Räcknitzhöhe, 13.4.1999, leg. Uhlemann **MTB 4948/32** (DR 001571); Dresden, Innenstadt, Petersburger Str., Wegrand, 3.4.2000, leg. Uhlemann **MTB 4948/32** (DR 003009); Sachsen, Dresden, Südvorstadt, Hübnerstr., Rasen vor den Neubauten, 16.5.1999, leg. Uhlemann **MTB 4948/32** (DR 026054); Sachsen, Osterzgebirge, Dippoldiswalde NE, Karsdorf, Weide am Ortseingang, 9.5.2001, leg. Uhlemann **MTB 5048/31** (DR 006183); Sachsen, Osterzgebirge, Dippoldiswalde, Straßenrand an der Förderschule, 26.4.2002, leg. Uhlemann **MTB 5148/11** (DR 026050); Sachsen, Osterzgebirge, Zinnwald-Georgenfeld, Lugsteinhof, Wiese, 22.5.1998, leg. Uhlemann **MTB 5248/41** (DR 001165).

Taraxacum hempelianum Uhlemann, sp. nov.

[*T. hempelianum*, nom. prov. (UHLEMANN 2003)]

Holotype: Deutschland, Sachsen, Dresden, Südvorstadt, Eisenstückstraße/Hübnerstraße, Rasen, 17.4.1997, leg. Uhlemann (DR 006194). **Isotypes:** (DR 006189, 026065, 026066, 026067, 026068, 026069, 026070).

Descriptio: (Figs 5, 6, 7C, 8C)

Planta mediocriter alta et robusta. Folia subobscure canoviridia et parum glaucescentia, plerumque glabrescentia vel in foliis interioribus \pm araneosa. Petioli anguste ad late alati, purpurei. Nervus medianus sordide viridis ad brunnescens. Folia distincte lobata; lobi laterales 5–6 utrimque, deltoidei, retroversus vel raro parum patentes, acutis, in marginibus superioribus saepe uno dente conspicuo vel lobulo parallelo instructo, raro integris; lobus terminalis mediocriter magnus, lobulo apicali saepe elongato ad linguati-protracto; interlobia acutangula, plana vel leviter plicata, interdum leviter piceata. Scapi sub involucri valde ceterum parce araneosi, brunneo-viridia. Involucrum olivaceo-viride, pruinose. Squamae exteriores valde retroflexae, regulares, anguste lanceolatae, 2–3 mm latae, 14–16 mm longae, non marginatae, supra laete virides et saepe sordide rubescenti-viridia. Calathium 35–40 mm diametro, luteum, radians. Ligulae marginales planis, subtus stria caniviolacea instructae. Antherae polliniferae, stylus superne virescentia. Achenium stramineum, 3,0–3,3 mm longum (pyramide exclusa), superne spinulosum, spinulis mediocriter longis, validis, rectis, pyramide 0,8–1,0 mm longa, subcylindrica, laevi vel interdum subspinulosa, rostrum 10–12 mm longum, pappus albus.

Chromosomatum numerus somaticus: $2n=24$.

Morphologically, *T. hempelianum* is a typical member of the section *Ruderalia*, recognised by its dark greyish green and faintly bluish leaf colour and the acute, recurved or somewhat patent sidelobes which have a large tooth or more often a parallelous incision on their distal margin. Furthermore, this species is characterised by small, unbordered and strongly reflexed outer bracts, which often touch the scape. Another striking feature is the long and subcylindrical cone (0,8–1,0 mm) of the achene.



Fig. 5: *Taraxacum hempelianum* Uhlemann, sp. nov. – holotype specimen (DR 006194).

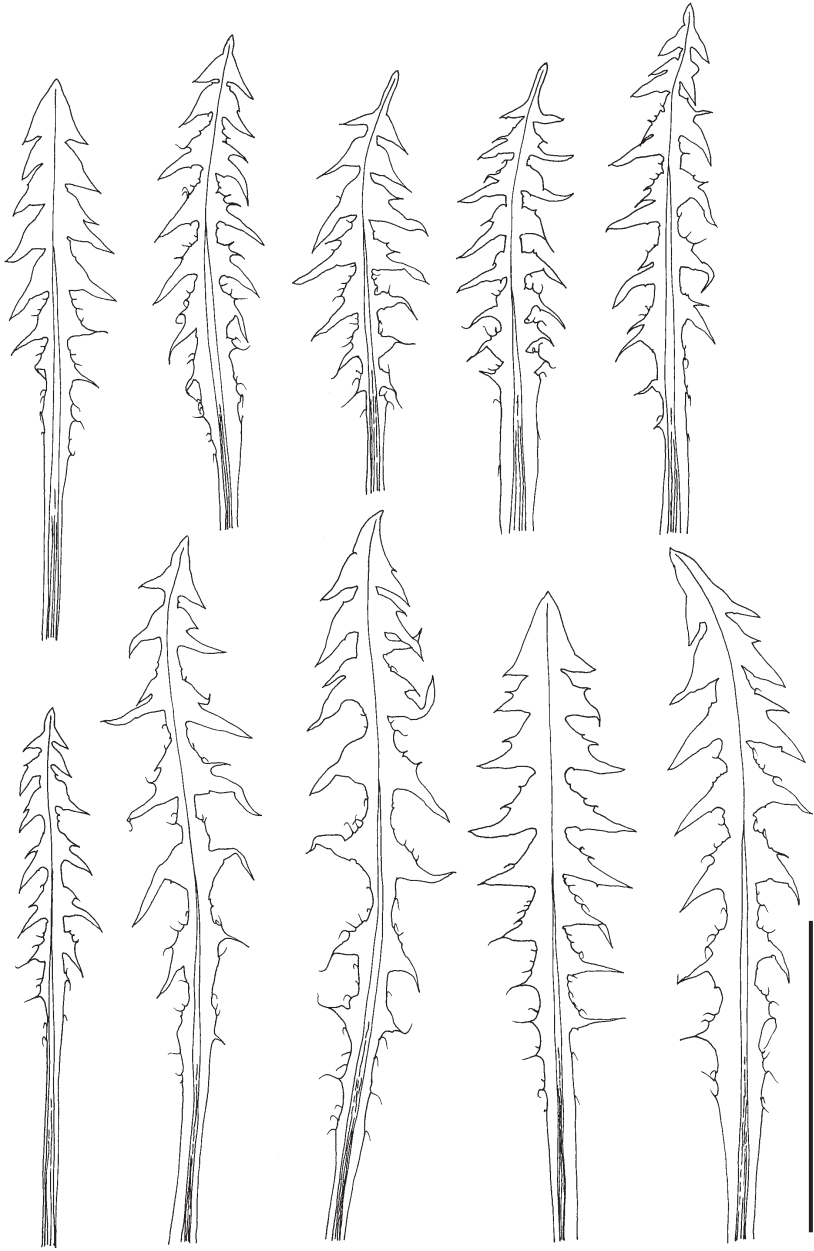


Fig. 6: *Taraxacum hempelianum* Uhlmann. Morphological variability of leaves. Scale bar: 10 cm.

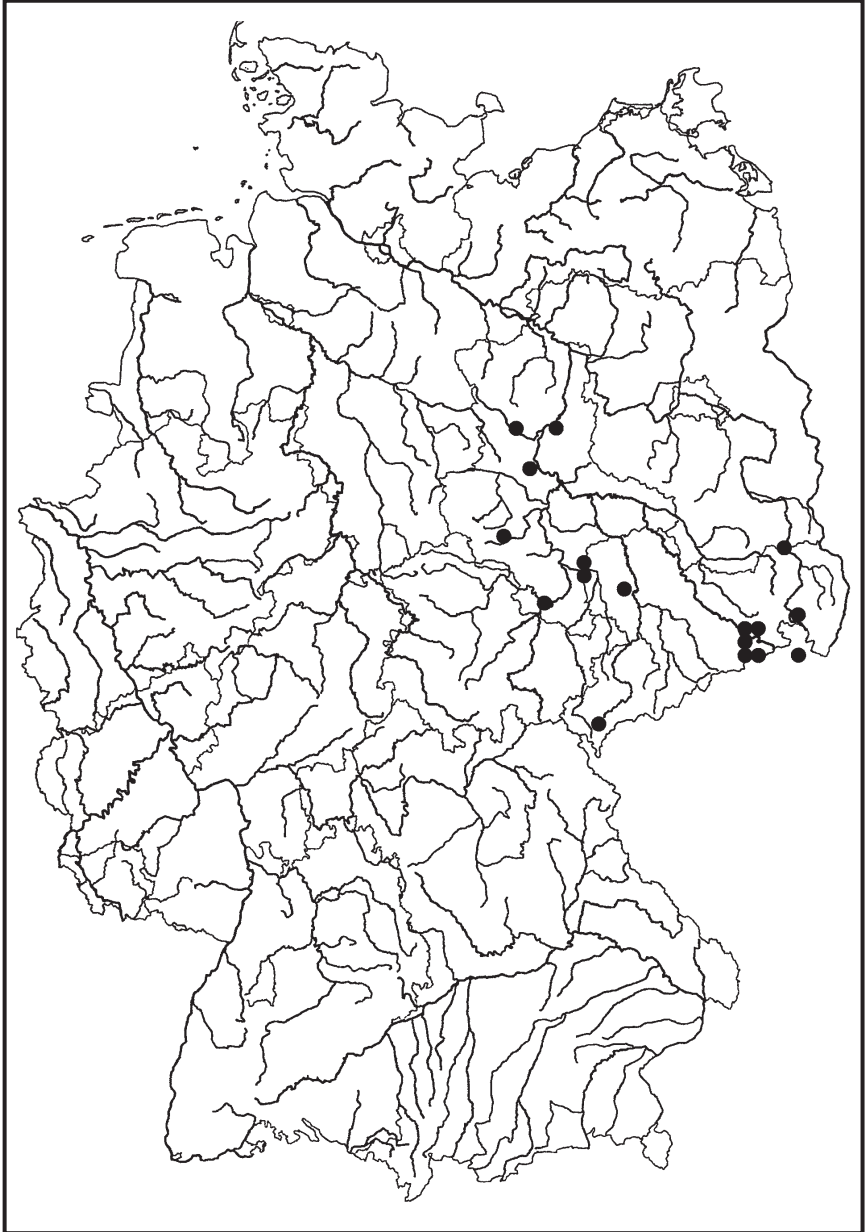
T. hempelianum must be compared with *T. aequisectum* M.P. CHRIST. ex M.P. CHRIST. & WIINST., which seems to be its morphologically closest relative. Both species have the same dark leaf colouration and a similar leaf shape, a pruinose involucrem and small lanceolate outer bracts. In contrast to *T. hempelianum*, *T. aequisectum* has only slightly recurved outer bracts with a very small white border. Furthermore, the distal margin of the leaf sidelobes is usually provided with a deep parallelous incision in *T. hempelianum* which is lacking in *T. aequisectum*. In addition, *T. hempelianum* is easily distinguishable by the long cone of the achene, which is quite unusual in the section *Ruderalia*.

Distribution (Map 3)

Until now, *T. hempelianum* was found in three districts in the eastern part of Germany and in one locality in the Czech Republic, close to the German border. In particular in Saxony it belongs to the most common species and is often abundant.

The species is named after Prof. Dr. rer. nat. Werner Hempel, an outstanding botanist and historian in Saxony.

Specimens seen: **Germany:** **Brandenburg,** Niederlausitz, Senftenberg, Großenhainer Str., Wegrand, 26.4.2003, leg. Uhlemann **MTB 4450/1** (DR 026063); **Saxony-Anhalt,** Altmark, Colbitz-Letzlinger Heide, Magdeburg NW, Haldensleben E, Straße nach Neuenhofe, Kiefernforst, 3.5.2002, leg. Uhlemann **MTB 3634/4** (DR 007096); Sachsen-Anhalt, Altmark, Colbitz-Letzlinger Heide, Wolmirstedt N, zwischen Mahlwinkel und Bertingen, Kiefernforst, 11.5.2002, leg. Uhlemann **MTB 3636/2** (DR 026060); Sachsen-Anhalt, Magdeburger Börde, Magdeburg S, nördl. Ortsausgang von Bahrendorf, Wegrand, 7.5.2003, leg. Uhlemann **MTB 3935/3** (DR 024334); Sachsen-Anhalt, Harz, Drei Annen Hohne, Ortslage, Wegrand, 25.5.2003, leg. Uhlemann **MTB 4230/1** (DR 026061); Sachsen-Anhalt, Harz, Quedlinburg W, Friedrichsbrunn, Parkplatz am östl. Ortseingang, Straßenrand, 22.5.2001, leg. Uhlemann **MTB 4332/12** (DR 006193); Sachsen-Anhalt, Halle-Ost, Landesamt für Umweltschutz, Reideburger Str. 47, Hofgelände, 27.4.2001, leg. Uhlemann **MTB 4538/1** (DR 004299); Sachsen-Anhalt, Merseburg, Straßenrand am Schloß, 12.5.2001, leg. Uhlemann **MTB 4638/1** (DR 004527); Sachsen-Anhalt, Saaleetal, Naumburg, Ringstraße an der südlichen Stadtmauer, Wegrand, 13.4.2002, leg. Uhlemann **MTB 4836/2** (DR 007174); **Saxony,** Leipziger Land, Leipzig S, Dreiskau, Straßenrand an der Kirche, 2.5.1998, leg. Uhlemann **MTB 4740/44** (DR 001220); Sachsen, Dresden-Trachau, Kopernikusstraße 31-39, Rasen im Hinterhof, 15.4.1997, leg. Uhlemann **MTB 4948/11** (DR 006190); Sachsen, Dresden-Nord, Stauffenbergallee/R.-Leonard-Str., sandige Ruderalfläche (Baulücke), 29.4.1997, leg. Uhlemann **MTB 4948/12** (DR 006184); Sachsen, Dresden, Zellescher Weg 22, ruderal am Seminargebäude I, 18.4.1995, leg. Uhlemann **MTB 4948/32** (DR 006188); Sachsen, Dresden, Südvorstadt, Bernhardtstraße, ruderal an einer Hauswand, 23.3.1998, leg. Uhlemann **MTB 4948/32** (DR 001310); Sachsen, Dresden, Nöthnitzer Straße, 21.4.1995, leg. Uhlemann **MTB 4948/32** (DR 006192); Sachsen, Dresden, Räcknitzhöhe, 13.4.1999, leg. Uhlemann **MTB 4948/32** (DR 001563); Sachsen, Oberlausitz, Kleinwolmsdorf, Böschung am Gut, 13.4.1998, leg. Hahn, **MTB 4949/22** (DR 006186); Sachsen, Oberlausitz, Wilthen, Güterbahnhof, 5.5.2002, leg. Otto **MTB 4952/12** (DR 026064); Sachsen, Osterzgebirge, Hermsdorf/W., am Rande eines Gutshofes an der Straßenkurve nach Karsdorf, 14.5.1996, leg. Uhlemann **MTB 5048/3** (DR 006191); Sachsen, Sächsische Schweiz, Bad Schandau, Bahnhof, Straßenrand, 13.5.2001, leg. Uhlemann **MTB 5050/4** (DR 026062); Sachsen, Osterzgebirge, Reinhardtsgrimma, Garten der Hauptstraße 85, spontan, 13.5.1998, leg. Uhlemann **MTB 5148/12** (DR 001399); Sachsen, Osterzgebirge, Geising N, Breitenau, Walddörfchen, Straßenrand, 19.5.2001, leg. Uhlemann **MTB 5149/3** (DR 005258); Sachsen, Vogtland, Markneukirchen, Aufschüttung am Straßenrand an der Autowaschanlage Erlbacher Straße, 2.5.1998, leg. Breitfeld **MTB 5640/33** (DR 001293). **Czech Republic,** Böhmisches Schweiz, Decin NE, Kunratice, Weide am Ortseingang, 13.5.2001, leg. Uhlemann (DR 006195).



Map 3: Known distribution of *Taraxacum hepelianum* Uhlmann.

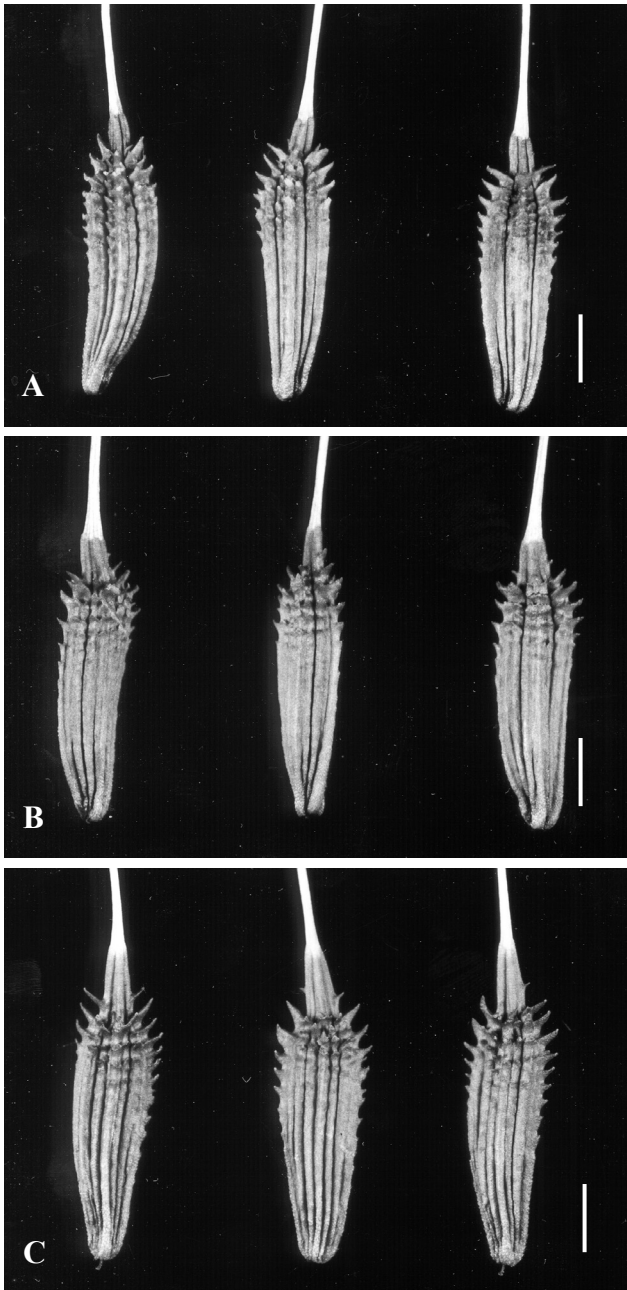


Fig. 7: Achenes. A: *Taraxacum collarispinulosum* Uhlemann, B: *T. caninum* Uhlemann, C: *T. hempelianum* Uhlemann. Scale bar: 1 mm.



Fig. 8: Flower heads and position of the outer bracts. A: *Taraxacum collarispinosum* Uhlemann, B: *T. caninum* Uhlemann, C: *T. hempelianum* Uhlemann.

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