

Notes on the series of *Taraxaca Exsiccata*, Fasc. V–VII (Studies in *Taraxacum* 16)

Poznámky o exsikátové sbírce *Taraxaca Exsiccata*, svazek V–VII (Studie rodu *Taraxacum* 16)

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A list of the exsiccate series of *Taraxaca Exsiccata*, Fasc. V–VII, is provided. Six new species are described, three species intermediate between the sections *Ruderalia* and *Palustria*, the others are common Central European species of *Ruderalia*. Nomenclatural and taxonomic notes on *T. vindobonense*, *T. quadrangulum* and *T. johannis-jansenii* are added.

Key words: *Taraxacum*, *Compositae*, exsiccates, taxonomy, nomenclature

Introduction

Since 1984, a series of *Taraxacum* exsiccates is edited by the present authors. The series (about 30 sets) reached Fascicle IX in 1996, and includes 412 exsiccate numbers. Many taxa have been distributed with provisional names in order to promote discussion among experts, some have been given important notes on the herbarium labels, others have been examined karyologically etc. Selected remarks and validation of a few taxa have already been published (Kirschner et Štěpánek 1992), dealing with Fascicles I–IV of the series. In what follows, we annotate plants distributed as Fasc. V–VII, nos. 147–322, of *Taraxaca Exsiccata*. Eighty-six species have appeared in the Fascicles V–VII, belonging to 11 sections and coming from 13 countries.

Numbered exsiccates have general importance as a universal reference means in the taxonomy of complicated groups, and in the studies of *Taraxacum* taxonomy in particular. Among the exsiccates annotated here, there are, for instance, a number of plants collected by the authors of their names in the areas of origin of type material (e.g. 147, *T. kernianum*, 150, *T. lancidens*, 182 and 246, *T. calochroum*, 245, *T. scalaefolium*, 247, *T. atonolobum*, 248, *T. subditivum*, 310, *T. multicolorans*, and 311, *T. incisiforme*). Moreover, some plants have the character of types or typoids, e.g. 157, *T. subolivaceum*, 204–206 and 211–213, *T. marmottae*, 210, *T. multisinuatum*, 255–256, *T. abrotanum*, 257, *T. pseudomurbeckianum*, 258–259, *T. insolitum*, 270, *T. uliginosum*, and 292, *T. calocarpum*.

In the Fasc. V–VII, several taxa have been given provisional names. Four of them are validated in the present paper, i. e. those that have been found at dozens of localities in several countries and that are generally known among experts. Three of them are common members of the section *Ruderalia*. The remaining one, *T. tragopogon* is a member of a group of intermediates between the sections *Ruderalia* and *Palustria*. Three species of this group have been examined in detail and are described here.

Several botanists contributed to the present paper by collecting plants or writing descriptions or notes. In order to avoid confusion caused by changes in the Tokyo

Nomenclatural Code, Art. 46.4 (Ex. 15), we state that descriptions and other elements of protologues of taxa with joint authorship (with H. Øllgaard, V. Mikoláš etc.) represent a result of joint work, and the coauthors should be cited according to Art. 46.2. This is also the case of *T. guttigestans* that should be cited with H. Øllgaard in Kirschner et Štěpánek (1992) as the author.

Abbreviations and special terms

JK = Jan Kirschner

JŠ = Jan Štěpánek

Country abbreviations = according to Flora Europaea (including Cz because the exsiccates were distributed before the split of the former Czechoslovakia)

Pseudoisotypus = Plants cultivated from the seeds of the type specimen of the respective apomictic taxon

Pseudoparatypus = Plants cultivated from the seeds of (apomictic) paratype plants

Voucher specimens are deposited in the herbarium of Institute of Botany, Academy of Sciences, if not otherwise stated. The herbarium has recently been founded; the main collections are voucher specimens of biosystematical, karyological and taxonomic studies performed by the staff of the Institute. The proposed abbreviation is PRA.

A list of *Taraxaca Exsiccata*, Fasc. V–VII

Fasciculus V. (1989)

147. *T. (sect. Hamata) kernianum* Hagendijk, van Soest et Zevenbergen 1968. – Ho, Groningen, Veendam, Borgerwold. 1986. A. Hagendijk.
148. *T. (Hamata) atactum* Sahlén et van Soest 1970. – Ho, Groningen, Veendam, Borgerwold. 1986. A. Hagendijk.
149. *T. (Hamata) hamatum* Raunkiaer 1906. – Cz, Žďár nad Sázavou, Počátky. 1984. JŠ.
Note: $2n = 24$ (det. JK sub no. 67/84)
150. *T. (Hamata) lancidens* Hagendijk, van Soest et Zevenbergen 1976. – Ho, Zuidholland, Delft, Delftsche Schie. 1986. H. Zevenbergen et A. Hagendijk.
151. *T. (Erythrocarpa) erythrocarpum* Kirschner et Štěpánek 1985. – Cz, Velká Fatra Mts, Turčianske Teplice, on limestone rocks in the valley of Gaderská dolina. 1985. J. Sádlo.
Note: Cult. in Průhonice (no JŠ 2435).
152. *T. (Palustria) hollandicum* van Soest 1942. – Cz, Chlumec nad Cidlinou, Zbraň, meadows at the pond Žehuňský rybník. 1988. J. Battjes et JK.
153. *T. (Palustria) paucilobum* Hudziok 1965. – Cz, Stará Lubovňa, Údol. 1985. JŠ.
154. *T. (Palustria) gelricum* van Soest 1965. – Ho, Gelderland, Nijkerk. 1986. JK.
Note: Cult. in Průhonice (no JŠ 2679).
155. *T. (Palustria) gelricum* van Soest – Ho, Gelderland, Nijkerk. 1986. JK.
Note: Cult. in Průhonice (no JŠ 2680).
156. *T. (Palustria) ciliare* van Soest 1965. – Ga, Lot-et-Garonne, Grayssas. 1987. J. Hofstra.
Note: Cult. in Průhonice (no JŠ 2369 et JŠ 2370).
157. *T. (Palustria) subolivaceum* C. E. Sonck 1986. – Gr, Ioannina, Metsovo. 1985. C. E. Sonck. (PSEUDO-PARATYPI!)
Note 1: Cult. in Průhonice (no JŠ 1826, JŠ 1893 et JŠ 1894).
Note 2: $2n = 32$ (det. JŠ sub no 196/86 and 197/86 from JŠ 1893 and JŠ 1894, respectively)
158. *T. (Palustria) palustre* (Lyons) Symons 1798. – Ho, isl. Terschelling. 1978. P. Oosterveld.
159. *T. (Palustria) palustre* (Lyons) Symons – Ho, Gelderland, Nijkerk. 1986. JK.
Note: Cult. in Průhonice (no JŠ 2681).

160. *T. (Palustria) palustre* (Lyons) Symons – Ho, isl. Texel, reservation “Waal en Burg”. 1987. P. Oosterveld.
Note: Cult. in Průhonice (no JŠ 2666, JŠ 2667 et JŠ 2668).
161. *T. (Palustria) palustre* (Lyons) Symons – Ho, Zwin. 1987. P. Oosterveld.
Note: Cult. in Průhonice (no JŠ 2665).
162. *T. (Palustria) palustre* (Lyons) Symons – Ho, Noordbrabant, Roosendaal, Bergen op Zoom. 1982. P. Oosterveld.
Note: Cult. in Průhonice (no JŠ 1613).
163. *T. (Palustria) vindobonense* van Soest 1965, s.l. – Cz, Komárno, between Búč and Moča. 1988. J. Battjes, JK et JŠ.
164. *T. (Palustria) vindobonense* van Soest s.l. – Cz, Komárno, Búč. 1988. J. Battjes, JK et JŠ.
165. *T. (Palustria) vindobonense* van Soest s.l. – Cz, Levoča, Levočské vrchy Mts. 1984. JŠ.
166. *T. (Palustria) vindobonense* van Soest s.l. – Cz, Štúrovo, Kamenný Most nad Hronom. 1984. JŠ.
167. *T. (Palustria) vindobonense* van Soest s.l. – Hu, Szerencs, Mezőzombor. 1985. JK.
168. *T. (Palustria) vindobonense* van Soest s.l. – Hu, Szerencs, Mezőzombor. 1985. JK.
169. *T. (Palustria) vindobonense* van Soest s.l. – Cz, Hodonín, on the meadows “Očovské louky”. 1984 et 1985. JŠ et JK.
170. *T. (Palustria) vindobonense* van Soest s.l. – Cz, Hodonín, on the meadows “Mrkotálky”. 1985. JŠ.
171. *T. (Palustria – Ruderalia) tragopogon* Kirschner et Štěpánek, sp. nov. – Cz, Kutná Hora, Pivnisko. 1986. JK.
172. *T. (Palustria – Ruderalia) tragopogon* Kirschner et Štěpánek, sp. nov. – Cz, Kladno, Třtice. 1985. JŠ.
173. *T. (Palustria – Ruderalia) tragopogon* Kirschner et Štěpánek, sp. nov. – Cz, Mariánské Lázně, Chodová Planá. 1985. JŠ. (ISOTYPI)
174. *T. (Palustria – Ruderalia) tragopogon* Kirschner et Štěpánek, sp. nov. – Cz, Kladno, between Stochov and Vašírov. 1985 and 1987. JŠ et JK.
175. *T. (Palustria – Ruderalia) tragopogon* Kirschner et Štěpánek, sp. nov. – Cz, České Budějovice, Vihlavy. 1987. JK.
176. *T. (Palustria – Ruderalia) tragopogon* Kirschner et Štěpánek, sp. nov. – Cz, Beroun, Žloutkovice. 1987. JŠ.
177. *T. (Erythrosperma) erythrospermum* Andr. in Besser 1822. – Cz, Hodonín, Rohatec. 1984 and 1985. JK.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
178. *T. (Erythrosperma) erythrospermum* Andr. in Besser – Cz, Mikulov, on the limestone hill Svatý Kopeček. 1984. JK.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
179. *T. (Erythrosperma) erythrospermum* Andr. in Besser – Cz, Znojmo. 1984. JK.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
180. *T. (Erythrosperma) erythrospermum* Andr. in Besser Cz – Znojmo, Konice. 1984. JK.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
181. *T. (Ruderalia) lucidum* Dahlstedt 1910. – Ho, Enkhuizen, reservation IJsselmeer Nat. Res. 't Ven. 1987. P. Oosterveld.
182. *T. (Ruderalia) calochroum* Hagendijk, van Soest et Zevenbergen 1972. – Ho, Zuidholland, Delft, Delftsche Scie. 1986. A. Hagendijk et H. Zevenbergen.
183. *T. (Ruderalia) porrigens* Marklund 1940. – Cz, Kutná Hora, Pivnisko. 1986. JK. Det. H. Øllgaard.
184. *T. (Ruderalia) maculatum* Jordan 1852. – Cz, Karlovy Vary, Žlutice, Knínice. 1987. JK.
185. *T. (Ruderalia) valens* Marklund 1938. – Cz, Praha, Průhonice. 1984. JK.
186. *T. (Ruderalia) exsertiforme* Hagendijk, van Soest et Zevenbergen 1978. – Cz, Frýdlant, Bílý Potok. 1988. J. Battjes, A. Hagendijk, JK, P. Oosterveld, H. Øllgaard, R. Pankhurst, JŠ, E. Wessberg et H. Zevenbergen.
187. *T. (Ruderalia) bellum* H. Øllgaard 1978. – Cz, Chlumec nad Cidlinou, Levín. 1983. H. Øllgaard, JŠ et JK.
188. *T. (Ruderalia) linearisquameum* van Soest 1966. – Cz, Poprad, Hranovnica. 1985. JŠ.
Note 1: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
Note 2: Cult. in Průhonice (no JŠ 1956).
189. *T. (Ruderalia) linearisquameum* van Soest – Cz, Modrý Kameň, Čelovce, Mikušovské Lazy. 1988. J. Battjes, JŠ et JK.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
190. *T. (Ruderalia) linearisquameum* van Soest – Cz, Šahy, Tupá. 1988. J. Battjes, JK et JŠ.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.

191. *T. (Ruderalia) linearisquameum* van Soest – Cz, Šahy, in the valley of the river Štiavnica. 1988. J. Battjes, JK et JŠ.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
192. *T. (Ruderalia) linearisquameum* van Soest. Cz, Štúrovo, Obid. 1984. JŠ.
Note: Plants from a population of sexual diploids ($2n = 16$); cf. the regular pollen.
- 193.–198. *T. (Leptocephala) stenolepium* Handel-Mazzetti 1907. – Caucasus, Gruzia, Mt. Kasbek, between Kasbegi and Vardisubani (Arša). 1985. JŠ.
Note 1: Plants from populations of sexual tetraploids ($2n = 32$); cf. the regular pollen.
Note 2: Cult. in Průhonice.

Fasciculus VI. (1990)

199. *T. (Erythrocarpa) pseudohoppeanum* Kirschner et Štěpánek 1985. – He, Kanton Wallis, Zermatt, Taeschler Alpe, 2200 m. 1987. E. Albertshofer.
Note: Cult. in Průhonice (no JŠ 3231 and JŠ 3233).
200. *T. (Erythrosperma) pseudolacistophyllum* van Soest 1956. – Cz, Dobříš, Čtvrtý Hamr. 1989. JŠ.
201. *T. (Erythrosperma) silesiacum* Dahlst. ex Haglund 1938. – Cz, Klatovy. 1987. M. Král.
Note: Cult. in Průhonice (no JŠ 3252).
202. *T. (Erythrosperma) lambinonii* van Soest 1961. – Ga, Hautes Alpes, Orcieres, Queyrelet. 1987. C. E. Sonck.
Note: Cult. in Průhonice (no JŠ 3201).
203. *T. (Erythrosperma) lambinonii* van Soest – Ga, Hautes Alpes, Orcieres, Forest des Baniols, 2200–2300 m. 1987. C. E. Sonck.
Note: Cult. in Průhonice (no JŠ 3208).
204. *T. (Erythrosperma) marmottae* C. E. Sonck 1990. – Ga, Hautes Alpes, Orcieres, Forest des Baniols, 2200–2300 m. 1987. C. E. Sonck. (PSEUDOPARATYPI !)
Note: Cult. in Průhonice (no JŠ 3198).
205. *T. (Erythrosperma) marmottae* C. E. Sonck – Ga, Hautes Alpes, Orcieres, Queyrelet. 1987. C. E. Sonck. (PSEUDOISOTYPI !)
Note: Cult. in Průhonice (no JŠ 3203).
206. *T. (Erythrosperma) marmottae* C. E. Sonck – Ga, Basses Alpes, between Jausier in Ubaye and Col de Restefond. 1984. W. Lippert and H. Merxmüller. (PARATYPI !)
Note: Cult. in Průhonice (no JŠ 2778).
207. *T. (Palustria) declivicola* Kirschner, C. E. Sonck et Štěpánek 1989. – Gr, Ioannina, Katara, Metsovo, 1450 m. 1985. C. E. Sonck.
Note: Cult. in Helsinki.
208. *T. (Palustria) friscum* van Soest 1956. – Ho, isl. Terschelling, Oosterend. 1986. JK.
Note: Cult. in Průhonice (no JŠ 2975).
209. *T. (Palustria) anglicum* Dahlstedt 1920. – Ho, isl. Terschelling, Oosterend. 1986. JK.
Note: Cult. in Průhonice (no JŠ 2976).
210. *T. (Palustria) multisinuatum* Kirschner, C. E. Sonck et Štěpánek 1989. – Gr, Ioannina, Katara, Metsovo, 1430 m. 1985. C. E. Sonck. (PARATYPI !)
Note: Cult. in Průhonice (no JŠ 3080).
211. *T. (Erythrosperma) marmottae* C. E. Sonck 1990. – Ga, Basses Alpes, Ubaye, between Jausier and Col de Restefond. 1984. W. Lippert and H. Merxmüller. (PARATYPI !)
Note: Cult. in Průhonice (no JŠ 2777).
212. *T. (Erythrosperma) marmottae* C. E. Sonck – Ga, Basses Alpes, Ubaye, between Jausier and Col de Restefond. 1984. W. Lippert and H. Merxmüller. (PARATYPI !)
Note: Cult. in Průhonice (no JŠ 2776).
213. *T. (Erythrosperma) marmottae* C. E. Sonck – Ga, Basses Alpes, Ubaye, between Jausier and Col de Restefond. 1984. W. Lippert and H. Merxmüller. (PARATYPI !)
Note: Cult. in Průhonice (no JŠ 2776).
214. *T. (Palustria) vindobonense* van Soest 1965, s. I. – Cz, Hodonín, Očovské louky. 1989. B. Trávníček.
215. *T. (Dioszegia) hypanicum* Tzvelev 1986. – Rs(W), regio Odessa, Krasnopol, between villages Sergeevka, Gulaevka and Agafeevka. 1989. JK et JŠ.
216. *T. (Hamata) boeckmanii* Borgvall 1959. – Cz, Liberec, Frýdlant, Supý vrch. 1989. JK.
217. *T. (Hamata) boeckmanii* Borgvall – Cz, Liberec, Frýdlant, Supý vrch. 1989. JK.

218. *T. (Hamata) hamatiforme* Dahlstedt in Lindman 1918. – Cz, Dobříš, Nový Knín, Kozí Hory. 1989. JŠ. Rev. H. Øllgaard.
219. *T. (Hamata) hamatiforme* Dahlst. in Lindman – Cz, Příbram, Nové Podlesí. 1990. JŠ.
220. *T. (Ruderalia) huelphersianum* Dahlstedt ex Haglund 1934. – Cz, Liberec, Raspenava. 1989. JK.
221. *T. (Ruderalia) hepaticum* Railonsala 1957. – Cz, Liberec, Raspenava. 1989. JK. Rev. H. Øllgaard.
222. *T. (Ruderalia) hepaticum* Railonsala – Cz, Liberec, Raspenava. 1989. JK. Rev. H. Øllgaard.
223. *T. (Ruderalia) macranthoides* Haglund 1943. – Cz, Praha, Průhonice. 1983. JK et JŠ. Det. H. Øllgaard.
224. *T. (Ruderalia) macranthoides* Hagl. – Cz, Praha, Průhonice, Chotobuz. 1989. JK et JŠ. Rev. H. Øllgaard.
225. *T. (Ruderalia) macranthoides* Hagl. – Cz, Praha, Klukovice. 1989. JŠ. Rev. H. Øllgaard.
226. *T. (Ruderalia) macranthoides* Hagl. – Cz, Praha, Klukovice. 1989. JŠ. Rev. H. Øllgaard.
227. *T. (Ruderalia) flagelliferum* Sahlin 1972. – Cz, Liberec, Višňová. 1989. JK. Det. H. Øllgaard.
228. *T. (Ruderalia) flagelliferum* Sahlin – Cz, Liberec, Višňová. 1989. JK. Det. H. Øllgaard.
229. *T. (Ruderalia) flagelliferum* Sahlin – Cz, Liberec, Raspenava. 1989. JK.
230. *T. (Ruderalia) elegantius* Kirschner, H. Øllgaard et Štěpánek 1991. – Cz, Strakonice, Láz, Velkolázký rybník. 1989. V. Chán, JK et V. Žila.
231. *T. (Ruderalia) piceatum* Dahlstedt 1910. – Cz, Liberec, Raspenava. 1989. JK.
232. *T. (Ruderalia) piceatum* Dahlst. – Cz, Karlovy Vary, Tatrovice. 1987. JK.
233. *T. (Ruderalia) piceatum* Dahlst. – Cz, Praha, Průhonice. 1989. JK et JŠ.
234. *T. (Ruderalia) piceatum* Dahlst. – Cz, Dobříš, Nový Knín, Kozí Hory. 1989. JŠ.
235. *T. (Celtica) gelertii* Raunkiaer 1903. – Cz, Liberec, Andělská Hora. 1989. JK.
236. *T. (Celtica) gelertii* Raunk. – Cz, Liberec, Andělská Hora. 1989. JK.
237. *T. (Ruderalia) guttigestans* H. Øllgaard 1991. – Cz, Lovosice, Třebenice. 1989. JK.
238. *T. (Ruderalia) pallidipes* Marklund 1938. – Cz, Benešov, between Nová Ves and Lišno. 1987. JK. Det. H. Øllgaard.
239. *T. (Ruderalia) cyanolepis* Dahlstedt 1911. – Cz, Liberec, Raspenava. 1989. JK.
240. *T. (Ruderalia) cyanolepis* Dahlst. – Cz, Liberec, Raspenava. 1989. JK.
241. *T. (Ruderalia) alatum* Lindberg fil. 1907. – Cz, Lovosice, Třebenice. 1989. JK.
242. *T. (Ruderalia) aequilobum* Dahlstedt 1910. – Cz, Trutnov, Malé Svatoňovice. 1984. JK.
243. *T. (Ruderalia) acervatum* Railonsala 1964. – Cz, Litoměřice, Doksany. 1989. JK.
244. *T. (Ruderalia) sellandii* Dahlstedt 1925. – Br, Anglia, Cumberland, Whitehaven. 1989. C. C. Haworth.
245. *T. (Ruderalia) scalaeifolium* Hagendijk, Oosterveld et Zevenbergen 1983. – Ho, Rotterdam, Bernisse. 1987. A. Hagendijk et H. Zevenbergen.
246. *T. (Ruderalia) calochroum* Hagendijk, van Soest et Zevenbergen 1972. – Ho, Rotterdam, Spijkenisse. 1987. A. Hagendijk et H. Zevenbergen.
247. *T. (Ruderalia) atonolobum* Hagendijk, van Soest et Zevenbergen 1972. – Ho, Rotterdam, Spijkenisse. 1987. A. Hagendijk.
248. *T. (Hamata) subditivum* Hagendijk, van Soest et Zevenbergen 1973. – Ho, Rotterdam, Spijkenisse, Breekade. 1988. A. Hagendijk.
249. *T. (Palustria) extimum* Kirschner, C. E. Sonck et Štěpánek 1989. – Gr, Trikala, Katara. 1985. C. E. Sonck. Note: Cult. in Průhonice (no JŠ 1831).
250. *T. (Palustria) crocinum* (Dahlstedt) Haglund et Nordenstam 1963. – Su, Oeland, Toernbotten. 1983. F. Krahulec. Note: Cult. in Průhonice (no JŠ 2383).
251. *T. (Celtica) johannis-jansenii* van Soest 1956. – Ho, Groot Ammers. 1989. A. Hagendijk.
252. *T. (Palustria) langeanum* Dahlstedt 1909. – Su, Gotland, St. Bjaers, Haellmark. 1979. P. Oosterveld.
253. *T. (Ceratophora) brachyceras* Dahlstedt 1906. – Svalbard, Edgeoeysa, Eilifdalen. 1987. P. Oosterveld.
254. *T. (Ceratophora) brachyceras* Dahlst. – Svalbard, Edgeoeysa, Eilifdalen. 1987. P. Oosterveld. Note: Cult. in Průhonice (no JŠ 3165).

Fasciculus VII. (1991–1992)

255. *T. (Palustria) abrotanum* Kirschner, C. E. Sonck et Štěpánek 1993. – Gr, Katara, Trikala, 1550 m. 1985. C. E. Sonck. (ISOTYPI !)
Note: Cult. in Průhonice (no JŠ 4057).
256. *T. (Palustria) abrotanum* Kirschner, C. E. Sonck et Štěpánek – Gr, Katara, Trikala, 1550 m. 1985. C. E. Sonck. (ISOTYPI !)
Note: Cult. in Průhonice (no JŠ 3082).

257. *T. (Palustria) pseudomurbeckianum* Tzvelev 1986. – Krym (Crimea), valley Baidarica, Orlinoe. 1984. N. Tzvelev et al. (PSEUDOISOTYPI!)
Note: Cult. from fruits of holotypus in Průhonice (no JŠ 4066).
258. *T. (Palustria) insolitum* Kirschner, C. E. Sonck et Štěpánek 1993. – Gr, Epirus, Ioanninon, Katara, ca 1450 m. 1985. C. E. Sonck. (ISOTYPI!)
Note: Cult. in Helsinki.
259. *T. (Palustria) insolitum* Kirschner, C. E. Sonck et Štěpánek. – Gr, Epirus, Ioanninon, Katara, ca 1450 m. 1985. C. E. Sonck. (ISOTYPI!)
Note: Cult. in Helsinki.
260. *T. (Palustria) balticum* Dahlstedt 1905. – Su, Upland, Oesterlövsta, Ledsjär. 1990. JK.
261. *T. (Palustria) balticum* Dahlstedt – Su, Upland, Oesterlövsta, Ledsjär. 1990. C. F. Lundevall et al.
262. *T. (Palustria) subalpinum* Hudziok 1965. – Cz, Podbořany, Podbořanský Rohozec, Nová Ves. 1991. JŠ.
263. *T. (Palustria) subalpinum* Hudziok 1965. – Cz, Podbořany, Podbořanský Rohozec, Nová Ves. 1991. JŠ.
264. *T. (Palustria) heleonastes* Haglund 1950. – Ge, Bavaria, München, Murnau, Staffelsee, Niklas – Achwiesen. 1988. G. Eidenschink.
Note: Cult. in Průhonice (no JŠ 3663).
265. *T. (Palustria) heleonastes* Haglund – Ge, Bavaria, München, Murnau, Staffelsee, Pfaffenrain – Krottenmoos. 1988. G. Eidenschink.
Note: Cult. in Průhonice (no JŠ 3677).
266. *T. (Palustria) heleonastes* Haglund – Ge, Bavaria, München, Murnau, Staffelsee, Pfaffenrain – Krottenmoos. 1988. G. Eidenschink.
Note: Cult. in Průhonice (no JŠ 3676).
267. *T. (Palustria) heleonastes* Haglund – Ge, Bavaria, München, Murnau, Staffelsee, Weidmoos. 1988. G. Eidenschink.
Note: Cult. in Průhonice (no JŠ 3684, JŠ 3686, JŠ 3687 et JŠ 3688).
268. *T. (Palustria) heleonastes* Haglund – Ge, Bavaria, München, Murnau, Staffelsee, Tyroler. 1988. G. Eidenschink.
Note: Cult. in Průhonice (no JŠ 3689, JŠ 3690 et JŠ 3691).
269. *T. (Palustria) heleonastes* Haglund – Ge, Bavaria, Hechenberg – Tölz. 1984. O. Angerer.
Note: Cult. in Průhonice (no JŠ 3641).
270. *T. (Palustria) uliginosum* Kirschner et Štěpánek 1992. – Cz, Nové Zámky, Tvrdšovce. 1987. JK et JŠ. (ISOTYPI!)
271. *T. (Palustria) vescum* Kirschner et Štěpánek, sp. nov. – Cz, Ružomberok, Bukovina, Velký Hukov, 650–750 m. 1987. JŠ.
272. *T. (Palustria) albanicum* van Soest 1965. – Gr, Ioannina, Katara, Metsovo, ca 1450 m. 1985. C. E. Sonck.
Note: Cult. in Průhonice (no JŠ 4064).
273. *T. (Palustria) albanicum* van Soest – Gr, Ioannina, Katara, Metsovo, ca 1250 m. 1985. C. E. Sonck.
Note: Cult. in Průhonice (no JŠ 4062).
274. *T. (Palustria) albanicum* van Soest – Gr, Ioannina, Katara, Metsovo, ca 1450 m. 1985. C. E. Sonck.
Note: Cult. in Helsinki.
275. *T. (Palustria) albanicum* van Soest – Gr, Ioannina, Katara, Metsovo, ca 1450 m. 1985. C. E. Sonck.
Note: Cult. in Průhonice (no JŠ 3078).
276. *T. (Palustria) gelricum* van Soest 1965. – Ho, Zeedijk, Putter polder. 1987. P. Oosterveld.
Note: Cult. in Průhonice (no JŠ 3740).
277. *T. (Palustria) irrigatum* Kirschner et Štěpánek 1992. – Cz, Mělník, Mělnická Vrutice. 1984. JŠ, J. Štěpánková et J. Rydlo.
278. *T. (Palustria) irrigatum* Kirschner et Štěpánek – Cz, Mělník, Mělnická Vrutice. 1984. JŠ, J. Štěpánková et J. Rydlo.
279. *T. (Palustria) domabile* Kirschner et Štěpánek 1986. – Cz, Královský Chlmec, Leles. 1984. JK. (PARATYPI !)
280. *T. (Palustria) mendax* Kirschner et Štěpánek 1985. – Cz, Stará Lubovňa, Údol. 1985. JŠ.
281. *T. (Palustria) skalinskanum* Malecka et van Soest 1972. – Cz, Dolný Kubín, Malatiná. 1985. JŠ.
282. *T. (Palustria) cognatum* Kirschner et Štěpánek 1986. – Cz, Hodonín, Očovské louky, Mrkotálky. 1985. JŠ.
283. *T. (Palustria) cognatum* Kirschner et Štěpánek – Cz, Nové Zámky, Tvrdšovce. 1987. JK et JŠ.
Note: Cult. in Průhonice (no JŠ 3612).
284. *T. (Sinensia) stenolobum* Stschégéléw 1854. – Mongolia, Ulan-Bator, the Tola river. 1987. V. Petrovskij.
Note: Cult. in Průhonice (no JK 195).

285. *T. (Dioszegia) hypanicum* Tzvelev 1986. – Ukraine, Nikolaev, Pervomajsk, Kurypčino, between Migija et Semenovka. 1989. JŠ et JK.
Note: Cult. in Průhonice (no JŠ 3487).
286. *T. (Celtica) hygrophilum* van Soest 1956. – Ho, Nature Reserve Mariapael. 1989. P. Oosterveld.
Note: Cult. in Norgervaart.
287. *T. (Erythrosperma) pseudolacistophyllum* van Soest 1956. – Cz, Bohemia centr., Beroun, Sýkořice. 1990. JŠ.
288. *T. (Erythrosperma) pseudolacistophyllum* van Soest – Cz, Bohemia centr., Beroun, Sýkořice. 1990. JŠ.
289. *T. (Erythrosperma) agaurum* van Soest 1956. – Ho, Den Haag, Meyendek, Ruigenhoek. 1991. P. Oosterveld.
290. *T. (Erythrosperma) dunense* van Soest 1956. – Ho, Den Haag, 'Alkemade laan'. 1991. A. Hagendijk, P. Oosterveld et H. Zevenbergen.
291. *T. (Erythrosperma) tortilobum* Florstroem 1914. – Ho, Zeist, 'Oude Arnhemse weg'. 1991. P. Oosterveld.
292. *T. (Erythrosperma) calocarpum* C. E. Sonck 1990. – Ga, Hautes Alpes, Orcieres, Queyret. 1987. C. E. Sonck. (PSEUDOISOTYPI !)
Note: Cult. in Průhonice (no JŠ 4130).
293. *T. (Erythrosperma) marmottae* C. E. Sonck 1990. – Ga, Basses Alpes, Jausiers – Col de Restefond. 1984. W. Lippert et H. Merxmüller.
Note: Cult. in Průhonice (no JŠ 3753).
294. *T. (Hamata) fusciflorum* H. Øllgaard 1983. – Cz, N Bohemia, Liberec. 1987. JŠ. Det. H. Øllgaard.
295. *T. (Hamata) fusciflorum* H. Øllgaard – Cz, N Bohemia, Liberec. 1987. JŠ. Det. H. Øllgaard.
296. *T. (Scariosa) aleppicum* Dahlstedt 1926. – Gr, Lónioi Níssoi, Zákynthos. 1991. A. Blab et al.
297. *T. (Ruderalia) atrox* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Praha, Průhonice. 1989. JŠ.
298. *T. (Ruderalia) atrox* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Praha, Průhonice. 1989. JŠ.
299. *T. (Ruderalia) atrox* Kirschner et Štěpánek, sp. nov. – Cz, W Bohemia, Podbořany. 1990. JŠ.
300. *T. (Ruderalia) atrox* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Praha, Průhonice, Chotobuz. 1983. JŠ et JK.
301. *T. (Ruderalia) atrox* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Praha, Průhonice, Chotobuz. 1983. JŠ et JK.
302. *T. (Ruderalia) atrox* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Praha, Průhonice, Hole. 1983. JK et JŠ.
303. *T. (Ruderalia) atrox* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Praha, Chodov. 1984. JŠ.
304. *T. (Ruderalia) copidophyllum* Dahlstedt 1910. – Cz, Šahy, Tupá. 1988. J. Battjes, JK et JŠ.
305. *T. (Ruderalia) copidophyllum* Dahlstedt – Cz, Šahy, Tupá. 1988. J. Battjes, JK et JŠ.
306. *T. (Ruderalia) copidophyllum* Dahlstedt – Cz, Štůrovo, Diva. 1987. JK et JŠ.
307. *T. (Ruderalia) copidophyllum* Dahlstedt – Cz, E Bohemia, Holice, Rokytno. 1983. JŠ.
308. *T. (Ruderalia) copidophyllum* Dahlstedt – Cz, Zlaté Moravce, Olchov. 1988. J. Battjes, JK et JŠ.
309. *T. (Ruderalia) copidophyllum* Dahlstedt – Cz, Malacky, Studienka. 1987. JK et JŠ.
310. *T. (Ruderalia) multicolorans* Hagendijk, van Soest et Zevenbergen 1972. – Ho, Spijkenisse – Breckade. 1991. A. Hagendijk.
311. *T. (Ruderalia) incisiforme* Hagendijk, van Soest et Zevenbergen 1974. – Ho, prov. Zuid Limburg, Bery – Valkenburg. 1991. P. Oosterveld. (TOPOTYPI !)
312. *T. (Ruderalia) exsertiforme* Hagendijk, van Soest et Zevenbergen 1978. – Cz, C Bohemia, Příbram, Nové Podlesí. 1990. JŠ.
313. *T. (Ruderalia) ekmanii* Dahlstedt 1911. – Cz, N Slovakia, Ružomberok, Likavka. 1987. JŠ.
314. *T. (Ruderalia) hercynicum* Kirschner et Štěpánek, sp. nov. – Cz, S Bohemia, Veselí nad Lužnicí, Ponědraž. 1991. A. Blab et JK.
315. *T. (Ruderalia) hercynicum* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Příbram, Nové Podlesí – Oseč. 1990. JŠ.
316. *T. (Ruderalia) hercynicum* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Příbram, Nové Podlesí – Oseč. 1990. JŠ.
317. *T. (Ruderalia) hercynicum* Kirschner et Štěpánek, sp. nov. – Cz, E Bohemia, Žďár nad Sázavou, Račín. 1985. JŠ.
318. *T. (Ruderalia) hercynicum* Kirschner et Štěpánek, sp. nov. – Cz, C Bohemia, Příbram, Leletice. 1985. L. Hroudá et JŠ.
319. *T. (Ruderalia) hercynicum* Kirschner et Štěpánek, sp. nov. – Cz, W Bohemia, Mariánské Lázně. 1990. JK.
320. *T. (Ruderalia) fasciatum* Dahlstedt 1906. – Cz, W Bohemia, Mariánské Lázně. 1990. JK.

321. *T. (Ruderalia) hepaticum* Railonsala 1957. – Cz, C Bohemia, Praha, Újezd u Průhonice. 1991. JK.
 322. *T. (Ruderalia) elegantius* Kirschner, H. Øllgaard et Štěpánek 1992. – Cz, S Bohemia, Veselí nad Lužnicí, Ponědraž. 1991. A. Blab et JK.

Taxonomic and nomenclatural notes

VII. *Taraxacum vindobonense* sensu lato

Taraxaca Exs., nos 83–91, 109–111, 163–170, 214

Taraxacum vindobonense van Soest is an intricate taxon, a good example of a situation where problems of classification stem from peculiarities of differentiation at the population level. It is relatively easy to draw lines between *T. vindobonense* and other taxa; it is internal variation that makes it difficult to compare this species with others. Battjes et al. (1992) showed (on the basis of material from C Europe) a very high level of genetic (isozyme) variation within *T. vindobonense*. We also were able to recognize some morphological variation in *T. vindobonense* (plants distributed under the name *T. vitabile*, ined., nos 83–91, 109, 110), but the nature of variation, attributed to kryptic or recent sexuality by Battjes, op. cit., and a great number of minor morphological variants has led us to refrain from further taxonomic splitting of the group.

Taraxacum vindobonense s. l. is a taxon that deserves further attention of biosystematists because it may serve as a model of differentiation of a presumably young apomictic group.

VIII. *Taraxacum tragopogon*, sp. nov., and its allies, a group intermediate between the sections *Palustria* and *Ruderalia*

Taraxaca Exs. nos 171–176.

In C Europe, and in the Pannonian region in particular, we have come across plants approaching the sect. *Palustria* in their ecology and morphology of outer bracts and/or achenes. Their leaves have patterns of variation and plasticity similar to those of sect. *Ruderalia*. These agamosperous species are characterized by patent to erect outer bracts (often appressed at earlier stages of development) with pale borders, by slender habit, leaves with narrow purple petioles and purple midrib, narrow interlobes, and fruits with $\pm$ long and narrower subcylindrical cones, and by habitat – moist unfertilised meadows.

In Taraxaca Exs., Fasc. V, nos 171–176, we distributed a number of plants under the name *T. tragopogon*. Later it turned out that the collections comprise two species: *T. tragopogon* s. str. (nos 172–175) and another species described, with the aid of V. Mikoláš of Košice, as *T. fascians* below (nos 171 and 176). The former taxon is common in C and W Bohemia and is known to occur in Germany and, surprisingly, Finland. The latter has been recorded and sampled from a number of localities in S and E Slovakia, N Hungary, and is also known from Moravia and Bohemia. In addition, in 1994, we have collected a closely related species in Bavaria, near Neustadt a.d. Saale. It is described as *T. rutilum* below, and isotypes will be distributed in Fasc. X of Taraxaca Exs.

The diagnostic characters of the three taxa are summarized in Table 1.

Table 1. – The diagnostic characters of *Taraxacum tragopogon*, *T. fascians* and *T. rutilum*.

Character:	<i>T. tragopogon</i>	<i>T. fascians</i>	<i>T. rutilum</i>
Colour of stigmas	green to deep green	dark green to blackish	pale yellowish–greenish or green
Achene length (incl. cone)	3.6–4.3 mm	3.5–4.2 mm	3.4–4.1 mm
Cone length	0.8–1.1 mm	0.7–1.0 mm	0.4–0.6 mm
Cone shape	± cylindrical or subcylindrical	subcylindrical or ± cylindrical	subconical or subcylindrical
Achene shape	subgradually narrowing to the cone	subabruptly to subgradually narrowing to the cone	± abruptly narrowing to the cone
Achene body width	0.9–1.0 (–1.1) mm	0.8–1.0 mm	1.0–1.3 mm
Rostrum/pappus length	9.0–10.5/6–7 mm	7–10/5.5–6.5 mm	8–10/5–6 mm
Pappus colour	dirty whitish to pale straw	dirty whitish to pale straw	white to whitish-yellowish
Colour of outer bracts	dark green to blackish green	dark to olivaceous green	pale yellowish–greenish, usually suffused pink to pale purple
Margins of outer bracts	inconspicuous, 0.2–0.3 mm, sometimes also wide paler border	± conspicuous, 0.3–0.4 mm wide	inconspicuous, 0.1–0.2 mm wide, often pinkish
Shape of distal part of lateral leaf lobes	elongated, acute	lingulate, distal part widened	acute or lingulate

***Taraxacum tragopogon* Kirschner et Štěpánek, spec. nova**

Taraxaca Exs. nos 172–175.

Descriptio (Fig. 1, 2A): Plantae mediocres. Folia suberecta, saturate usque obscure viridia, sparse araneosa, plerumque 13–18 cm longa et ad 3.5 cm lata. Lobus terminalis saepissime magnus, elongatus, ad 4–5 cm longus et 3.0–3.5 cm latus, sagittatus vel ± triangularis, subinteger vel saepe ad basin acute lobulatus vel remote dentatus. Lobi laterales plerumque numero 2–3, triangulares, ± recurvati vel subpatentes, parte distali saepissime attenuata acuta, marginibus distalibus rectis vel paulo sigmoides, ± integris, raro acute denticulatis vel dentatis, marginibus proximalibus rectis ± integris. Interlobia angusta, ad 4 mm lata, omnia vel media usque distalia longe acute dentata vel sublobulata, obscure purpureo colorata vel hepatica vel marginibus solum hepaticae coloratis. Petiolus violaceus. Scapus folia superans, inaequale araneosus. Involucrum sat obscure viride, squamis exterioribus numero 14–17, arcuatis, erecto-patentibus vel subadpressis, lanceolatis, plerumque 8–10 mm longis et 3.5–3.8 mm latis, obscure viridibus vel atro-viridibus, saepe subglaucescentibus, marginibus distinctis albomembranaceis angustis (0.2–0.3 mm), saepe etiam marginibus inconspicuis viridibus latis (ad 1 mm). Calathium luteum, ad 3–3.5 cm in diametro, ligulae marginales planae, extus stria cano-viridi notatae, stigmata ± viridia vel obscure viridia, antherae polliniferae, granulis pollinum diametro imparibus. Achenium fusco-stramineum vel substramineum, 3.6–4.3 mm longum, 0.9–1.0(–1.1) mm latum, superne breviter subsparsa spinulosum, in pyramidem tenuam ± cylindricam vel



Fig. 1. – *Taraxacum tragopogon* Kirschner et Štěpánek spec. nova; bar = 5 cm.

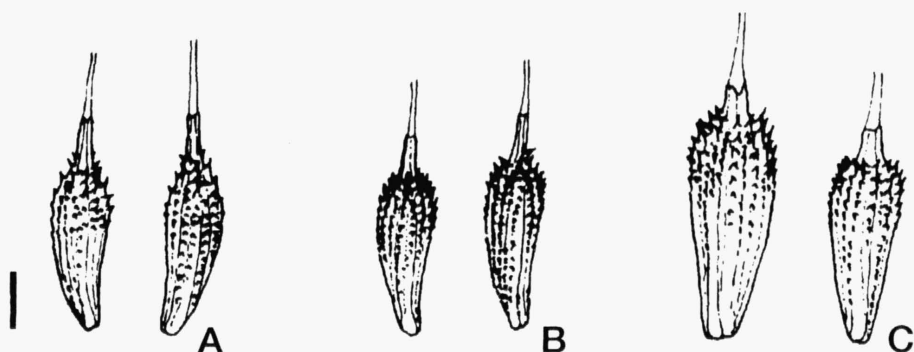


Fig. 2. – Achenes of *Taraxacum tragopogon* (A), *T. fascians* (B), and *T. rutilum* (C); bar = 1 mm.

subcylindricam 0.8–1.1 mm longam subsensim abiens, rostrum 9–10.5 mm longum, pappus 6–7 mm longus sordide albidus vel albo-substramineus. Species agamosperma.

Holotypus: Bohemia occidentalis, opp. Mariánské Lázně, pagus Chodová Planá: in prato humido in periphéria bor.-occid. pagi. Planta 15. 5. 1985 a J. Štěpánek lecta, no. det. 6966. In herb. PRA asservatur.

Isotypi: *Taraxaca* Exsiccata, Fasc. V, no. 173.

Selected herbarium specimens:

Finland, Satakunta, Tammerfors, 'vid trikafabriken'. B. Florström 11.6. 1911 sub nomine *T. copidophyllum*, herb. H 106246, 106243, 106249 (no. det. 5498). – ibidem, B. Florström 17.5. 1911 H 106244, 106252 (no. det. 5499). – Tammerfors, 'S om Pyynikki'. G. Marklund 22.6. 1942 H 158564 (no. det. 5495).

Germany, 3032/3 NSG Schreyahn-Salzwiese. Kallen 1.5. 1992 herb. Kallen (no. det. 11142).

Czech republic – Bohemia occid., Kladruhy u Stříbra. M. Štech 9.5. 1992 herb. M. Štech (no. det. 10056). – Opp. Cheb, in periph. occid. oppidi. JŠ 14.5. 1985 (no. det. 10372). Opp. Cheb, prope stat. ferroviae in vico Hájek u Soosu. JŠ 15.5. 1985 (no. det. 10368). – Bohemia austr., opp. Budějovice, pagus Plástovice, ad piscinam Volešek. Chán et Žíla 7.5. 1992 herb. Chán (no. det. 10346). – pagus Vlhavy, ad piscinam Vlhavský rybník. JK 23.5. 1987 (no. det. 6984, *Tarax. Exs.* no. 175). – opp. Strakonice, pagus Černíkov. V. Chán 4.5. 1992 herb. Chán (no. det. 10340). – opp. Třeboň, Ponědraž, ad piscinam Ponědražský rybník. Žíla 15.5. 1993 herb. Žíla (no. det. 10575). – opp. Blatná, pagus Hněvkov. Chán et Žíla 10. 5. 1992 herb. Chán (no. det. 10389). – pagus Pole. Žíla, Chán et Štech 30.4. 1993 herb. Žíla (no. det. 10523). – opp. Písek, ad solitudinem U Žákovského ad vicum Obora. V. Chán et al. 4.5. 1989 (no. det. 10369). – montes Šumava, pagus Kvilda. B. Trávníček 27.5. 1995 herb. Trávníček (no. det. 12364). – Bohemia centralis, opp. Kladno, pagus Třtice, ca 1 km situ merid. a pago. JŠ 16.5. 1985 (no. det. 6967, *Tarax. Exs.* no. 172). – opp. Kladno, pagus Stochov, inter pagum et vicum Vašírov. JŠ et JK 14.5. 1985 et 12.5. 1987 (no. det. 6965, *Taraxaca Exs.* no. 174). – opp. Chlumec n. Cidl., pagus Zbraň. Battjes et JK 9.5. 1988 (no. det. 11291).

Taraxacum fascians Kirschner, Mikoláš et Štěpánek, spec. nova

Taraxaca Exs. nos 171, 176.

Diagnosis (Fig. 2B, 3A): *Taraxaco tragopogoni* valde affinis sed praesertim forma foliorum (lobi laterales marginibus distalibus distincte sigmoideis, ad basin conspicue convexis, apicibus elongatis late linearibus, interlobiis distalibus integris vel dentatis, lobo terminali saepe ± tripartito), bracteis exterioribus subadpressis vel erecto-patentibus, postea erecto-patentibus vel raro arcuatis, ± conspicue marginatis, margine albo-membranaceo plerumque 0.3–0.4 mm lato, stigmatibus atro-viridibus notabile. Chromosomatum numerus triploideus, $2n=24$.

Holotypus: Slovacia meridionalis, opp. Komárno, pagus Búč: in pratis uliginosis secundum viam publicam inter pagos Búč et Moča, ca 2–3 km situ mer.-occid. a pago Búč. Alt. ca 120 m s.m. Die 3. 5. 1988 leg. J. Battjes, J. Kirschner et J. Štěpánek. In herbario PRA, sub no. det. 11283 asservatur.

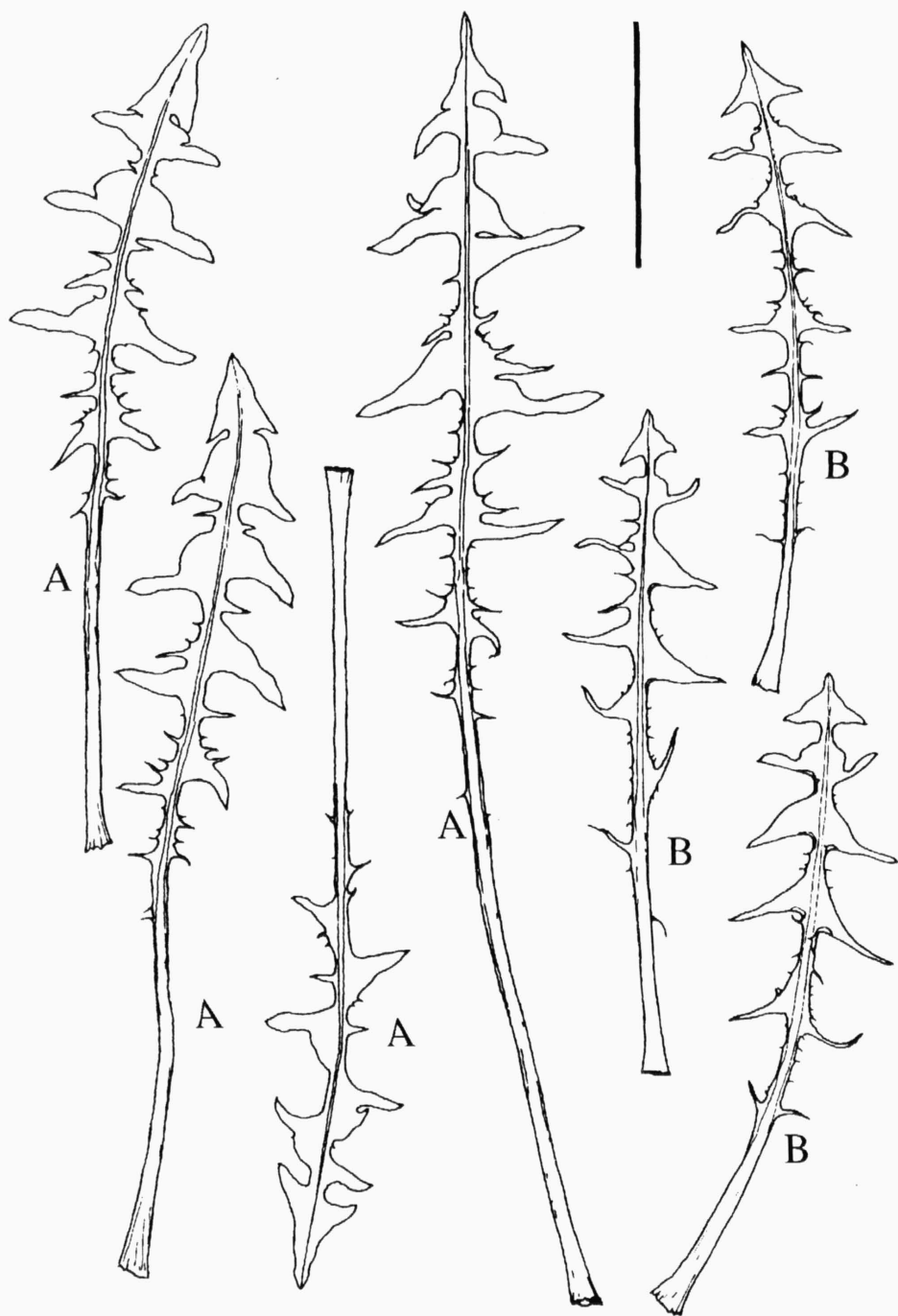


Fig. 3. – Leaves of *Taraxacum fascinans* Kirschner, Mikoláš et Štěpánek (A), and *T. rutilum* Kirschner et Štěpánek (B); bar = 5 cm.

Selected herbarium specimens:

Bohemia, opp. Beroun, in pratis ad fl. Berounka, contra pagum Žloukovice. JŠ 17.5.1987 (no. det. 6963, *Taraxaca Exsiccata*, no. 176). – Opp. Beroun, pagus Sykořice, in prato humido ad ripam sinistram fl. Berounka, sub loco Na Selci. JŠ 20.5.1985 (no. det. 11251). – Bohemia, opp. Kutná Hora, in agris ad pagum Pivňisko. JK 19.6. 1986 (no. det. 6968, *Taraxaca Exs.*, no. 171). – Nymburk, Libický luh, pratum Bělina dictum Rydlo 8.5.1992 ROZ (no. det. 9826). – Opp. Chlumec n. Cidl., pagus Žiželice, locis uliginosis ad piscinam Žehuňský rybník, ca 1–2 km situ occid. a vico Zbraň. JŠ 13.5. 1985 (no. det. 11288). – Rožďalovice, ad ripam bor.-orient. piscinae Zrcadlo, ca 400 m a pago Mlýnec. JŠ 10. 5. 1984 (no. det. 11214). – Opp. Nový Bydžov, in vico Opatov prope pagum Kobylce. JK 8.5. 1984 (no. det. 11212, 11213). – Opp. Hradec Králové, pagus Smidary, ad piscinam Medfřč. J. Kučera 22.4. 1990 herb. Kučera (no. det. 7687). – Opp. Jičín, pagus Vysoké Veselí. J. Kučera 22.4. 1990 herb. Kučera (no. det. 7682). – Bohemia borealis, opp. Frýdlant, in pascuis ad collem Supý vrch (338 m). JŠ 19.5. 1987 (no. det. 11217).

Moravia merid., opp. Hodonín, in pratis udis prope coemeterium ad marg. bor.-orient. oppidi. Hulst, den Nijs, JK et JŠ 11.5. 1985 (no. det. 11245). – Opp. Chropyně, ad viam ferream ca 0.7 km a statione, ad opp. Kojetín versus. B. Trávníček 29.4. 1989 herb. Trávníček (no. det. 11289). – Opp. Kojetín, pratis ad silvam Jestřáb, ca 2.5 km a statione ferroviariae. B. Trávníček 29.4. 1989 herb. Trávníček (no. det. 11290).

Slovakia merid., opp. Štúrovo, graminosis inter vallum et rivum Mužlianský potok situ mer.-occid. a pago Obid. JŠ 1.5. 1984 (no. det. 11286, chrom. num. 2n=24 det. JŠ sub no. 216, 219 et 223/86). – Opp. Štúrovo, ca 1.8 km situ bor.-bor.-occid. ab ecclesia in pago Kamenný Most nad Hronom. JŠ 2.5. 1984 (no. det. 11228, chrom. num. 2n=24 det. JŠ sub no. 143, 144/86). – Opp. Komárno, pagus Martovec, locis uliginosis trans vallum fl. Žitava, 0.5–1.5 km situ mer.-occ. a pago Velký Vek. JŠ 1. 5. 1985 (no. det. 11287). – Opp. Šahy, in pratis sec. fl. Ipel, ca 2–3 km situ orient. ab oppido. Battjes, JK et JŠ 4.5. 1988 (no. det. 11227). – Opp. Spišské Podhradie, ad pedem collis Sívá Brada. JŠ 15.5. 1984 (no. det. 11243, chrom. num. 2n=24 det. JŠ sub no 207/86). – Slovakia orientalis, Velký Horeš, ca 1.5 km situ occid. a stat. ferroviariae. V. Mikoláš 6.5. 1992 KO (chrom. num. 2n=24 det. L. Mihoková). – pagus Ptruška, 0.5–1.0 km situ merid. usque merid.-occid. a pago. V. Mikoláš 7.5. 1991 KO (chrom. num. 2n=24 det. L. Mihoková).

Hungaria orient., opp. Szerencs, pagus Mezőzombor, in pratis udis ca 0.5 km situ bor.-occid. a statione ferroviariae ad pagum. JK 2.5. 1985 (no. det. 11238).

***Taraxacum rutilum* Kirschner et Štěpánek, spec. nova**

Diagnosis (Fig. 2C, 3B): Species *T. tragopogoni* et *T. fascianti* proxima sed bracteis exterioribus arcuatis, pallide viridibus, indistincte marginatis, saepe roseae suffusis, acheniis plus crassioribus (1.0–1.3 mm latis), pyramide subconica brevi 0.4–0.6 mm longa, stigmatibus pallide viridibus.

Holotypus: Germania, Bavaria, Unterfranken, Neustadt a.d. Saale, pagus Heustreu: pratis alluvialibus rivi Streu situ australi a pago. Die 1. 5. 1994 leg. J. Kirschner, L. Meierott et J. Štěpánek; in herbario PRA asservatur, no. det. 11285.

Isotypi: PRA (no. det. 10708 etc.)

Pseudoisotypi: PRA (no. det. 10707 etc.).

Specimens examined: Bayern, Bad Neustadt a.d. Saale, in the SSW vicinity of the town. 1.V. 1994 Kirschner, Meierott et Štěpánek (no. det. 10705). – Bayern, Schweinfurth, Hofheim, near Ostheim. 2.V. 1994 Kirschner, Meierott et Štěpánek (no. det. 10706). – Bayern, 5831/311 Memmelsdorf. 27.4. 1994 O. Elsner, herb. Elsner (no. det. 10653).

J. Kirschner, V. Mikoláš and J. Štěpánek

IX. *Taraxacum quadrangulum*, an earlier name for *T. flagelliferum* Sahlin

Taraxaca Exs. nos. 227–229

Taraxacum quadrangulum Railonsala, Arch. Soc. Zool. Bot. Vanamo 11: 163 (1957) represents an older name for the species distributed under the name *T. flagelliferum* Sahlin in *Taraxaca Exsiccata*. In Sahlin's herbarium, plants belonging to this species collected by Sahlin are determined both as *T. quadrangulum* and *T. flagelliferum*.

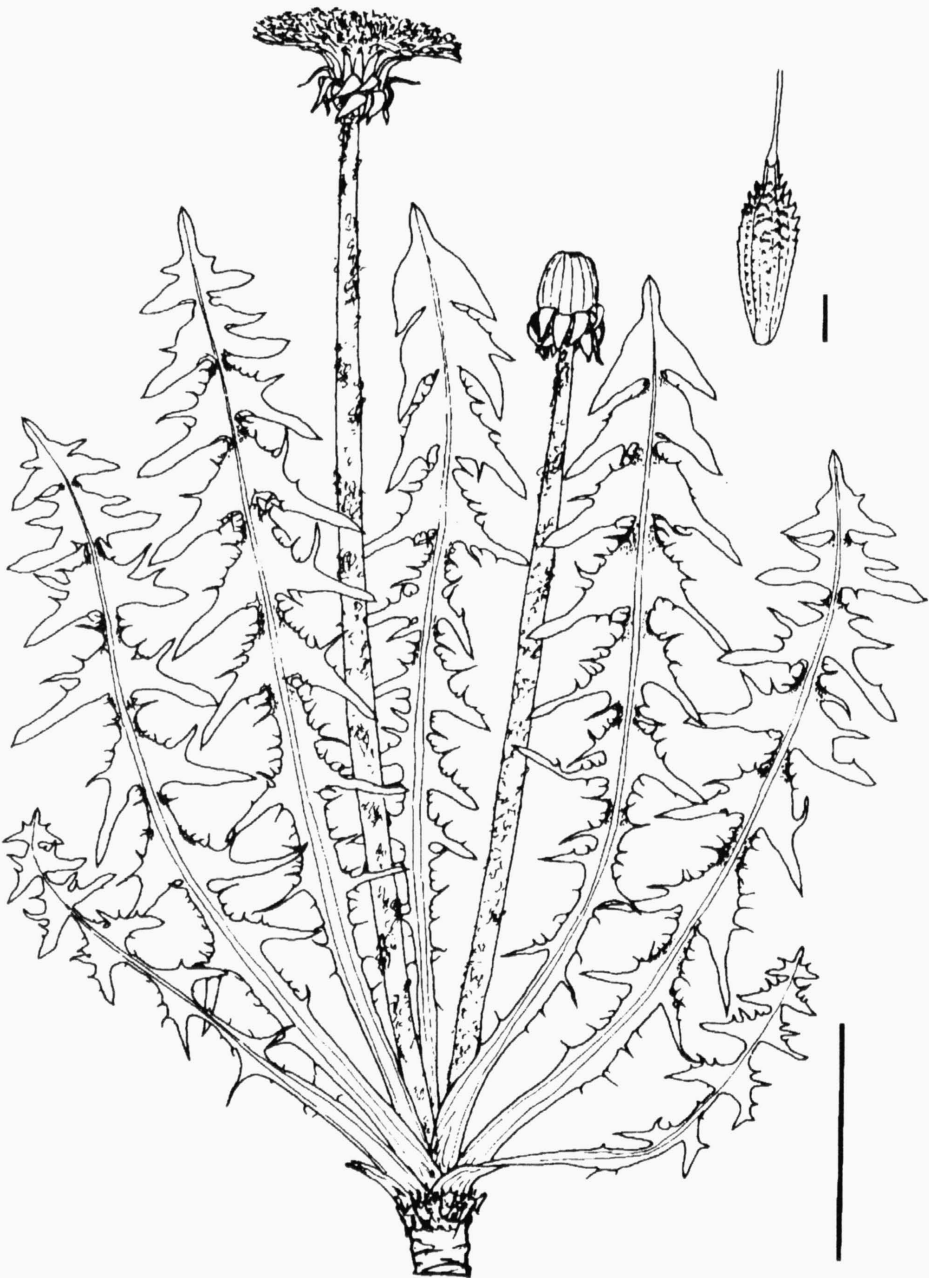


Fig. 4. – *Taraxacum sertatum* Kirschner, H. Øllgaard et Štěpánek spec. nova; habitus, bar = 5 cm; achene, bar = 1 mm.

X. Notes on *Taraxacum pallidipes*

In *Taraxaca Exsiccata*, Fasc. IV, nos 129–134, we have issued plants under the name *T. pallidipes* Markl. H. Øllgaard immediately informed us that our identification was not correct. After an extensive study, we have arrived at the conclusion that our plants belong to a widespread, hitherto overlooked C European taxon of the section *Ruderalia*. The real *T. pallidipes* has been distributed as *Taraxaca* Exs. no 238. The new taxon is described below with the substantial aid of H. Øllgaard.

Taraxacum sertatum Kirschner, H. Øllgaard et Štěpánek, spec. nova

Taraxaca Exs. nos 129–134.

Descriptio (Fig. 4): Plantae mediocres vel subrobustae, caespitem magnum saepe formantes. Folia patensia usque erecta, laete (sublutescente) viridia, immaculata, subglabra vel sparse araneosa, 15–30 cm longa et 3–5 cm lata, profunde lobata. Lobus terminalis foliorum exteriorum et intermediorum medius vel parvus, foliorum interiorum longior et latior, $\pm$ triangularis, integer vel interdum (in margine distali) dente vel lobulo instructus, margine distali sinuata, acutus et saepissime apice elongate procerus. Lobi laterales numero (4–) 5–8 utrobique, 1.5–2 (–3) cm longi, plerumque superne approximati, frequentissime anguste triangulari usque elongati, patentissimi vel divaricati, acuti, marginibus distalibus rectis, curvatis (convexis) vel sigmoideis (ad basin rectis vel convexis, sub apicem concavis), grosse dentatis (solito dente uno conspicue majore et longiore forma lobuli instructis) et passim fissis, marginibus proximalibus rectis usque $\pm$ laeviter concavis, integerrimis vel ad basin dentibus exiguis instructis. Interlobia pro more minus quam 1 cm longa et subalata, in parte superiore foliorum intermediorum et interiorum acuta, irregulariter dentata-lobulata, subplicata, interdum dilutissime violaceo-brunnea, marginibus angustissime hepaticae coloratis. Petiolus subalatus, pallidus (in folia interiora eventualiter rubescens); nervus medianus pallide viridis vel dilute melleus. Scapus plerumque foliorum longior, 20–35 cm altus, inaequale araneosus (indumentum in obturamenta depauperata). Involucrum sat laete (sublutescente) viride, non vel leve pruinose, squamis exterioribus numero (13–) 15–19 (–22), arcuatis (reclinatis), $\pm$ lanceolatis, 3.5–5 mm latis, 13–15 mm longis, ecorniculatis, supra pallide canescenti-viridibus, marginibus albomembraneis, 0.1–0.2 mm latis. Calathium planum, 3.5–4.5 cm in diametro, saturate luteum. Ligulae marginales planae, extus stria cano-viridi notatae, ligulae interiores dentibus apicalibus luteis. Stigmata luteo-viridia et extus pilis obscuris ornata; antherae polliniferae, granulis pollinum diametro imparibus. Achenium fusco-stramineum, superne breviter dense spinulosum, ceterum tuberculatum vel leve, (3.4–) 3.6–3.7 mm longum (pyramide inclusa), 1.0–1.1 mm latum, in pyramidem subcylindricam, 0.4–0.5 mm longam, abrupte abiens. Rostrum 13–14 mm longum; pappus albus, ca 7 mm longus.

Species agamosperma, verisimiliter polyploidea. $2n = ?$

Holotypus: Bohemia centralis, opp. Kolín, pagus Hryzely; in caespitibus in centro pagi. Alt. ca 350 m s.m. Planta 13.5.1987 a J. Kirschner lecta. In herbario PRA sub no. det. 11183 asservatur.

Taraxacum sertatum shows a certain resemblance to *T. pallidipes* Markl., particularly in size and habit of outer bracts, and the pallid petioles. However, there are leaf shape features clearly separating the two taxa. *T. sertatum* has a larger number of far more dentate lateral lobes – both upper and lower edges usually bear more or less coarse teeth – and its lobation is far more dense, in the upper leaf half of the inner leaves very crowded, with narrow, acute-angled interlobes. The size of the terminal lobe in inner leaves differs: conspicuously larger in *T. pallidipes* than in *T. sertatum*. Another separating feature is the usually well-defined, protracted leaf apex of *T. sertatum*, which rarely (in strongly dissected modifications) is produced in *T. pallidipes*. The latter has more intensively pale pruinose surface of outer bracts.

Taraxacum sertatum has a disjunct area of distribution, so far, being found abundantly in many places in the Czech Republic, rarely in Germany, at two Danish localities in

southernmost Jutland, and in Sweden, Lidingö (near Stockholm). It is expected that the gaps will be filled in, at least in S and E Germany, when a closer investigation of the dandelion flora of that area is carried out.

Selected herbarium specimens:

Germany: In the report from International Taraxacological Meeting held at Haiger, Hessen, Germany (Jung 1995), the species is given from seven localities, six from Hessen, one from Rheinland-Pfalz.

Sweden: Uppland, Lidingö, Södergarn. C. F. Lundevall 24.5.1990 herb. Lundevall 13445. – Ibidem, H. Øllgaard 24.5.1990 herb. H. Øllgaard 90–316.

Denmark: TBU-distr. 50, Badsbol Ballum. H. Øllgaard 3.5. 1992 herb. H. Øllgaard 92–137, 138. – TBU-distr. 53, Sønderborg, Udsikten, Sygeplejeskolen. H. Øllgaard 2.5. 1992 herb. H. Øllgaard.

Czech Republic: Bohemia septentr., opp. Frýdlant: graminosis in oppidi peripheria merid.-orient., ca 340 m. JŠ 19.V.1987 (no det. 10655). – Bohemia septentr., opp. Frýdlant: in pascuis situ merid.-orient. ab oppido, ad collem Supý vrch (388 m), ca 340–370 m. JŠ 19.V.1987 (no det. 10696). – Bohemia septentr., opp. Frýdlant: in prato sub statione ferroviariae ad pagum Raspenava, ca 350 m. JŠ 19.V.1987 (no det. 10684). – Bohemia septentr., opp. Frýdlant: graminosis ante stationem ferroviariae in pago Hejnice, ca 370 m. JŠ 19.V.1987 (no det. 10693). – Bohemia septentr., montes Jizerské hory, opp. Frýdlant: in pascuis inter pagos Hejnice et Bílý Potok, situ merid. a flum. Smědá, 380–420 m. JŠ 19.V.1987 (no det. 10695). – Bohemia septentr., opp. Liberec: in graminosis haud procul a statione ferroviariae, ca 360 m. JŠ 19.V.1987 (no det. 10694). – Bohemia borealis, regio collina České středohoří, opp. Lovosice: in valle rivi ca 1 km situ occid. a pago Třebenice. JK 29. IV. 1989 (no det. 10692). – Bohemia borealis, opp. Mnichovo Hradiště, pagus Veselá: in pratis udis in adjac. septentr. pagi. JK et JŠ 10.V.1988 (no det. 10662). – Bohemia borealis, opp. Mnichovo Hradiště, pagus Příšovice: in pratis secundum flum. Jizera, non procul a ponte trans fl. ad pagum Příšovice. JK et JŠ 10.V.1988 (no det. 10661). – Bohemia boreal., opp. Mladá Boleslav: in prato in decl. ± boreal. collis Chlum supra pagum Jemníky, ca 270 m. JŠ 21.V.1988 (no det. 10685). – Bohemia bor.-orient., distr. Trutnov: caespitibus in pago Malé Svatoňovice. JK 14.V.1985 (no det. 10666). – Bohemia occid., opp. Rakovník, pagus Hofesedly: graminosis in pago Hofesedly, 13°36'E 50°10'N, ca 385 m. JŠ 12.V.1991 (no det. 10702).

Bohemia centr., regio sylvatica Křivoklátsko, opp. Rakovník: locis semiruderalibus in pago Křivoklát. JK et JŠ 12.V.1987 (no det. 10669). – Bohemia centr., regio sylvatica Křivoklátsko, opp. Beroun: in pratis alluvionibus flum. Berounka, contra pagum Žloutkovice. JŠ 17.V.1987 (no det. 10658, Taraxaca Exs. no 132). – Bohemia centr., opp. Příbram, pagus Staré Podlesí: in pratis ad pagum. JŠ 10.V.1990 (no det. 10689). – Bohemia centr., opp. Příbram: ad viam publicam in oppidi peripheria bor.-occid. JŠ 10.V.1990 (no det. 10688). – Bohemia centr., regio carstica Český kras, opp. Beroun, vicus Sv. Jan pod Skálou: in caespitibus in vico. JŠ et J. Štěpánková 5.V.1990 (no det. 10683). – Bohemia centr., opp. Dobříš, pagus Voznice: in pratis in pago, ca 380 m. JŠ 14.V.1987 (no det. 10690). – Bohemia centr., opp. Dobříš, pagus Nový Knín: in caespitibus in pago, ca 320 m. JŠ 14.V.1989 (no det. 10667). – Bohemia centr., urbs Praha, pagus Petrovice: in prato ad ripam dextram rivi Pitkovický potok, ca 1.3 km situ merid.-orient. ab ecclesia in pago Petrovice, ca 260 m. JŠ 5.V.1984 (no det. 10698). – Bohemia centr., urbs Praha, pagus Průhonice: in prato ante castrum, ca 320 m. JŠ 24. IV. 1989 (no det. 10656), JŠ IV.1990 (no det. 10679). – Bohemia centr., urbs Praha, pagus Průhonice: in caespitibus in pagi parte "Jezírka" dicta, ca 300 m. JŠ 7.V.1986 (no det. 10654). – Bohemia centr., urbs Praha, pagus Průhonice: in prato ad hortum arboreum. JŠ 14.V.1987 (no det. 10682, Taraxaca Exs. no 133). – Bohemia centralis, opp. Benešov: in pascuo ad viam publicam ca 1 km situ bor.-occid. a pago Nová Ves, ca 480 m. JK 19.V.1987 (no det. 10665, Taraxaca Exs. no 130). – Bohemia centr., opp. Kolín, pagus Hřezly: in caespitibus in centro pagi, ca 350 m. JK 13.V.1987 (no det. 10659, Taraxaca Exs. no 134).

Bohemia orientalis, opp. Ledeč nad Sázavou: in prato ad viam Ledeč n. S. – Vrbka, in parte cacuminali collis Ostojevka (540 m), ca 3 km situ boreal. ab opp. Ledeč n. S., ca 510 m. JŠ 21.V.1987 (no det. 10657, Taraxaca Exs. no 131). – Bohemia orient., opp. Kutná Hora, pagus Zbraslavice: in prato sub vallo piscinae in pago Bohdaneč, ca 440 m. JŠ 21.V.1987 (no det. 10700). – Bohemia orient., opp. Kutná Hora, pagus Zbraslavice: in prato sub statione ferroviariae in peripheria boreali pagi Zbraslavice, ca 450 m. JŠ 21.V.1987 (no det. 10699). – Bohemia centr., opp. Poděbrady, pagus Libice nad Cidlinou: in prato udo ad viam publicam situ orient. a pago. van der Hulst, den Nijs, JK et JŠ 8.V.1985 (no det. 10668). – Libický luh, Nêmecká louka. J. Rydlo 8.V.1992 ROZ (no det. 10134). – Bohemia orientalis, opp. Chlumec nad Cidlinou: in pratis udis iuxta viam publicam inter pagos Loukonosy et Hradištko. H. Øllgaard, JŠ et JK 13.V.1983 (no det. 10664). – Bohemia orient., opp. Holic, pagus Komárov: graminosis ad ripam rivi Lodrantka in pago. van der Hulst, den Nijs, JK et JŠ 9.V.1985 (no det. 10686). – Bohemia orient., opp. Chrudim: prope viam silvicam haud procul a vico Pila u Libáně, situ sept.-sept.-orient. ab opp. Nasavrky. H. Øllgaard, JŠ et JK

13.V.1983 (no det. 10678). – Bohemia orient., inter opp. Havlíčkův Brod et Hlinsko: ad viam publicam ca 1 km situ merid. a pago Nové Ransko, ca 550 m. JŠ 26.V.1987 (no det. 10691). – Poličko, Modřec, u silnice asi 0.8 km SZ obce, 590 m. B. Trávníček 18.V.1991 herb. Trávníček (no det. 10433). – Poličko, Polička, trávník v obci u křižovatky asi 0.6 km VJV od nádraží, 550 m. B. Trávníček 18.V.1991 herb. Trávníček (no det. 10434). – Sušice – sídliště pod Svatoborem. J. Vaněček 16.V.1992 herb. Vaněček (no det. 10410). – Strakonické vápence, Rovná: v obci. V. Chán, V. Žíla et JK 22.V.1987 (no det. 10353). – Bohemia australis, opp. Strakonice: in pratis et arvis secundum rivum inter pagos Radomyšl et Domanice. JK 22.V.1987 (no det. 10663). – Bohemia australis, opp. Veselí nad Lužnicí: in caespitibus in oppido. JK 12.V.1984 (no det. 10660). – montes Šumava, opp. Vimperk, pagus Borová Lada. B. Trávníček 28.5. 1995 herb. Trávníček (no. det. 10864).

Moravia occid., opp. Žďár nad Sázavou: graminosis in area oppidi partis borealis Tálský Mlýn dictae. JŠ 27.V.1985 (no det. 10687). – Moravia occid., opp. Žďár nad Sázavou, pagus Počitky: in prato ca 1 km situ or.-mer.-or. a pago, ca 640 m. JŠ 30.V.1984 (no det. 10697). – Žďárské vrchy, Křižová, u polní cesty asi 0.6 km J obce, 570 m. B. Trávníček 19.V.1991 herb. Trávníček (no det. 10432). – Dražanská plošina: Žďárná, vlhká louka vlevo od silnice do Suchého asi 0.7 km S obce, ca 650 m. B. Trávníček 15.V.1990 herb. Trávníček, PRA (no det. 9088). – Dražanská plošina, Žďárná, vlhká louka při (S-)V okraji obce, 660 m. B. Trávníček 4.VI.1991 herb. Trávníček (no det. 10435). – Dražanská plošina, Nectavské údolí, loučky na břehu Nectavy asi 1.5 km JJV obce Březinky, 380 m. B. Trávníček 20.V.1991 herb. Trávníček (no det. 10439). – Hornomoravský úval, Olomouc, vlhké louky (SPR Plané loučky) asi 1 km S (-SSV) od želez. stanice Olomouc-Řepčín, 210 m. B. Trávníček 13.V.1991 herb. Trávníček (no det. 10438). – Jesenické podhůří, Hrubá Voda, u silničky v údolí Bystřice asi 0.6 km S od nádraží, 390 m. B. Trávníček 23.V.1991 herb. Trávníček (no det. 10436). – Jesenické podhůří, Jívová, u silničky v údolí Bystřice asi 0.7 km JZ od želez. stanice, 430 m. B. Trávníček 23.V.1991 herb. Trávníček (no det. 10437). – Urbs Ostrava, Šenov. B. Trávníček 9.5. 1992 herb. Trávníček (no. det. 12471). – Montes Radhošské Beskydy, Prostřední Bečva, 1 km bor.-orient. a monte Hákovský vrch. B. Trávníček 16.5. 1993 herb. Trávníček (no. det. 12473). – Montes Hrubý Jeseník, pagus Vernířovice, ad vicum Sedm Dvorů. B. Trávníček 21.5. 1994 herb. Trávníček (no. det. 10855). – Opp. Vsetín, pagus Ratiboř, ad vicum Nivka. B. Trávníček 16.5. 1995 herb. Trávníček (no. det. 12478). – Montes Bílé Karpaty, pagus Strání, 2 km situ merid.-occid. a vico Květná. B. Trávníček 10. 5. 1994 herb. Trávníček (no. det. 10853).

J. Kirschner, H. Øllgaard and J. Štěpánek

XI. *Taraxacum johannis-jansenii* versus *T. hygrophilum*

T. johannis-jansenii van Soest: *Taraxaca* Exs. no. 251

T. hygrophilum van Soest: *Taraxaca* Exs. no. 286

The plants known under the above two names are conspecific. In moist unfertilised and somewhat acidic meadows, *T. hygrophilum* keeps its juvenile appearance (which is in agreement with its original description). On better drained, more nutritious soils, the morphology of the plants approaches that given originally for *T. johannis-jansenii*. We accept *T. hygrophilum* as the correct name; the name *T. johannis-jansenii* is considered as a taxonomic synonym.

P. Oosterveld

XII. *Taraxacum hercynicum* Kirschner et Štěpánek, spec. nova

Taraxaca Exs. nos 314–319.

Descriptio (cf. etiam Fig. 5): Plantae subgraciles usque subrobustae. Folia pallide viridia, immaculata, subglabra usque araneosa, (7–) 10–25 (–30) cm longa et 1–3 (–4) cm lata, semper profunde lobata. Lobus terminalis parvus vel mediocriter magnus, triangularis usque anguste triangularis vel lingulatus, ± acutus, integerrimus, 1–2 (–3) cm longus, 0.8–1.5 (–2.0) cm latus, ad basin truncatus usque sagittatus. Lobi laterales numero (4–) 5–7 (–9) utrobique, remoti vel interdum praesertim apicem versus leviter approximati, fere oppositi, anguste triangulares vel triangulares, divaricati usque reflexi, recti vel sub apicem leviter recurvi,

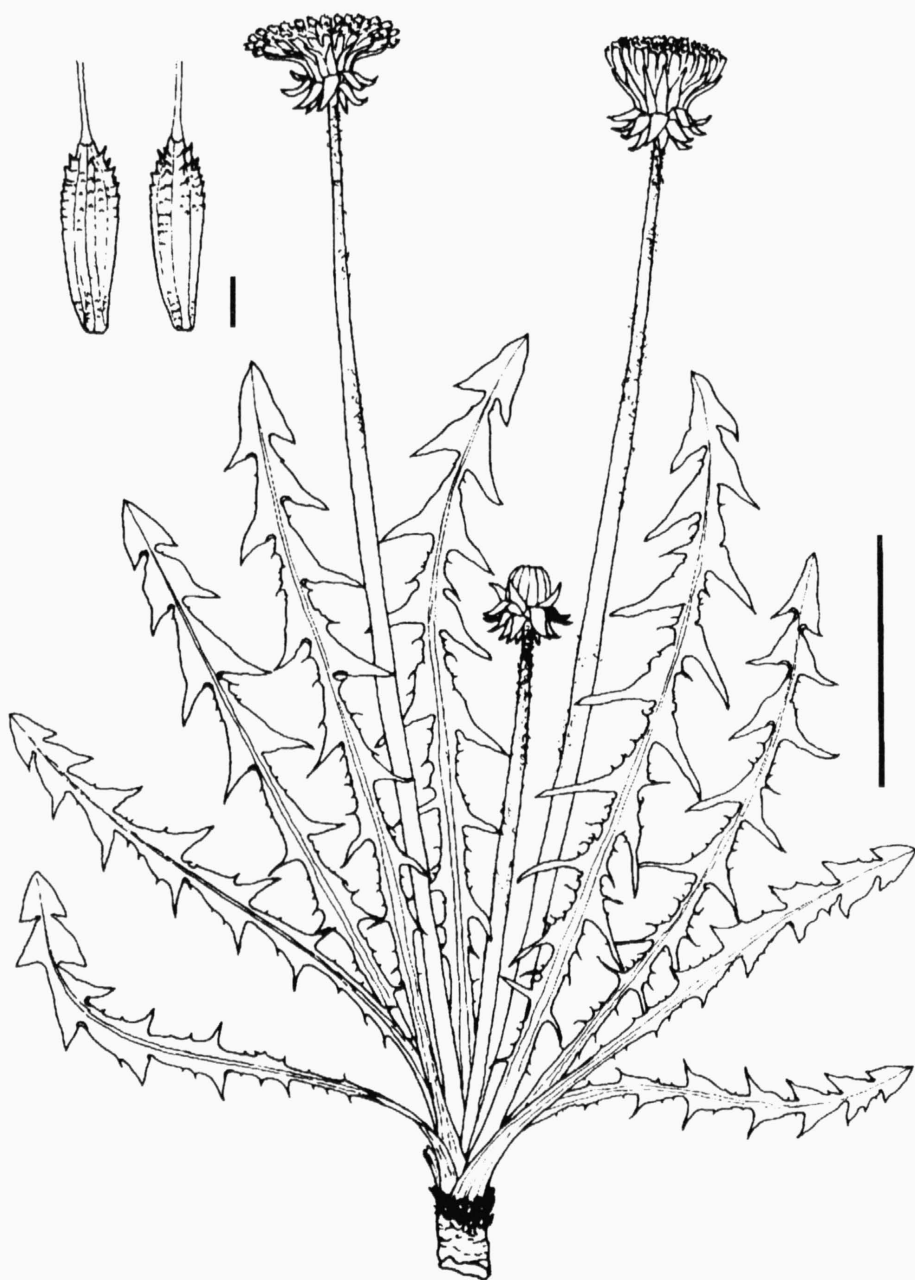


Fig. 5. – *Taraxacum hercynicum* Kirschner et Štěpánek spec. nova; habitus, bar = 5 cm; achene, bar = 1 mm.

plerumque integerrimi, tamen in marginibus distalibus loborum inferiorum vel in speciminibus luci valde expositis sparse dentatis, 0.5–1.5 (–2.0) cm longi. Interlobia 0.5–1.7 (–2.5) cm longa, saepissime 1.5–4.0 mm lata, interdum integra vel remote denticulata usque grosse dentata, fere pallide hepaticae colorata. Petiolus angustissime alatus, dilute viridis; nervus medianus item dilute viridis. Scapus saepissime 10–20 cm altus, viridis vel pallide aeneus, inaequabile araneosus. Involucrum basi 6–9 mm in diametro, $\pm$ rotundatum, laete viride, squamis exterioribus numero 18–21, arcuato patentibus, anguste ovatis, 8–10 mm longis et 2–4 mm latis, pallide viridibus, ecalosis, marginibus albis usque albomembranaceis, 0.1–0.2 mm latis. Calathium planum vel leviter convexum, 3.0–3.5 cm in diametro, dilute luteum. Ligulae marginales planae, extus stria cano-viridi notatae, dentibus apicalibus pallide croceis. Stigmata subobscura (lutea et extus pilis nigris ornata); antherae vacuae. Achenium olivaceo-griseum, superne sat dense spinulosum, ceterum tuberculatum vel laeve, 3.5–3.8 mm longa (pyramide inclusa), 1.0–1.1 mm lata, in pyramidem latam et curtam (0.2–0.4 [–0.5] mm) paulatim abiens. Rostrum 8–12 mm longum, pappus albus, 6–7 mm longus.

Species agamosperma, verisim. polyploidea, e sectionis *Ruderalia* K., H. Ø. et Š. parte marginali.

Holotypus: Czech Republic, “Bohemia orient., opp. Žďár nad Sázavou, pagus Račín: secundum viam publicam in pagum Polnička, ca 0.3–1.0 km situ orient. a pago Račín.” Leg. J. Štěpánek 27.V.1985 (no det. 11182), in herb. PRA asservabitur.

Isotypi: Herb. auct. (no det. 10637) et plantae in *Taraxaca* Exs. no 317 distributae, e.g. in PRA, M, BRNU, WU.

Taraxacum hercynicum is an extremely distinct species. It is one of the latest taxa to blossom in spring, specimens in full flower can be found at the end of May and beginning of June in C Europe. Pale green leaves and petioles, numerous narrowly triangular lateral lobes, almost pure yellow stigmas, and an absence of pollen should be mentioned as diagnostic characters. From *T. walo-kochii* van Soest, a superficially similar taxon from the Swiss Alps, it differs in having narrow, pale green outer bracts.

Selected herbarium specimens:

Germany: Rockenstein, n. Oberwiesenbrunn, Weide auf Basalt. L. Meierott 14.V.1993 herb. Meierott (no det. 10626).

Bohemia occid., Luby: na okraji lesa při silnici ke státní hranici nad Horními Luby, 580–600 m. J. Hašková, JK et F. Krahulec 17.VI.1987 (no det. 10629). – Bohemia occid., montes Krušné hory, opp. Nejdek, pagus Přebuz: in area officinae vetustae (metallum) ad viam Přebuz-Jelení, ca 700 m situ mer.-mer.-occid. a cota 939 (Plochá hora), ca 920 m. JŠ 29.VIII.1990 (no det. 10635). – Bohemia occid., montes Krušné hory, opp. Jáchymov, vicus Jelení: ad ripam viae publicae in peripheria bor.-occid. vici derelicti Jelení, ca 880 m. J. Hadinec 1990 (cult. in Průhonice sub no JŠ 4556 et JŠ 4557, no det. 10640). – SZ Čechy, Petrovice, na písčité cestě v osadě Panenská, pod pískovcovou skalou. Č. Ondráček 15.V. et 22.V.1993 CHOM (no det. 10739). – Bohemia occid., opp. Mariánské Lázně, pagus Prameny: ad viam publicam ca 2.5 km situ austr. a pago. JK 18.VI.1985 (no det. 10631). – Bohemia occid., opp. Mariánské Lázně: ad viam turisticam coerulee sign., ca 4 km situ boreali ab oppido, ca 780 m. JK 19.V.1990 (no det. 10742; *Taraxaca* Exs. no 319, no det. 9966). – Jižní část Třebízského údolí na S okraji Mariánských Lázní: mezi Lesním pramenem a kavárnou Lunapark, 660 m. M. Štech 9.VI.1992 herb. Štech (no det. 10317, 10318, 10337, 10380). – Bohemia occid., opp. Konstantinovy Lázně: in declivibus bor. collis Hradiště. L. Kirschnerová 6.VI.1987 (no det. 10628). – Bohemia occid., distr. Plzeň-jih; in margine viae Polánka - Pohoff (in silva) apud vicum Polánka (apud Kramolín), ca 600 m. M. Král 27.V.1989 (no det. 10638). – Bohemia centr., opp. Příbram: graminosis ad viam publicam in pago Nové Podlesí. JŠ 10.V.1990 (no det. 10634). – Bohemia centr., opp. Příbram: in fossa viae publicae inter vicos Nové Podlesí et Oseč. JŠ 10.V.1990 (*Taraxaca* Exs. no 315, no det. 9962; no 316, no det. 9963). – Bohemia centr., opp. Příbram, pagus Leletice: ad viam publicam prope piscinam Leletický rybník. L. Hrouda et JŠ 30.V.1985 (*Taraxaca* Exs. no 318, no det. 9965). – Bohemia australis, distr. Blatná: vallum piscinae Velký Pálenec dictae haud procul a pago Vrbno, prope viam. JK 24.V.1981 (no det. 10630), cult. in Průhonice sub no JŠ 162 (no det. 10633). – Bohemia merid.-occ., montes Šumava, distr. Klatovy, pagus Železná Ruda: in prato (in locis denudatis), ca 2 km situ orientali a vico Prášily, 890 m. L. Kirschnerová et al. 12.VI.1988 (no det. 10627). – Bohemia merid.-occ., distr. Klatovy, montes Šumava: in prato apud ruinas domuum Rohrbacher in territorio catastrali Pancf, ca 1000 m. M. Král 14.VI.1987 herb. Král (no det. 10632). – Šumava – Sušice-Albrechtice, mokré pastviny pod silnicí v obci. J. Vaněček 21.V.1992 herb. Vaněček (no det. 10412). – Sušice-Luh – les a pastviny při Otavě nad Sušicí. J. Vaněček



Fig. 6. – *Taraxacum atrox* Kirschner et Štěpánek spec. nova; habitus, bar = 5 cm; achene, bar = 1 mm.

8.V.1992 herb. Vaněček (no det. 10409). – Mělčice. J. Vaněček 27.V.1992 herb. Vaněček (no det. 10413). – Srní: louky pod plavebním kanálem. J. Vaněček 20.VI.1989 herb. Vaněček (no det. 8577). – Bohemia merid., montes Šumava, distr. Vimperk, pagus Kvilda: in caespitibus et ad vias in pago Kvilda, 13°35'E 49°01'N. JŠ 9.VII.1991 (no det. 9321). – Ptáková Lhota u Vacova – asi 500 m Z obce, polní cesta. V. Žíla 18.V.1991 herb. Žíla (no det. 10118). – Okraj lesa asi 1 km Z od obce Blažejovice (6 km SV od Volar), 760 m. M. Štech 5.VII.1992 herb. Štech (no det. 10382). – Bohemia australis, opp. Veselí nad Lužnicí: in vallo piscinae Ponědražský rybník prope pagum Ponědraž, haud procul a via publica inter oppidum Veselí et pagum Lomnice. A. Blab et JK 30.V.1991 (Taraxaca Exs. no 314, no det. 9961). – Moravia occ., opp. Žďár nad Sázavou, pagus Račín: graminosis in via silvatica in parte cacuminali montis Vápenice (628 m), ca 2 km situ merid. a pago. JŠ 27.V.1985 (no det. 10636). – Moravia occ., opp. Žďár nad Sázavou, pagus Račín: secundum viam publicam in pagum Polníčka, ca 0.3–1.0 km situ orient. a pago Račín. JŠ 27.V.1985 (no det. 10637; Taraxaca Exs. no 317, no det. 9964). – Moravia boreal., montes Kralický Sněžník: in parte cacuminali montis Kralický Sněžník (1424 m). F. Krahulec et A. Krahulcová 30.VIII.1987 (cult. in Průhonice sub no JŠ 3265, no det. 10639). – Montes Hrubý Jeseník, pagus Karlova Studánka. B. Trávníček 27. 5. 1993 herb. Trávníček (no. det. 12367, 12368). – Karlov, ca 1 km bor. a summo collis Malý Máj. B. Trávníček 27. 5. 1993 herb. Trávníček (no. det. 12366).

XIII. A new early-flowering apolline species of the sect. *Ruderalia*

In C Europe (Czechia, Germany), a very conspicuous phenomenon can be observed in early spring. The dandelion flora of drier city habitats is dominated by a single apomictic species of the section *Ruderalia*, probably the first one to blossom. The species is remarkable in having deep purple leaf coloration (petioles), interlobes also blotched dark purple, leaf lobes distinctly dentate, almost lemon-yellow capitula with dark green stigmas covered with blackish hairs, and empty, apolline anther tubes. Occasional imperfect opening of florets makes the appearance of capitula rather 'untidy'. Another feature typical of this taxon is the posture and coloration of outer bracts: they are recurved to reflexed, subsecund, narrow, pinkish or often greyish-greenish with pale purple patches. The species has been distributed as nos 297–303 of *Taraxaca Exsiccata* under the name *T. atrox*; it is recognized by a number of dandelion experts and known from hundreds of localities in Germany, Bohemia and Moravia. The name is validated below.

Taraxacum atrox Kirschner et Štěpánek, spec. nova

(T. sect. *Ruderalia* Kirschner, H. Øllgaard et Štěpánek)

Descriptio (cf. etiam Fig. 6): Plantae mediocres. Folia suberecta vel subpatentia, saturate viridia, sparse araneosa vel subglabra, plerumque 12–20 cm longa, 3.5–4.5 cm lata, profunde lobata. Lobus terminalis triangularis, late triangularis vel subtripartitus, apice subelongato, acuto, remote dentato. Lobi laterales numerosi (5–7 utrobique), ad 2.5 cm longi, frequentissime paulo recurvati, anguste triangulares, superne plerumque dissecti (lobulo magno lobiforme instructi), marginibus distalibus rectis, paulo sigmoideis vel subconcavis, fere semper dentatis vel irregulariter remote dentatis, marginibus proximalibus subintegris vel ad basin minute subdentatis. Interlobia angusta, 2.5–5 mm lata, saepissime paulo crispata vel subplana, subtus vel in superficiebus ambabus violacee-hepatice maculata. Petiolus angustus vel anguste alatus, violaceus, nervus medianus pallide violaceus, subaraneosus. Scapus foliorum aequans vel paulo superans, 15–25 cm longus, araneosus, viridis vel paulo rubescens. Involucrum squamis interioribus epruinosis obscure viridibus, squamis exterioribus oblique recurvatis, regularibus vel subsecundis, numero 11–15, rectis vel inconspicue sigmoideis, angustis, saepissime 2.0–3.0 (–3.5) mm latis et 9–12 mm longis, ecorniculatis, supra epruinosis, griseo-viridibus roseo-maculatis vel pallide rubescentibus. Calathium 3.0–3.5 (–4.5) cm in diametro, flavum-subcitrinum. Ligulae marginales planae, extus stria cano-viridi notatae, ligulae interiores ± planae vel irregulariter subcucullatae. Stigmata obscure viridia, extus pilis nigricantibus obsita. Antherae polline carentes. Achenium fusco-stramineum, superne dense spinulosum, ceterum rugosum, 3.5–3.8 mm

longum (pyramide inclusa), ca 1 mm latum, in pyramidem subcylindricam 0.5 mm longam subabrupte abiens. Rostrum 10–11 mm, pappus 6–7 mm longi.

Species agamosperma, $2n = ?$

Holotypus: Bohemia occid., opp. Podbořany, pagus Nepomyšl: in prato in decl. $\pm$ merid. ca 1.5 km situ occid. a pago. Alt. ca 480 m s.m. $13^{\circ}18'E$, $50^{\circ}13'N$. Die 12. 5. 1991 leg. J. Štěpánek. In herbario PRA asservatur sub no. det. 10701.

Selected herbarium specimens:

Germany: Berlin – Lichtenberg, Schlichtallee, Rasenfläche / Cornus-Hecke. I. Uhlemann 9. IV.1992 herb. Uhlemann (no det. 11091). – Berlin (Lichtenberg) – Böschung am Südeingang zum S-Bhf. Ostkreuz. I. Uhlemann 27.III.1993 herb. Uhlemann (no det. 11113), I. Uhlemann 6.IV.1994 herb. Uhlemann sub *T. atrocapillo* C. E. Sonck (no det. 11089). – Berlin (Lichtenberg) – Fischerstr., östlich der Kleingartenanlage, ruderal. I. Uhlemann 9.IV.1993 herb. Uhlemann (no det. 11114). – Berlin (Lichtenberg) – Wartenbergstr., Wegrand. I. Uhlemann 7.IV.1993 herb. Uhlemann (no det. 11115). – Berlin (Lichtenberg) – Dolgenseestr. 27, ca 10 m östl. des Hauseingangs, am Gebäude. I. Uhlemann 2.IV.1993 herb. Uhlemann (no det. 11090). – Berlin (Charlottenburg) – südexponierte Böschung nahe der Glockenturmbrücke westl. der Brücke. I. Uhlemann 13.IV.1993 herb. Uhlemann (no det. 11116). – Berlin (Charlottenburg) – südexponierte Böschung, zwischen dem S-Bhf. Pichelsberg und der Glockenturmbrücke. I. Uhlemann 13.IV.1993 herb. Uhlemann (no det. 11088).

Czech Republic – Bohemia: Perštejn-Lužný, v osadě na krajnici cesty, 310 m. J. Lorber 12.V.1989 CHOM (no det. 10419). – Bohemia occid., opp. Podbořany: in caespitibus in pago Podbořanský Rohozec, $13^{\circ}16'E$ $50^{\circ}13'$, ca 500 m. JŠ 12.V.1991 (no det. 10312). – Bohemia occid., opp. Podbořany, pagus Krásný Dvůr: in prato in horto arboreo ad pagum Krásný Dvůr, $13^{\circ}22'E$ $50^{\circ}15'N$, ca 300 m. JŠ 4.V.1992 (no det. 10308). – Bohemia occid., opp. Podbořany: in prato in oppidi peripheria bor-orient. JŠ 22.IV.1990 (Taraxaca Exs. no 299, no det. 9946). – Bohemia occid., opp. Rakovník, pagus Hofesedly: graminosis in area pagi. JŠ 22.IV.1990 (no det. 10296). – Libice nad Cidlinou, louka 400 m JJV od ústí Cidliny. J. Rydlo 8.V.1984 ROZ (no det. 10143). – Bohemia centr., opp. Mělník, pagus Kly: in fossa viae publicae inter pagos Kly et Zábofi. JŠ 20.IV.1990 (no det. 10291). – Bohemia centr., opp. Beroun, pagus Sýkořice: secundum vias rusticas in loco Na Selci, ca 1 km situ merid.-orient. a pago. JŠ 1.V.1990 (no det. 10293). – Bohemia centr., opp. Beroun, pagus Loděnice: in pratis in decl. $\pm$ boreal. et in cacumine collis Špičatý vrch, ca 1 km situ merid. a pago Loděnice. JŠ et J. Štěpánková 5.V.1990 (no det. 10294). – Bohemia centr., opp. Beroun, pagus Zadní Třebáň: in colle supra stationem ferroviae. JK et JŠ 4.V.1982 (no det. 10279). – Bohemia centr., urbs Praha, pagus Radotín: graminosis in angiporto Slavičů ulice, in parte boreali pagi (in valle Radotinské údolí). JŠ 2.V.1982 det. H. Øllgaard 1983 sub nom. *T. lucentipes* M. P. Chr. (no det. 10292). – Bohemia centr., urbs Praha: in caespitibus in decl. merid. vallis Motolské údolí in urbis parte Motol dicta, ca 300 m. JŠ 24.IV.1986 (no det. 10298). – Bohemia centr., urbs Praha: graminosis in peripheria merid. stationis ferroviae Praha - Dejvice, ca 310 m. JŠ 23.IV.1983 (no det. 10283, 10289). – Bohemia centr., urbs Praha: in loco Bulovka in urbis parte Libeň. Krauskopf VI.1983 (no det. 10288). – Bohemia centr., urbs Praha: in caespitibus ad pagum Klukovice in urbis peripheria mer.-occid., ca 320 m. JŠ 1.V.1989 (no det. 10305). – Bohemia centr., urbs Praha: in caespitibus semiruderalibusque in urbis parte Barrandov dicta. JŠ 18.V.1991 (no det. 10306). – Bohemia centr., urbs Praha: in caespitibus in propatulo castris in pago Průhonice, ca 300. JK 28.IV.1986 (no det. 10303), JŠ 24.IV.1989 (no det. 10300), JŠ IV.1990 (no det. 10299). – Bohemia centr., urbs Praha, pagus Průhonice: in caespitibus in pagi parte occidentali. JK et JŠ V.1989 (no det. 10302). – Bohemia centr., urbs Praha, pagus Průhonice: in prato in horti arborei parte meridionali. JŠ 20.IV.1989 (no det. 10311; Taraxaca Exs. no 297, no det. 9944; Taraxaca Exs. no 298, no det. 9945). – Bohemia centr., pagus Průhonice: in caespite in pomario experimentali Průhonice - Chotobuz. JŠ et JK 25.IV.1983 (Taraxaca Exs. no 300, no det. 9947; Taraxaca exs. no 301, no det. 9948), 24.IV.1989 (no det. 10304). – Bohemia centr., pagus Průhonice: in caespite in loco "Jezírka" in parte merid. pagi, ca 300 m. JK et JŠ 18.V.1984 (no det. 10307). – Bohemia centr., pagus Průhonice: pars pagi Hole dicta, in herbosis inter viam publicam et piscinam parvam. JK et JŠ 22.IV.1983 (no det. 10309; Taraxaca Exs. no 302, no det. 9949). – Bohemia centr., urbs Praha, pagus Chodov: locis semiruderalibus haud procul a statione viae subterr. Opatov (olim „Družby“) dictae, ca 310 m. JŠ 27.IV.1983 (no det. 10280), JK 23.IV.1984 (no det. 10287), JŠ 4.V.1984 (no det. 10310; Taraxaca Exs. no 303, no det. 9950). – Bohemia austr., montes Šumava, pagus Horská Kvilda. B. Trávníček 27.5. 1995 herb. Trávníček (no det. 12331).

Czech Republic – Moravia: Jesenické podhůří, Jívová, u silničky v údolí Bystřice asi 0.7 km JZ od železniční stanice, 430 m. B. Trávníček 23.V.1991 herb. Trávníček (no det. 10259). – opp. Opava, pagus Štáblovice. Trávníček 6.5. 1993 herb. Trávníček (no det. 12348). – Opp. Krnov, in pagus Krásné Loučky. B. Trávníček 9.5. 1995 herb. Trávníček (no det. 12334). – Montes Bílé Karpaty, pagus Nová Lhota, ca 1.5 km

bor.-orient. a pago. B. Trávníček 6.5. 1995 herb. Trávníček (no det. 12336). – Opp. Kojetín, ad pontem viae ferratae trans fluvium. B. Trávníček 1.5. 1994 herb. Trávníček (no det. 12341). – Opp. Olomouc, ad plateam '17.listopadu'. B. Trávníček 23.4. 1992 herb. Trávníček (no det. 12330). – Hornomoravský úval: Černovír u Olomouce, trávník v S části obce, ca 210 m. B. Trávníček 2.V.1990 herb. Trávníček, PRA (no det. 8562). – Hornomoravský úval: Otrokovice, vlhké louky vlevo od silnice do Tlumačova asi 0.5 km S od rybníka Bahňák, 190 m. B. Trávníček 7.V.1991 herb. Trávníček (no det. 10258). – Hornomoravský úval: Kojetín, trávník v Kroměřížské ulici (na rohu Blatenské ulice), ca 200 m. B. Trávníček 22.IV.1990 herb. Trávníček, PRA (no det. 8563).

Slovak Republic: Záhorská nížina, Vysoká pri Morave, vlhká louka asi 1 km J obce, 150 m. B. Trávníček 3.V.1991 herb. Trávníček (no det. 10261).

XIV. Pseudoisotype, pseudoparatype, a term coined in *Taraxaca Exsiccata*

Some of the exsiccates distributed in *Taraxaca Exsiccata* come from cultivation of seeds obtained from authentic specimens. Thus, no. 157, *T. subolivaceum* is a result of cultivation of seeds of original paratype, and no. 257 has been cultivated from seeds of the original isotype. Obviously, the material with types as maternal plants may be very useful for interpretation of the original types. In particular, plants with obligate agamospermous reproduction should give reliable copies of maternal plants and may give a better picture of the taxon in question if the original plants were improperly developed or when some organs (e. g., flowers) were missing from the parental specimen.

In order to appreciate properly the 'typoid' character of such plants, we suggest to use the term **pseudotype** for them in general. For progeny of more narrowly defined types (isotypes, neotypes, lectotypes, paratypes etc.) it may be useful to use terms derived in similar way: pseudoisotype, pseudoneotype etc.

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Souhrn

Exsikátová sbírka *Taraxaca Exsiccata* vyšla v r. 1996 již ve svém 9. svazku a dosáhla čísla 412. Vzhledem k tomu, že jsou ve sbírce vydávány rostliny pod provisorními jmény, aby mohly být posouzeny dalšími specialisty, a také proto, že na exsikátových schedách se objevují nomenklatorické a taxonomické poznámky, je třeba vždy po určité době tyto novinky efektivně publikovat. Předložená práce uvádí popisy šesti nových druhů: tři velice častých druhů ze sekce *Ruderalia*, *T. hercynicum*, pozdě na jaře kvetoucí druh se světle zelenými listy, četnými postranními úkrojky listů, bez pylu a se světlými bliznami, dále *T. atrox*, naopak jeden z nejčasnějších druhů z této sekce, s temnými bliznami a bez pylu, a *T. sertatum*, hojný druh z blízkosti *T. pallidipes* Markl. Další tři druhy patří do jedné příbuzenské skupiny, která tvoří hranici mezi sekcemi *Ruderalia* a *Palustris*. *T. tragopogon* je častější v Čechách, *T. fascians* na Slovensku a *T. rutilum* v Německu. Všechny tři druhy mají rozestálé až vzpřímené vnější zákrovní listeny a rostou na vlhkých loukách. Jednotlivé poznámky jsou věnovány nomenklatuře: *T. quadrangulum* je synonymizováno s *T. flagelliferum*,

T. hygrophilum s. *T. johannis-jansenii*. Pro rostliny, vypěstované z plodů typových exemplářů je zaveden termín pseudotypus (a odvozené termíny pseudoisotypus, pseudoparatypus atd., podle toho, z jaké typoidní rostliny plody pocházejí). Taxonomická poznámka je věnována druhu *T. vindobonense*, neobvykle geneticky proměnlivému a morfologicky rozrůzněnému.

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