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## *Rubus parthenocissus* (Rosaceae) in Poland

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**Abstract:** *Rubus parthenocissus*, recently described species, known mainly from the southern part of Central Europe, has been found on 23 localities in S Poland.

**Additional key words:** woody flora, bramble, new species

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### Introduction

Studies of Czech botanists conducted in the last decade resulted in recognizing and describing six new species of *Rubus* series *Discolores* (Trávníček and Zázvorka 2005). Some of them are distributed in the immediate vicinity of the Polish-Czech and Polish-Slovak borders and it was to be expected that they would also occur in S Poland. Therefore, special attention was paid to this group in field investigation on brambles of this region. In the Polish flora the series is represented up to now by about 10 species (Zieliński 2004; Kosiński and Bednorz 2003; Zieliński et al. 2004), distinguishing from the others by erect, high-arching, glabrous stems with uniform prickles and usually without stalked glands, and by grey-white to white-felted sepals and underside of leaves.

*Rubus parthenocissus* Trávníček et Holub is a triploid species from the mentioned above series. Although it was described in 2005 (Trávníček and Zázvorka 2005), it had been already known earlier under the same provisional name published in Czech botanical literature (e.g. Holub 1999).

### General distribution

*R. parthenocissus* is a regional species distributed mainly in the southern part of Central Europe: from SE Germany, through the Czech Republic, N Austria and S Poland, to Slovakia (Trávníček and Zázvorka 2005).

### Distribution in Poland

For the first time *R. parthenocissus* was found in Poland in 1998, in the East Sudetes (KOR 41490; Kosiński 2001; Kosiński and Bednorz 2003). The same locality was mentioned later by Trávníček and Zázvorka (2005). During the field work on bramble flora of SE Poland and Sudety region 22 new localities of this species were found (Fig. 1).

Distribution of *R. parthenocissus* in Poland shows distinct geographical disjunction amounting to about 250 km (Fig. 1). On the one hand it is to be supposed, that this species may be in fact wider scattered in S Poland (finding it on another sites in future is probable). Nevertheless, it is inconsistent with the fact, that this bramble was not found in southeastern

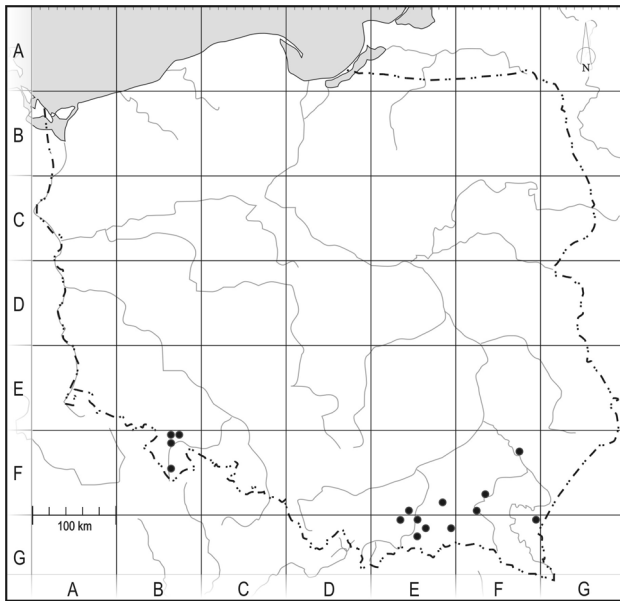


Fig. 1. Distribution of *Rubus parthenocissus* in Poland. 10 km × 10 km grid in accordance with *Distribution Atlas of Vascular Plants in Poland* (Zając and Zając 2001)

Lower Silesia, despite detailed field surveys (Zieliński et al. 2004). On the other hand explanation for this phenomenon may be uneven, strip-shaped range pattern of *R. parthenocissus*. Lower Silesian localities matches the Czech ones and the Międzyzylesie Pass might be way of migration of the species to Poland. However, localities from SE Poland do not fit into the puzzle, because they are separated from the nearest located ones in S Slovakia. Further studies in Slovakia and Poland should clarify this problem.

In the light of current data, *R. parthenocissus* is the rare bramble, occurring on its stands mostly singly or sparsely, and as such should be regarded as an endangered species in Poland.

## Habitat

*R. parthenocissus* occurs in the warm regions of S Poland, in the altitude of 200–520 m (mean 383 m). It grows on sunny or partially shaded places in shrub communities, mainly along roads, dirty-tracks, railway lines and baulks, on margins of forests and forest roads, preferring fertile, rather basic and well-drained soils.

## Description of the species based on collected material (Figs 2, 3, 4, 5)

Stems erect or suberect, 1–1.5 m tall, angled, usually with deeply furrowed sides, glabrous; prickles uniform, on angles, up to 8 (–11) per 5 cm, 5–8 mm long, straight or a little curved, broad-based (5–8 mm), slightly declining. Leaves 5-foliolate, digitate,

dull green and glabrous above, green-grey- to grey-felted beneath, with thin layer of stellate hairs (in the shade stellate hairs much less numerous and the lower leaflet surface almost green) and with few short simple hairs. Leaflets usually not contiguous, terminal ones on mid-long petiolules (30–40% of their lamina), broadly ovate to broadly obovate (to suborbicular in older leaves), rounded at the base (rarely subcordate), with short acuminate apex 13–17 mm long, periodically serrate, incisions up to 5–6 mm deep; principal teeth distinctly prominent, straight or somewhat retrorse. Basal leaflets on relatively long petiolules (5–9 mm). Petioles patent-hairy, with numerous (10–21) strongly curved prickles. Stipules filiform. Inflorescence paniculate, often rich, conical, usually truncate at the apex, sometimes almost cylindrical, with 3–4(–5)-foliate leaves below and with simple leaves distributed to the apex. Inflorescence axis usually stiff and zigzag, pubescent with long simple and tufted hairs, also with underlayer of stellate hairs and subsessile glands hidden in hairs (more numerous in the upper part); prickles curved, usually 4–5(–6) mm long. Pedicels 7–26 mm long, felted, usually with protruding hairs, (0–)1–5(–7), slightly curved prickles 1–2(–3) mm long. Sepals (green-)grey, felted, usually unarmed, strongly reflexed after anthesis. Petals white, rarely pinkish, elliptical or obovate, quite large, 9–13 mm long. Ovaries distinctly hairy above. Receptacle hairy. Stamens exceeding styles. Flowering (VI–)VII(–VIII).

## Main diagnostic features

Among other Polish representatives of the series *Discolores* it is most similar at first glance to *Rubus grabowskii* Weihe, from which it can be separated by following combination of characters: longer petiolules of basal leaflets on first-year stems (5–9 mm versus 3–5 mm), deeper indentations of leaves (particularly of lower inflorescence leaves), leafy to the apex inflorescence with stiff, zigzag axis, and usually white petals (*R. grabowskii* has mostly pink flowers).

## Herbarium specimens seen

Poland, Prov. Lower Silesia: – BF0698, Distr. Bardo, Budzów village, Brzeźnica Massif, near the forester's lodge Tarnawa, 320 m, S slope, roadside thicket, quite numerous (Kosiński, 07.09.2004, KOR); – edge of the woodland path on small hill, 900 m NW from Brzeźnica, 20 m left from the road to Srebrna Góra, 338 m, rather commonly (Kosiński, 19.08.2005, KOR); – near forester's lodge Tarnawa, S slope, 320 m, roadside thicket in the oak forest, singly (Kosiński, 07.09.2004, KOR); – thicket along the road Bardo-Srebrna Góra, 330 m, numerous (Kosiński, 19.08.2005, KOR); – BF0699, Distr. Bardo,

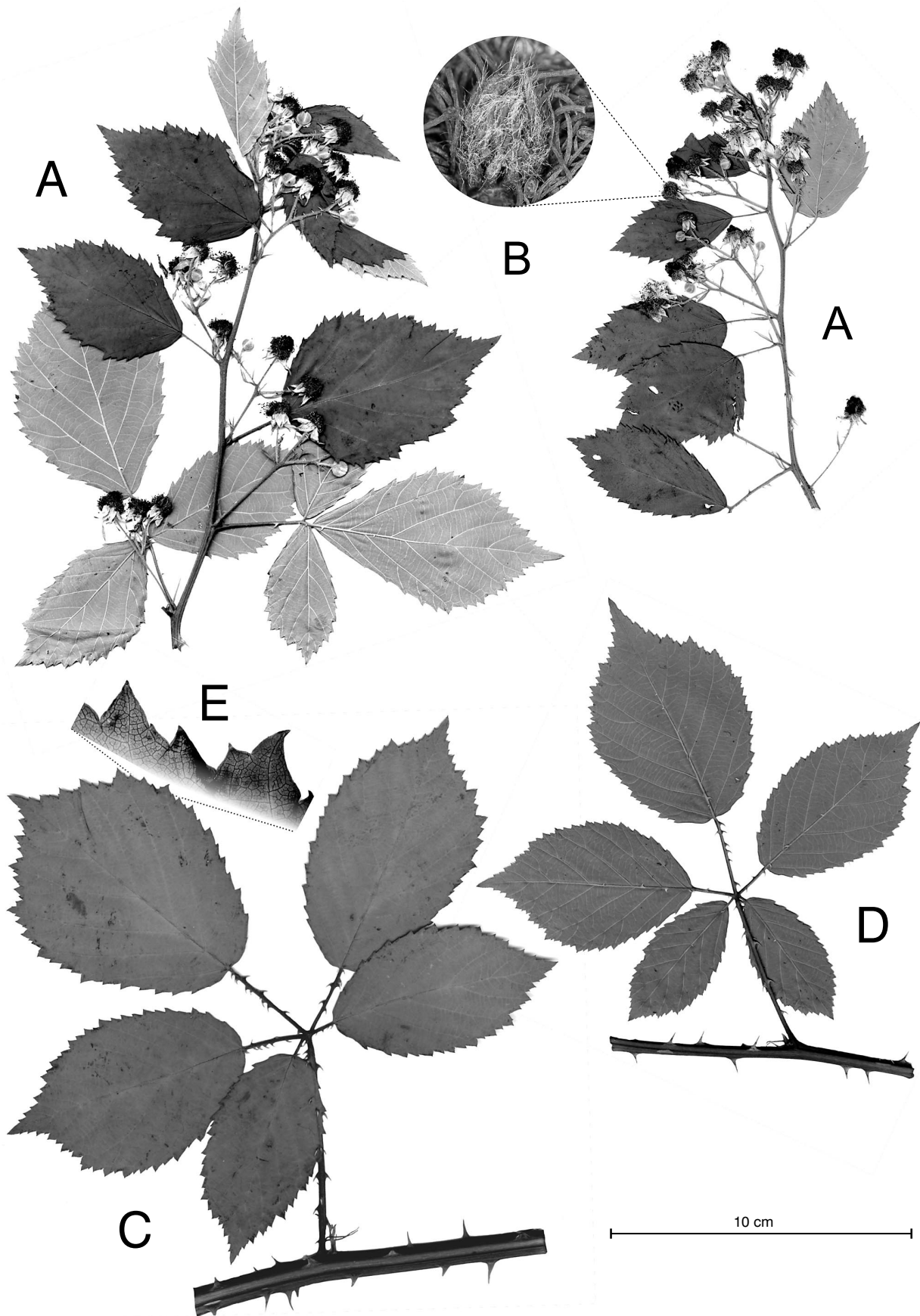


Fig. 2. *Rubus parthenocissus*. A – inflorescence; B – apocarpic gynoecium with hairy ovaries; C – part of sterile stem, upper side of leaf; D – part of sterile stem, under side of leaf; E – margin of terminal leaflet (Kosiński, KOR 43972)



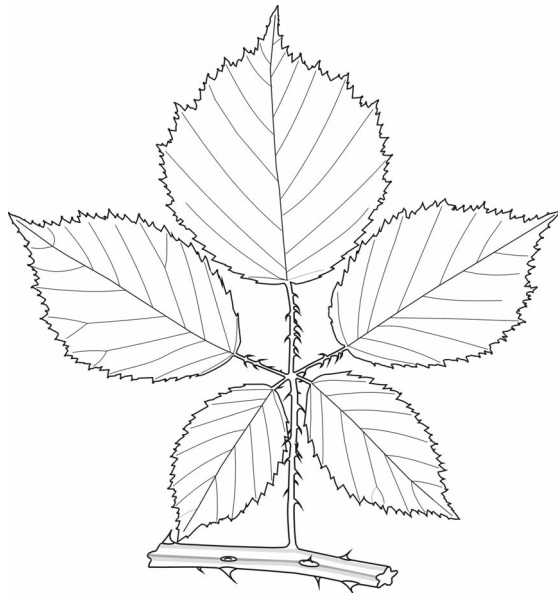


Fig. 3. *Rubus parthenocissus* – leaf from vegetative stem (Kosiński, KOR 41490)

Budzów village, Brzeźnica Massif, 340 m, S slope, roadside thicket, singly (Kosiński, 07.09.2005, KOR); – BF1636, Distr. Kłodzko, Wojbórz village, between Mts. Kłošna and Węglówka, 300 m, roadside thicket, sparsely (Kosiński, 07.08.2002, KOR); – BF0792, Distr. Ząbkowice Śląskie, Braszowice village, SW slope of the Stróżnik hill, 305 m, roadside thicket, sparsely (09.07.2005, Kosiński, KOR); – BF4608, Distr. Bystrzyca Kłodzka, Idzików village, bottom of SW slope of Modlica hill, 445 m, margin of spruce forest, sparsely (Kosiński, 30.09.1998, KOR); **Prov. Małopolska:** – EF8877, Ciężkowickie Foothills, Bituszowa Forestry, ca 5 km SE from Ryglice, along the road in pine-birch wood, 425 m (Oklejewicz, 26.08.2000); – Gilowa village, ca 5 km SE from Ryglice, roadside in pine-birch forest, SE slope below the summit, 468 m, singly (Oklejewicz, 26.08.2000, KRA); – EF9405, Wiśnickie Foothills, Bukowiec Nature Reserve, along the road in hornbeam forest, 300 m, singly (Oklejewicz, 24.08.2001, KRA); – EF9440, Beskid Wyspowy, Krosna, baulk, 500 m, singly (Szewczyk, 15.08.2000); – EG0364, Beskid Wyspowy, Mordarka village, ca 5 km SSE from Limanowa, edge of hazel thicket, singly (Oklejewicz, 08.08.1998, KRA); –



Fig. 4. *Rubus parthenocissus* – fragment of vegetative stem (Phot. P. Kosiński)



Fig. 5. Inflorescence of *Rubus parthenocissus* (Phot. P. Kosiński)

EG0502, Tabaszowa ca 12 km N from Nowy Sącz, margin of birch grove, NE slope, 388 m, sparsely (Oklejewicz, 22.08.2001); – EG1658, Low Beskid, Koziniec, ca 3 km SW from Grybów, edge of silver fir forest, S slope, 500 m, sparsely (Oklejewicz, 18.08.2001); – Koziniec, thicket of *Robinia pseudoacacia*, along railway line (Oklejewicz, 18.08.2001, KRA); – EG1631, Ciężkowice Foothills, Półanki, ca 7 km E from Nowy Sącz, along the road in silver fir forest, E steep slope, 430 m, numerous (Oklejewicz, 04.09.2001, KRA); – EG1911, Low Beskid, Mt Łysula, ca 5 km SEE from Gorlice, forest edge, NW slope; 520 m, singly (Oklejewicz, 28.07.1995); – EG2561, Beskid Sądecki, Wola Krogulecka, ca 5 km SSE from Stary Sącz, the roadside in beech forest, NE slope, 500 m, singly (Oklejewicz, 30.08.2000); **Prov. Podkarpatie:** – FF9249, Dynowskie Foothills, Węglówka, alder thicket with *Solidago gigantea*, along the stream, 300 m, singly (Oklejewicz, 26.07.1999, KRA); – FF2714, Stary Jasiennik, ca 7 km E from Krzeszów, margin of pine wood, 200 m, singly (Agnieszka Michalewska, 18.08.2003, KRA); – FF7381, Strzyżow-

skie Foothills, Podlesie, ca 4 km N from Strzyżów, along dirt-track, NE slope, 390 m, singly (Oklejewicz, 30.07.2001, KRA); – FG0915, Przemyskie Foothills, Koniusza, ca 15 km E from Bircza, along the road in alder-oak wood, NW slope, 430 m, singly (Oklejewicz, 09.10.2000, KRA).

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## References

- Holub J. 1999. Předběhý Červey seznam ostružníků České republiky. Zprávy České Botanické Společnosti 34: 1–19.
- Kosiński P. 2001. Analiza chorologiczna dendroflory polskiej części Sudetów Wschodnich. Instytut Dendrologii PAN, Kórnik (*mscr.*).

- Kosiński P., Bednorz L. 2003. Trees and shrubs of the Polish part of the Eastern Sudety Mts. *Dendrobiology* 49: 31–42.
- Trávníček B., Zázvorka J. 2005. Taxonomy of *Rubus* ser. *Discolores* in the Czech Republic and adjacent regions. *Preslia* 77: 1–88.
- Zajac A., Zajac M. 2001. Distribution Atlas of Vascular Plants in Poland. Laboratory of Computer Chorology, Institute of Botany, Jagiellonian University, Cracow.
- Zieliński J. 2004. The Genus *Rubus* (Rosaceae) in Poland. *Polish Botanical Studies*: 1–300.
- Zieliński J., Kosiński P., Tomaszewski D. 2004. The genus *Rubus* (Rosaceae) in southeastern Lower Silesia (Poland). *Polish Botanical Journal* 49 (2): 161–180.