

CAREX PALLENS (CYPERACEAE), A SPECIES NEW TO POLAND

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Abstract: *Carex pallens* (Fristedt) Harmaja, a new species for the flora of Poland, was found in four localities in the calcareous area of the Cracow-Częstochowa Upland and Góry Świętokrzyskie Mts. in central Poland. The most important differences between *C. pallens* and the morphologically similar *C. digitata* L. are given. The habitat and geographical distribution of *C. pallens* in Poland are provided. The chromosome number $2n = ca\ 51$ is reported.

Key words: Cyperaceae, *Carex pallens*, taxonomy, chromosome number, distribution, Poland

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Carex pallens (Fristedt) Harmaja was found in scattered localities in the Cracow-Częstochowa Upland and in the Góry Świętokrzyskie Mts. The most conspicuous and common feature of both physical-geographical units is the occurrence of calcareous outcrops. The species was observed in stands of xerothermic grassland rich in thermophilous flora and as a rule in the ecotone zone of thermophilous beechwood and oak-hornbeam forest. The phytosociological spectrum of sample vegetation plots of phytocoenoses stands with *C. pallens* is given in Table 1.

Carex pallens resembles *C. digitata* L. morphologically, and probably they have often been mistaken for each other. *C. pallens* differs from *C. digitata* in the color of the bract sheaths, the length and shape of the perigynium, and characters of the stem. The most important features enabling comparison of the two species are presented in Table 2.

Carex pallens is known from northern Sweden, southern Finland (Harmaja 1986, 1990), the Czech Republic, Slovakia and Yugoslavia (Holub 1991) and the District of Saint Petersburg in Russia (Alekseev 1992). In fact its precise geographical distribution has not yet been delineated. However, information points to its possible occurrence in Central and Southern Europe. Certainly *C. pallens* is not a common species, and its range is most probably disjunctive. Presently the area of its most

frequent occurrence is southern Scandinavia (Harmaja 1986, 1990).

The distribution map of *C. pallens* in Poland (Fig. 1) is incomplete. Potential localities in Poland include especially areas with calcareous outcrops such as Lower Silesia, the Lublin Upland and Roztocze. Its occurrence in the Pieniny Mts. seems likely, though I have not found it there yet.

Carex pallens has $2n = ca\ 51$ chromosomes. This result coincides with a previous count from material from Finland (Harmaja 1990). Prof. An-

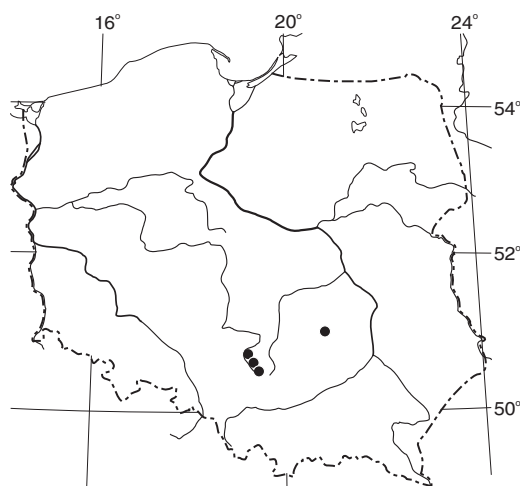


Fig. 1. Distribution of *Carex pallens* (Fristedt) Harmaja in Poland.

Table 1. Phytocoenotical spectrum of *Carex pallens*; 1 – Zielenka Góra reserve, *Carpinus betulus* forest side margin (10.05.1997); 2 – Świniuszka Mt., *Fagus sylvatica* forest margin (20.05.1997); 3 – Rodaki, *Fagus sylvatica* forest side margin (14.05.1997); 4 – Gruszczyn, calcareous slopes (2.06.1997).

Relevé number	1	2	3	4
Area of relevé [m ²]	50	20	30	50
Inclination [°]	20	40	45	40
Exposure	SW	SE	SW	NW
Altitude a.s.l.[m]	310	460	370	350
Cover of shrubs [%]	30	20	5	15
Cover of herbaceous plants [%]	80	70	70	70
<i>Carpinus betulus</i>	+	.	.	.
<i>Corylus avellana</i>	2	.	.	+
<i>Fagus sylvatica</i>	.	.	+	.
<i>Juniperus communis</i>	.	+	+	+
<i>Pinus sylvestris</i>	.	1	.	1
<i>Carex pallens</i>	3	2	3	2
<i>Achillea millefolium</i>	.	+	.	.
<i>Acinos arvensis</i>	.	+	.	+
<i>Anthyllis vulneraria</i>	.	+	.	+
<i>Brachypodium sylvaticum</i>	+	+	.	1
<i>Briza media</i>	.	+	.	1
<i>Campanula sibirica</i>	.	.	.	1
<i>Carex ericetorum</i>	.	.	+	.
<i>Carlina vulgaris</i>	.	+	.	+
<i>Chamaecytisus ratisbonensis</i>	+	.	+	.
<i>Coronilla varia</i>	+	+	.	.
<i>Danthonia decumbens</i>	.	+	.	.
<i>Dianthus carthusianorum</i>	+	.	.	.
<i>Epipactis atrorubens</i>	.	+	+	.
<i>Euphorbia cyparissias</i>	.	+	.	.
<i>Euphrasia stricta</i>	.	+	.	+
<i>Festuca ovina</i>	.	2	3	+
<i>Fragaria vesca</i>	.	.	.	1
<i>Galium verum</i>	+	+	.	+
<i>Helianthemum ovatum</i>	+	+	+	.
<i>Hepatica nobilis</i>	1	+	.	1
<i>Hieracium murorum</i>	.	.	.	1
<i>Hieracium pilosella</i>	.	+	.	.
<i>Knautia arvensis</i>	.	.	+	.
<i>Leontodon hispidus</i>	.	+	.	+
<i>Linum catharticum</i>	.	1	.	+
<i>Medicago falcata</i>	.	.	+	.
<i>Melampyrum nemorosum</i>	1	.	.	.
<i>Melica nutans</i>	2	+	.	1
<i>Plantago lanceolata</i>	.	+	.	.
<i>Plantago media</i>	.	.	.	+
<i>Poa compressa</i>	.	+	.	+
<i>Polygala comosa</i>	.	.	.	+

Table 1. Continued.

Relevé number	1	2	3	4
<i>Potentilla arenaria</i>	.	1	1	+
<i>Potentilla heptaphylla</i>	+	.	.	.
<i>Prunella vulgaris</i>	.	+	.	.
<i>Ranunculus nemorosus</i>	.	+	.	.
<i>Sanguisorba minor</i>	.	+	.	.
<i>Scabiosa ochroleuca</i>	+	.	.	.
<i>Silene otites</i>	.	+	1	.
<i>Thymus serpyllum</i>	.	+	+	.
<i>Viola collina</i>	+	+	.	+
<i>Viola hirta</i>	+	.	.	+

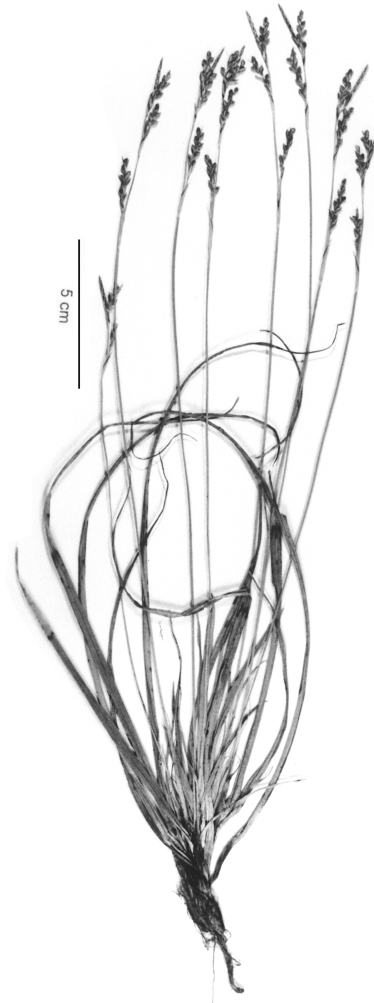


Fig. 2. Herbarium specimen of *Carex pallens* (Fristedt) Harms from Zielenka Góra reserve near Częstochowa.

Table 2. Morphological differences between *Carex pallens* and *C. digitata*.

	<i>Carex pallens</i>	<i>Carex digitata</i>
Stem	erect and rigid	leaning and slender
Colour of the sheaths of the bracts except of their margins	green or straw-green	brown throughout
Length of perigynium	3.3 – 3.7 mm	3.8 – 4.2 mm
Beak of perigynium	as long as broad, broadly conical	clearly longer than broad, narrowly conical and shorter

drzej Jankun analyzed the karyology of a single plant collected in the Zielona Góra reserve near Częstochowa, potted and currently cultivated in my private garden.

Carex pallens (Fristedt) Harmaja Fig. 2
Ann. Bot. Fennici 23: 148, 1986.

Carex digitata L. var. *pallens* Fristedt, Växtgeografisk skildring af södra Ångermanland: 36. Upsala 1857.

SPECIMENS EXAMINED. POLAND. CRACOW-CZE-
STOCHOWA UPLAND: 1 – Zielona Góra reserve (50°47'N/
19°15'E) near Częstochowa, *Carpinus betulus* forest
margin, 310 m a.s.l., 20.05.1995, leg. Z. Szelağ. 2 –
Świniuszka Mt. (50°23'N/19°31'E) near Ogrodzieniec,
Fagus sylvatica forest margin, 460 m a.s.l., 10.05.1996,
leg. Z. Szelağ; 3 – Rodaki, (50°24'N/19°31'E), *Fagus*
sylvatica forest margin, 370 m a.s.l., 14.05.1997, leg. Z.
Szelağ; GÓRY ŚWIĘTOKRZYSKIE MTS. 4. Gruszczyn
(48°55'N/20°10'E) near Małogoszcz, calcareous slopes,
350 m a.s.l., 2.06.1997, leg. Z. Szelağ.

Herbarium specimens have been deposited
in the Herbarium of the Institute of Botany of

the Polish Academy of Sciences in Kraków
(KRAM).

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