



RUBUS FLORA OF OLD CEMETERIES, NOT USED FOR BURIAL IN THE WIELKOPOLSKA REGION

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ABSTRACT. Floristic surveys of bramble flora were conducted in 2005–2020 in more than 2150 old cemeteries (no longer used for burial) in the Wielkopolska region or Greater Poland. Forty *Rubus* species were found, in 972 cemeteries. Two taxa were new to the Polish flora: *R. armeniacus* and *R. nemoralis* f. *laciniatus*. Species new to this region were *R. acanthodes*, *R. crispomarginatus*, and *R. praecox*.

KEY WORDS: *Rubus*, bramble, blackberry, dewberry, raspberry, symbolism, chorology, Wielkopolska, Poland

INTRODUCTION

Species of the genus *Rubus* L. are usually shrubs and very rarely herbaceous plants or semi-shrubs. Their leaves are usually palmately and rarely pinnately compound (*R. idaeus*) or single (*R. chamaemorus*). Flowers are medium-sized, rarely small; hermaphroditic except for *R. chamaemorus*, which is dioecious. They have five green sepals and five (sometimes more) petals, usually white or pink, radially arranged. Stamens and pistils are numerous. *Rubus* species have aggregate fruits consisting of juicy drupelets (*R. saxatilis* has exceptionally few drupelets or even single ones). Inflorescences are primarily panicles or racemes; only two species have single flowers: *R. chamaemorus* and *R. arcticus* (KULESZA 1930).

In Poland, *Rubus* species occur throughout the country, most abundantly in submontane areas in its south-western part. The number of bramble species decreases towards the eastern and north-eastern parts of the country (ZIELIŃSKI 2004).

Brambles are symbolic plants. *Rubus* symbolises curse and death but also immortality (KOBIELUS 2006). In the past these prickly bushes also surrounded the graves of people who committed suicide (ZIÓLKOWSKA 1988). This study aims to establish a complete list of species of the genus *Rubus* in old cemeteries (no longer used for burial) in the Wielkopolska region. Such cemeteries are favourable habitats for these plants, so the species that were planted there – because of their symbolic meaning – can spread easily. Also new *Rubus* species can appear there.

MATERIAL AND METHODS

The distribution of *Rubus* species was presented using a cartogram method following the assumptions of the Atlas of Distribution of Vascular Plants in Poland, ATPOL (ZAJĄC 1978), on a grid square of 10 km × 10 km. The borders of the Wielkopolska region, known also as Greater Poland, were adopted from the study of ŻUKOWSKI et al. (2001).

A species list was compiled at each locality. All dried specimens of *Rubus* species were moved in 2023 from the Herbarium of the Department of Botany of the Life Sciences University of Poznań (POZNB) to the Herbarium of the Department of Systematic and Environmental Botany, Adam Mickiewicz University, Poznań (POZ). Except for easily recognisable species, such as *R. armeniacus*, *R. caesius*, *R. idaeus*, *R. laciniatus*, and *R. saxatilis*, the accuracy of identification was verified by Professor Jerzy Zieliński of the Institute of Dendrology, Polish Academy of Sciences, Kórnik.

LIST OF SPECIES AND THEIR LOCALITIES

The species are listed in alphabetical order. Localities of particular species are provided in the alphabetical and numerical order of ATPOL squares.

List of abbreviations and designations: r, +, 1, 2, 3, 4, 5 – degree on Braun-Blanquet cover-abundance scale; *leg.* – collected, *det.* – identified. Location of a cemetery: K – near a church; D – between houses;

C – near an active cemetery; P – among fields; L – in a forest; S – edge of a forest; N – among wastelands; Ł – among meadows; Pa – converted into a park. The date of collection or field identification is given in brackets. Also names of the persons who collected and identified the specimens are given in brackets.

LIST OF NATIVE TAXA OF THE GENUS *RUBUS*

Rubus acanthodes (H. Hofmann ex Focke) Barber
(leg. A. Czarna, det. J. Zieliński)

Lubuskie Province: **AD78** Skibice, near Nowogród Bobrzański, 1, L (18 Aug. 2009).

Rubus apricus Wimm. (leg. A. Czarna, det. J. Zieliński)

Lubuskie Province: **AD36** Bytnica, +, D (24 Sept. 2006).

Rubus bicolor Opiz (leg. A. Czarna, det. J. Zieliński)

Lubuskie Province: **AD63** Luboszyce, near Gubin, +, L (20 Sept. 2008); **AD84** Chlebice, near Tuplice, +, P (16 Sept. 2008); **AD86** Żary, +, K (24 Sept. 2008).

Rubus caesius L. (leg. det. A. Czarna)

Lubuskie Province: **AC06** Tursk, near Sulęcín, +, C (12 Oct. 2009); **AC53** Kostrzyn nad Odrą, +, D (27 Oct. 2011); **AC59** Gościmiec, near Zwierzyn, 3, Ł (10 Nov. 2011); **AC59** Łęcznica, near Stare Kurowo, 1, P (12 Nov. 2012); **AC59** Zagaje, near Zwierzyn, +, D (12 Nov. 2012); **AC67** Gorzów Wielkopolski, 1, P (23 Oct. 2015); **AC67** Osiedle Poznańskie, near Deszczno, 2, C (21 Sept. 2006); **AC68** Nowe Polichno, near Santok, Gorzów, 1, K (11 Aug. 2006); **AC68** Santok, +, N (11 Nov. 2012); **AC74** Kłopotowo, near Witnica, +, N (10 Sept. 2006); **AC75** Zaszczytowo, near Krzeszyce, 4, Ł (10 Sept. 2006); **AC75** Oksza, near Witnica, 3, Ł (10 Sept. 2006); **AC76** Chwałowice, near Bogdaniec, 1, D (28 Oct. 2011); **AC76** Chwałowice, near Bogdaniec, 3, P (28 Oct. 2011); **AC76** Jasieniec, near Bogdaniec, 1, P (28 Oct. 2011); **AC77** Dziesławice, near Deszczno, 1, S (21 Sept. 2006); **AC77** Glinik, near Deszczno, 1, C (21 Sept. 2006); **AC77** Orzelec, near Deszczno, 1, L (21 Sept. 2006); **AC78** Brzozowiec, near Deszczno, 1, C (9 Oct. 2009); **AC79** Gaj, near Przytoczna, 1, P (15 Aug. 2006); **AC79** Nowy Dwór, near Skwierzyna, 1, L (14 Aug. 2006); **AC83** Żabice, near Górzycza, 1, N (13 Sept. 2006); **AC84** Czarnów, near Górzycza, +, C (13 Sept. 2006); **AC84** Słońsk, 2, N (13 Sept. 2006); **AC85** Lemierzyce, near Słońsk, 2, C (20 Sept. 2006); **AC88** Bledzew, +, L (9 Sept. 2006); **AC88** Bledzew, 1, C (9 Sept. 2006); **AC93** Golice, near Słubice, 1, C (13 Sept. 2006); **AC88** Zemsko, near Bledzew, 1, C (8 Oct. 2009); **AC93** Pamięcin, near Górzycza, +, C (14

Oct. 2009); **AC94** Lipienica, near Ośno Lubuskie, 2, L (20 Sept. 2006); **AC94** Ośno Lubuskie, 1, N (12 Sept. 2006); **AC94** Ośno Lubuskie Province, 1, C (12 Sept. 2006); **AC94** Radów, near Rzepin, +, P (14 Oct. 2009); **AC95** Radachów, near Ośno Lubuskie, 2, S (19 Sept. 2006); **AC97** Trzemeszno Lubuskie, near Sulęcín, 1, C (21 Sept. 2006); **AC99** Obrzyce, near Międzyrzecz, 1, D (8 Oct. 2009); **AD02** Nowy Lubusz, near Słubice, 1, P (13 Sept. 2006); **AD02** Słubice, 2, S (14 Sept. 2006); **AD03** Stare Biskupice, near Słubice, 1, C (15 Sept. 2009); **AD04** Rzepin, 1, N (14 Sept. 2006); **AD07** Malutków, near Łągów, 3, N (11 Sept. 2006); **AD08** Żarzyn, near Sulęcín, +, C (9 Sept. 2006); **AD08** Trzemeszno Lubuskie, near Sulęcín, +, P (14 Aug. 2008); **AD09** Kęszycza, near Międzyrzecz, 1, P (8 Sept. 2006); **AD09** Nietoperek, near Międzyrzecz, 1, P (7 Sept. 2006); **AD09** Szumiąca, near Międzyrzecz, 1, C (9 Sept. 2006); **AD13** Maczków, near Cybinka, 1, L (26 Sept. 2006); **AD14** Maczków, near Cybinka, +, D (26 Sept. 2006); **AD15** Gądków Mały, near Torzym, 1, S (26 Sept. 2006); **AD16** Kownaty, near Torzym, +, S (12 Oct. 2009); **AD17** Toporów, near Łągów, +, C (11 Oct. 2009); **AD18** Bucze, near Lubrza, 1, P (22 Sept. 2006); **AD19** Grodziszczce, near Świebodzin, +, P (28 Jun. 2011); **AD19** Kupienino, near Świebodzin, 2, P (30 Jun. 2011); **AD19** Nowa Wioska, near Lubrza, 1, C (8 Oct. 2009); **AD19** Ojerzyce, near Świebodzin, 1, P (30 Jun. 2011); **AD19** Przełazy, near Lubrza, 1, C (22 Sept. 2006); **AD19** Rzeczyce, near Świebodzin, 2, P (30 Jun. 2011); **AD19** Świebodzin, +, C (20 Aug. 2014); **AD19** Wityń, near Świebodzin, 1, P (30 Jun. 2011); **AD24** Drzeniów, near Cybinka, 1, D (25 Sept. 2006); **AD24** Sądów, near Cybinka, 2, Pa (25 Sept. 2006); **AD28** Borów, near Świebodzin, 1, C (8 Oct. 2009); **AD28** Niesulice, near Skąpe, 3, S (23 Sept. 2006); **AD29** Rozłogi, near Świebodzin, 1, D (28 Jun. 2011); **AD34** Chlebów, near Maszewo, 1, S (25 Sept. 2006); **AD34** Rybaki, near Maszewo, 1, L (25 Sept. 2006); **AD35** Korzcyców, near Maszewo, 1, K (25 Sept. 2006); **AD35** Skórzyn, near Maszewo, 2, L (24 Sept. 2006); **AD36** Drzewica, near Bytnica, 1, N (24 Sept. 2006); **AD36** Łąkie, near Skąpe, 1, C (23 Sept. 2006); **AD36** Osiecznica, near Krosno Odrzańskie, 1, N (24 Sept. 2006); **AD37** Radnica, near Krosno Odrzańskie, 1, C (20 Sept. 2009); **AD38** Brody, near Sulechów, 2, C (3 Oct. 2011); **AD38** Międzylesie, near Skąpe, 2, S (23 Sept. 2006); **AD38** Nietkowice, near Czerwieńsk, 1, D (3 Oct. 2011); **AD38** Pałck, near Skąpe, 1, C (30 Sept. 2011); **AD38** Podła Góra, near Skąpe, 1, N (23 Sept. 2006); **AD39** Mozów, near Sulechów, 1, C (30 Sept. 2011); **AD39** Niekarzyn, near Skąpe, 1, D (30 Sept. 2011); **AD39** Sulechów, 1, C (1 Oct. 2011); **AD44** Chlebowo, near Gubin, +, C

- (13 Jun. 2010); **AD44** Połęczko, near Maszewo, +, S (25 Sept. 2006); **AD46** Stary Zagór, near Dąbie, 1, S (21 Sept. 2008); **AD47** Dąbie, 1, N (19 Sept. 2009); **AD47** Gronów, near Dąbie, 1, L (30 Aug. 2008); **AD47** Leśniów Wielki, near Czerwińsk, 1, K (27 Aug. 2008); **AD47** Szczawno, near Dąbie, +, S (19 Sept. 2009); **AD48** Pomorsko, near Sulechów, 1, +, C (3 Oct. 2011); **AD48** Wysokie, near Czerwińsk, +, P (18 Sept. 2009); **AD49** Krępa, near Zielona Góra, +, L (25 Aug. 2008); **AD53** Gubin, 1, C (18 Sept. 2008); **AD53** Gubin, 1, D (3 Aug. 2013); **AD54** Kaniów, near Gubin, 1, S (19 Sept. 2008); **AD55** Welmice, near Bobrowice, 2, P (15 Sept. 2008); **AD56** Dęby, near Bobrowice, 1, N (21 Sept. 2008); **AD57** Chromów, near Bobrowice, 1, L (21 Sept. 2008); **AD57** Drzonów, near Świdnica, +, S (27 Aug. 2009); **AD57** Letnica, near Świdnica, 2, C (27 Aug. 2008); **AD58** Świdnica, 1, D (27 Aug. 2008); **AD63** Brody, +, D (17 Sept. 2008); **AD63** Jasienica, near Brody, 1, S (20 Sept. 2008); **AD63** Węgliny, near Gubin, 1, S (20 Sept. 2008); **AD64** Dąbrowa, near Lubsko, +, L (15 Sept. 2008); **AD64** Grabków, near Lubsko, +, L (15 Sept. 2008); **AD64** Osiek, near Lubsko, +, S (15 Sept. 2008); **AD64** Raszyn, near Lubsko, +, D (15 Sept. 2008); **AD65** Chocicz, near Lubsko, +, K (21 Sept. 2008); **AD65** Górzyn, near Lubsko, +, P (15 Sept. 2008); **AD65** Lutol, near Lubsko, +, C (21 Sept. 2008); **AD66** Łagoda, near Nowogród Bobrzański, 2, L (30 Aug. 2008); **AD67** Kaczeniec, near Nowogród Bobrzański, 1, L (29 Aug. 2008); **AD67** Koźła, near Świdnica, +, P (21 Sept. 2013); **AD69** Ługi, near Otyń, 1, C (26 Aug. 2008); **AD70** Książ Śląski, near Koźuchów, +, D (26 Aug. 2008); **AD73** Sulechów, 1, D (30 Sept. 2011); **AD74** Dłużek, near Lubsko, +, C (16 Sept. 2008); **AD77** Gorzupia Dolna, near Żary, +, C (14 Sept. 2008); **AD78** Chotków, near Brzeźnica, +, N (14 Sept. 2008); **AD78** Przylaski, near Brzeźnica, +, C (17 Aug. 2009); **AD79** Stypułów, near Koźuchów, +, C (14 Sept. 2008); **AD86** Kałubia, near Żary, 1, P (24 Sept. 2008); **AD86** Żary, 1, P (22 Sept. 2013); **AD88** Karczówka, near Brzeźnica, 3, P (18 Aug. 2009); **AD89** Siecieborzyce, near Szprotawa, +, K (20 Aug. 2009); **AD89** Stara Kopernia, near Żagań, +, C (20 Aug. 2009); **AD89** Witków, near Szprotawa, +, K (20 Aug. 2009); **AD94** Dębinka, near Trzebiel, 1, K (16 Aug. 2009); **BC81** Wierzбно, near Przytoczna, +, L (16 Aug. 2006); **BC90** Bobowicko, near Międzyrzecz, 2, D (7 Sept. 2006); **BC90** Żółwin, near Międzyrzecz, 1, C (7 Sept. 2006); **BC91** Pszczew, 1, P (16 Aug. 2006); **BD10** Lutol Suchy, near Trzebiel, 2, P (1 Jul. 2011); **BD20** Kręcno, near Zbąszynek, +, S (1 Jul. 2011); **BD20** Kręcno, near Zbąszynek, +, N (1 Jul. 2011); **BD20** Przygubiel, near Sulechów, 2, P (29 Sept. 2011); **BD30** Klępsk, near Sulechów, 1+, P (29 Sept. 2011); **BD31** Chwalim, near Kargowa, 2, L (15 Jul. 2005); **BD40** Swarzynice, near Trzebiechów, 1, P (1 Oct. 2011); **BD40** Trzebiechów, 1, D (1 Oct. 2011); **BD41** Uście, near Kolsko, 1, D (2 Oct. 2011); **BD42** Sławocin, near Kolsko, 1, S (18 Oct. 2011); **BD50** Czarna, near Zabór, +, L (25 Aug. 2008); **BD50** Miłsko, near Zabór, +, K (13 Sept. 2008); **BD51** Pyrnik, near Bojadła, 1, S (13 Sept. 2008); **BD52** Kolsko, +, D (12 Sept. 2008); **BD53** Śmieszkowo, near Sława, 1, C (18 Oct. 2011); **BD60** Niedoradz, near Otyń, +, C (25 Aug. 2008); **BD60** Otyń, 1, C (25 Aug. 2008); **BD62** Krażkowo, near Sława, +, D (17 Oct. 2011); **BD63** Stare Strącze, near Sława, +, C (17 Oct. 2011); **BD70** Rejów, near Nowe Miasteczko, +1, N (9 Sept. 2008); **BD80** Długie, near Szprotawa, 1, C (21 Aug. 2009); **BD80** Mycelin, near Niegosławice, +, K (21 Aug. 2009); **BD80** Popęszyce, near Nowe Miasteczko, +, Pa (21 Aug. 2009); **BD81** Zimna Brzeźnica, near Niegosławice, + (22 Aug. 2009); **BD89** Borowina, near Szprotawa, +, K (21 Aug. 2009); **BD89** Międzylesie, near Niegosławice, +, C (21 Aug. 2009); **CC32** Czarnowo, near Krosno Odrzańskie, 1, Ł (23 Oct. 2015).
- Wielkopolska Province: **BC17** Piła, 1, S (24 Aug. 2010); **BC18** Śmiłowo, near Kaczory, 2, P (26 Aug. 2010); **BC26** Łomnica, near Trzcianka, 1, K (2 Sept. 2011); **BC27** Kotuń, near Szydłowo, +, N (2 Sept. 2011); **BC28** Dziembowo, near Kaczory, +, L (23 Aug. 2010); **BC28** Morzewo, near Kaczory, +, Ł (23 Aug. 2010); **BC28** Równopole, near Kaczory, Piła, 1, C (25 Aug. 2010); **BC29** Byszewice, near Kaczory, +, C (25 Aug. 2010); **BC29** Grabionna, near Miasteczko Krajeńskie, +, L (24 Sept. 2011); **BC29** Miasteczko Krajeńskie, 1+, S (24 Sept. 2011); **BC29** Prawomyśl, near Kaczory, 1, C (25 Aug. 2010); **BC36** Biała, near Trzcianka, 1, D (2 Sept. 2011); **BC36** Biała, near Trzcianka, +, C (30 Sept. 2014); **BC36** Radolin, near Trzcianka, +, L (3 Sept. 2011); **BC37** Nowa Wieś Ujska, near Ujście, +, P (5 Sept. 2013); **BC38** Kamionka, near Chodzież, 1, L (19 Sept. 2005); **BC39** Mirosław, near Ujście, +, N (5 Sept. 2013); **BC38** Chrustowo, near Ujście, +, C (5 Sept. 2013); **BC38** Chodzież, 1, N (15 Jul. 2006); **BC39** Strzelce, near Chodzież, +, P (27 Sept. 2014); **BC43** Herbutowo, near Wieleń, +, N (5 Sept. 2011); **BC43** Wieleń, +, N (4 Sept. 2011); **BC44** Nowe Dwory, near Wieleń, 1, C (4 Sept. 2011); **BC44** Nowe Dwory, near Wieleń, +, C (4 Sept. 2011); **BC45** Radosiew, near Czarnków, 1, C (4 Sept. 2011); **BC45** Runowo, near Trzcianka, +, P (3 Sept. 2011); **BC45** Zielonowo, near Wieleń, 1, C (10 Sept. 2011); **BC46** Śmieszkowo, near Czarnków, r, L (16 Jul. 2006); **BC46** Kuźnica Czarnkowska, near Czarnków, 1, C (4 Sept. 2011); **BC46** Paliszewo, near Czarnków, +, L (16 Jul. 2006); **BC47** Gębice, near Czarnków, +, D (30 Jul. 2014);

- BC47** Paliszewo, near Czarnków, 1, C (2 Oct. 2014); **BC48** Brzeźno, near Czarnków, +, Ł (15 Jul. 2006); **BC48** Ostrówki, near Budzyń, +, P (18 Sept. 2005); **BC49** Pietronki, near Chodzież, 2, S (4 Sept. 2005); **BC49** Radwanki, near Margonin, 2, C (4 Sept. 2005); **BC50** Błotno, near Zwierzyn, +, D (10 Nov. 2011); **BC50** Nowe Kurowo, near Stare Kurowo, 1, N (12 Nov. 2012); **BC51** Kleśno, near Drezdenko, +, S (12 Nov. 2012); **BC52** Bielice Nowe, near Krzyż Wielkopolski, 1, N (7 Sept. 2011); **BC56** Stajkowo, near Lubasz, 1, D (7 Apr. 2010); **BC57** Krosinek, near Połajewo, 1, P (17 Jul. 2006); **BC58** Zawady, near Ryczywół, +, P (25 Sept. 2011); **BC58** Ryczywół, 1, D (22 Sept. 2011); **BC59** Brzekiniec, near Budzyń, 2, P (2 Sept. 2005); **BC69** Potuły, near Wągrowiec, +, Ł (4 Sept. 2005); **BC69** Żołędzin, near Rogoźno, +, P (18 Sept. 2011); **BC73** Tuchola, near Sieraków, 1, L (9 Aug. 2006); **BC74** Białcz, near Chrzypsko Wielkie, 2, L (6 Aug. 2006); **BC77** Kiszewo, near Oborniki, 1, K (7 Sept. 2009); **BC78** Chodzież, 1, S (19 Sept. 2005); **BC78** Łukowo, near Oborniki, 3, P (15 Sept. 2007); **BC78** Oborniki, +, S (23 Sept. 2014); **BC79** Budziszewko, near Rogoźno, 1, P (28 Aug. 2005); **BC79** Nienawiszcz, near Rogoźno, 2, N (28 Aug. 2005); **BC79** Białęgi, near Murowana Goślina, 1, P (16 Sept. 2007); **BC79** Słomowo, near Rogoźno, 1, C (18 Sept. 2011); **BC81** Muchocin, near Międzychód, +, D (8 Oct. 2009); **BC86** Buszewo, near Pniewy, 1, P (2 Sept. 2006); **BC88** Chojnice, near Suchy Las, 1, N (11 Nov. 2011); **BC89** Biedrusko, near Suchy Las, 1, N (16 Sept. 2007); **BC89** Raduszyn, near Murowana Goślina, 1, P (16 Sept. 2007); **BC93** Wymysłanka, near Lwówek, 1, P (4 Sept. 2006); **BC95** Duszniki, +, P (8 Aug. 2006); **BC95** Niewierz, near Duszniki, 1, S (2 Sept. 2006); **BC99** Owińska, near Czerwonak, 1, S (13 Aug. 2008); **BD03** Lipka Mała, near Nowy Tomyśl, 1, P (5 Sept. 2006); **BD04** Chraplewo, near Kuślin, +, P (3 Sept. 2006); **BD04** Kuślin, near Kuślin, 1, P (3 Sept. 2006); **BD04** Władysławowo, near Lwówek, 1, P (3 Sept. 2006); **BD05** Sędziny, near Duszniki, 2, P (2 Sept. 2006); **BD06** Buk, 3, N (31 Aug. 2006); **BD07** Zakrzewo, near Dopiewo, 1, P (30 Oct. 2012); **BD08** Poznań, near Vivaldi Hotel, +, Pa (24 Jul. 2012); **BD13** Nowy Tomyśl, 1, Pa (17 Jul. 2005); **BD18** Mosina, +, D (15 Sept. 2013); **BD18** Mosina, 1, D (15 Sept. 2013); **BD24** Elźbieciny, near Rakoniewice, 1, P (11 Jul. 2005); **BD38** Donatowo, near Czemiń, 1, P (15 Jul. 2005); **BD35** Puszczykowiec, near Kamieniec, +, D (4 Oct. 2011); **BD36** Kiełczewo, near Kościan, +, L (8 Nov. 2011); **BD40** Swarzynice, near Trzebiechów, 1, P (1 Oct. 2011); **BD40** Trzebiechów, 1, D (1 Oct. 2011); **BD41** Uście, near Kolsko, 1, D (2 Oct. 2011); **BD42** Sławocin, near Kolsko, 1, S (18 Oct. 2011); **BD50** Czarna, near Zabór, +, L (25 Aug. 2008); **BD50** Miłsko, near Zabór, +, K (13 Sept. 2008); **BD51** Pyrnik, near Bojadła, 1, S (13 Sept. 2008); **BD52** Kolsko, +, D (12 Sept. 2008); **BD53** Brenno, near Wijewo, 1, C (18 Oct. 2011); **BD56** Goniembice, near Lipno, 1, D (20 Jun. 2006); **BD56** Osieczna, 1, N (20 Jun. 2006); **BD57** Ziemnice, near Osieczna, 2, S (20 Jun. 2006); **BD68** Krzemieniewo, 1, S (5 Aug. 2005); **BD77** Kłoda, near Rydzyna, 1, N (4 Jul. 2005); **BD86** Giżyn, near Bojanowo, 1, P (19 Nov. 2012); **CC20** Krostowo, near Białośliwie, 1, C (9 Sept. 2011); **CC21** Bąkowo, near Wyrzysk, 1, N (9 Sept. 2011); **CC21** Osiek nad Notecią, near Wyrzysk, +, N (8 Sept. 2011); **CC30** Szamocin, 1, D (8 Sept. 2013); **CC32** Stołęzyn, near Wapno, 1, P (3 Sept. 2005); **CC40** Lipiny, near Margonin, +, P (21 Sept. 2013); **CC40** Dziewoklucz, near Budzyń, 1, L (2 Sept. 2005); **CC40** Margońska Wieś, near Margonin, 1, P (21 Sept. 2013); **CC41** Gołańcz, +, D (31 Aug. 2005); **CC41** Jeziorki, near Gołańcz, +, P (30 Aug. 2005); **CC41** Gołańcz, +, N (30 Jul. 2015); **CC50** Dąbkowice, near Wągrowiec, +, L (2 Sept. 2005); **CC50** Sarbka, near Wągrowiec, +, P (2 Sept. 2005); **CC51** Siedleczo, near Wągrowiec, 1, P (3 Sept. 2005); **CC51** Werkowo, near Wągrowiec, +, P (30 Aug. 2005); **CC60** Czekanowo, near Wągrowiec, +, P (29 Aug. 2005); **CC61** Rąbczyn, near Wągrowiec, +, P (29 Aug. 2005); **CC61** Ruda Koźlanka, near Mieścisko, 1, P (23 Aug. 2005); **CC61** Sarbia, near Mieścisko, +, S (23 Aug. 2005); **CC61** Zbietka, near Mieścisko, +, Pa (23 Aug. 2005); **CC62** Mirowice, near Mieścisko, 1, N (30 Aug. 2005); **CC70** Rościnnno, near Skoki, +, S (24 Sept. 2014); **CC70** Skoki, +, D (24 Sept. 2014); **CC71** Popowo Kościelne, near Mieścisko, +, N (30 Jul. 2015); **CC72** Gorzuchowo, near Kłecko, 2, P (21 Aug. 2005); **CC72** Jaworówko, near Mieścisko, 1, P (23 Aug. 2005); **CC72** Miesleszyn, +, P (25 Aug. 2005); **CC72** Miłosławice, near Mieścisko, +, S (22 Aug. 2005); **CC72** Świniary Dolne, near Kłecko, +, S (21 Aug. 2005); **CC72** Ułanowo, near Kłecko, 2, P (22 Aug. 2005); **CC72** Wilkowyja, near Kłecko, +, P (21 Aug. 2005); **CC73** Popowo Tomkowe, near Miesleszyn, 2, P (25 Aug. 2005); **CC80** Komorowo, near Kłecko, 2, P (18 Aug. 2005); **CC80** Stęszewko, near Pobiedziska, 2, P (16 Aug. 2005); **CC81** Turostowo, near Kiszkowo, 2, P (16 Aug. 2005); **CC83** Goślinowo, near Gniezno, +, S (12 Jun. 2008); **CC84** Strzyżewo Smykowe, near Gniezno, 1, P (8 Sept. 2013); **CC86** Goryszewo, near Mogilno, +, P (7 Sept. 2013); **CC89** Murowana Goślina, 2, N (16 Sept. 2007); **CC90** Promienko, near Pobiedziska, 2, P (12 Aug. 2005); **CC90** Jerzykowo, near Pobiedziska, 1, N (14 Aug. 2008); **CC90** Uzarzewo-Huby, near Swarzędz, 2, P (14 Aug. 2008); **CC91** Gołunin, near Pobiedziska, 1, P (11 Aug. 2005); **CC91**

Jerzyn, near Pobiedziska, 2, P (13 Aug. 2005); **CC91** Wójtostwo, near Pobiedziska, 2, P (11 Aug. 2005); **CC96** Orchowo, +, P (6 Sept. 2013); **CC96** Siedluchno, near Orchowo, +, P (8 Sept. 2013); **CD00** Sokolniki Gwiazdowskie, near Swarzędz, 1, P (14 Aug. 2008); **CD01** Glinka Duchowna, near Kostrzyn, 2, Ł (7 Aug. 2005); **CD03** Sobiesierne, near Września, +, P (4 Sept. 2013); **CD05** Polanowo, near Powidz, 2, Ł (13 Jun. 2008); **CD07** Alinowo, near Kleczew, 1, N (13 Oct. 2007); **CD70** Stogi, near Kleczew, 1, P (8 Oct. 2007); **CD20** Bnin, part of Kórnik, 1, N (12 Jun. 2005); **CD21** Środa Wielkopolska, 1, D (20 Jul. 2005); **CD22** Starkówiec, near Środa Wielkopolska, 1, P (24 Jul. 2005); **CD28** Konin, +, L (23 Jun. 2012); **CD51** Cerekwica, near Jaraczewo, 3, P (13 Jun. 2005); **CD51** Łowęcice, near Jaraczewo, 1, K (13 Jun. 2005); **CD55** Józefów, near Chocz, 1, P (1 Aug. 2005); **CD60** Pogorzela, 2, N (4 Aug. 2005); **CD63** Izbiczno, near Dobrzyca, 2, P (13 Jul. 2005); **CD63** Karminiec, near Dobrzyca, 2, P (13 Jul. 2005); **CD62** Koźmin, 1, P (30 Sept. 2011); **CD62** Koźmin, 2, N (8 Sept. 2009); **CD63** Trzebin, near Dobrzyca, 2, P (13 Jul. 2005); **CD63** Wilczyniec, near Jarocin, 1, P (13 Jul. 2005); **CD70** Łusie, near Dąbie, 1, P (28 Jul. 2005); **CD68** Zakrzyn, near Lisków, +, P (25 Sept. 2007); **CD72** Henryków, near Rozdrażew, 2, P (5 Oct. 2005); **CD73** Koźminiec, near Dobrzyca, 1, P (22 Oct. 2005); **CD74** Szczurowice, near Raszków, 1, P (18 Jul. 2005); **CD76** Kalisz, 2, D (3 Sept. 2013); **CD77** Opatówek, 1, C (23 Sept. 2007); **CD78** Koźminek, 1, N (22 Sept. 2007); **CD78** Nowy Karolew, near Koźminek, 1, P (22 Sept. 2007); **CD83** Niemojewice, near Raszków, 3, P (18 Jul. 2005); **CD93** Odolanów, 1, N (17 Sept. 2007); **CE06** Chlewo, near Grabów nad Prosną, 2, P (20 Sept. 2007); **CE16** Mikorzyn, near Kępno, 1, Pa (21 Nov. 2012); **CE92** Sulmierzyce, +, D (28 Jul. 2010); **DD10** Kiejsze, near Babiak, +, P (27 Jul. 2012); **DD10** Lipiny, near Sompolno, 2, P (23 Jul. 2012); **DD10** Przystronie, near Sompolno, 1, N (15 Jun. 2008); **DD12** Kłodawa, 1, N (26 Jul. 2012); **DD20** Koło, +, D (26 Jun. 2011); **DD20** Osiek Wielki, near Osiek Mały, 2, P (2 Aug. 2012); **DD21** Zawady Nowe, near Olszówka, 2, P (25 Jul. 2012); **DD30** Daniszew, near Kościelec, 2, P (27 Sept. 2007); **DD31** Dąbie, 1, N (29 Jul. 2012); **DD31** Szczepanów, near Olszówka, 1, S (28 Jul. 2012); **DD31** Dąbie, 1, P (29 Jul. 2012); **DD31** Grabina, near Dąbie, 1, L (28 Jul. 2012); **DD31** Sobótka, near Dąbie, 1, P (29 Jul. 2012); **DD50** Miłowice, near Dobra, 1, N (26 Sept. 2007).

Lower Silesia Province: **BD75** Łagiszyn, near Góra Śląska, 2, L (5 Jul. 2005); **BD76** Czernina, 2, C (4 Oct. 2005); **BD76** Sułków, near Góra Śląska, 1, P (4 Jul. 2005); **BD81** Gaworzyce, 1, C (28 Aug.

2009); **BD81** Śrem, near Gaworzyce, 1, P (29 Aug. 2009); **BD82** Biechów, near Głogów, 1, C (28 Aug. 2009); **BD82** Żukowice, 2, C, (10 Sept. 2008); **BD85** Wroniniec, near Niechlów, 1, N, (29 Jul. 2012); **BD85** Żuchlów, near Niechlów, 2, L (2 Jul. 2005); **BD85** Rogów Górowski, near Góra Śląska, 1, P (2 Jul. 2005); **BD86** Grabowno, near Góra Śląska, 1, D (1 Jul. 2005); **BD86** Kruszyniec, +, P (4 Jul. 2005); **BD86** Sułów Wielki, near Wąsosz, 1, N (4 Sept. 2009); **BD92** Kaźmierzów, near Polkowice, +, N (26 Aug. 2009); **BD89** Komorniki, near Polkowice, +, P (26 Aug. 2009); **BD93** Świnino, near Grębocice, +, L (31 Aug. 2009); **BD94** Kłębów, near Rudna, +, C (1 Sept. 2009); **BD95** Kurów Mały, near Jerzmanowa, +, N (31 Aug. 2009); **BD96** Psary, near Jemielno, +, C (3 Sept. 2009); **BD97** Płoski, near Wąsosz, +, P (3 Sept. 2009); **BD97** Wąsowska, near Wąsosz, 1, P (1 Jul. 2005); **BD98** Korzeńsko, near Żmigród, 1, P (30 Jun. 2005); **BD98** Radziądz, near Żmigród, 1, K (27 Jul. 2010); **BE05** Tymowa, near Ścinawa, +, K (4 Sept. 2009); **BE06** Baszyn, near Wińsko, 1, K (7 Sept. 2009); **BE06** Kozowo, near Wińsko, +, L (3 Sept. 2009); **BE06** Piskorzyna, near Wińsko, +, C (3 Sept. 2009); **BE06** Smogorzów Wielki, near Wińsko, +, K (7 Sept. 2009); **BE07** Barkowo, near Żmigród, +, K (7 Sept. 2009); **BE07** Barkowo, near Żmigród, 1, P (7 Sept. 2009); **BE08** Prusice, 1, C (8 Sept. 2009); **BE17** Górowo, near Prusice, 1, P (26 Jun. 2010); **BE17** Pełczyn, near Wołów, +, K (6 Sept. 2009); **BE28** Lubnów, near Oborniki Śląskie, 1, S (27 Jun. 2010); **BE28** Rościstawice, near Oborniki Śląskie, +, C (27 Jun. 2010); **CD92** Wrocławice, near Milicz, 1, L (19 Jun. 2005); **CD92** Wziąchowo Małe, near Milicz, 1, S (18 Jun. 2005); **CE00** Postolin, near Milicz, +, S (27 Jul. 2010); **CE11** Brzostowo, near Krośnice, 1, S (30 Jul. 2010); **CE11** Bukowice, near Krośnice, 1, N (22 Jul. 2010); **CE11** Grabowo Wielkie, near Twardogóra, +, C (22 Jul. 2010); **CE12** Kuźnia Goszczyńska, near Twardogóra, 1, P (4 Aug. 2010); **CE13** Międzybórz, 1, N (8 Aug. 2010); **CE21** Łuczyna, near Dobroszyce, +, D (2 Jul. 2010); **CE22** Brzezinka, near Oleśnica, 1, K (5 Jul. 2010); **CE23** Szczodrów, near Syców, 1, K (7 Jul. 2010); **EB05** Górzyn, near Rudna, +, P (4 Sept. 2009).

Kujawy-Pomerania Province: **CC31** Dobieszewo, near Kcynia, 1, P (31 Aug. 2005); **CC32** Miąskowo, near Kcynia, 1, P (31 Aug. 2005); **CC37** Solec Kujawski, 1, D (19 Aug. 2008); **CC42** Dobieszewo, near Kcynia, +, P (4 Oct. 2014); **CC44** Jabłówko, near Łabiszyn, 2, C (15 Sept. 2013); **CC46** Jeżewo, near Łabiszyn, +, Pa (13 Sept. 2013); **C54** Bożejewice, near Żnin, 1, P (26 Aug. 2005); **CC55** Barcin, +, D (12 Sept. 2013); **CC55** Pturek, near Barcin, +, P (12 Sept. 2013); **CC55** Wolice, near Barcin, 1, P (13 Sept. 2013); **CC56**

- Pakość, 1, P (10 Oct. 2007); **CC56** Sadłogoszcz, near Barcin, +, N (13 Sept. 2013); **CC59** Szpital, near Gniewkowo, 2, P (18 Jul. 2008); **CC62** Janowiec Wielkopolski, 1, D (25 Aug. 2005); **CC63** Skórki, near Rogowo, 2, P (25 Aug. 2005); **CC63** Wiewiórczyn, near Rogowo, 1, S (25 Aug. 2005); **CC63** Zrazim, near Janowiec Wielkopolski, +, N (25 Aug. 2005); **CC64** Łaziska, near Rogowo, 2, L (26 Aug. 2005); **CC65** Pralinek, near Dąbrowa, 1, P (10 Sept. 2013); **CC67** Mierucin, near Dąbrowa, +, P (7 Sept. 2013); **CC73** Recz, near Rogowo, 2, P (25 Aug. 2005); **CC75** Chabsko, near Mogilno, 1, P (7 Sept. 2013); **CC75** Józefowo, near Mogilno, 1, D (8 Sept. 2013); **CC76** Strzelce Budowanie, near Mogilno, 1, P (11 Oct. 2008); **CC85** Wasilewko, near Mogilno, 1, P (7 Sept. 2013); **CC89** Kobylnica, near Kruszwica, 1, P (14 Jul. 2008); **CC99** Rudzik, near Piotrków Kujawski, 1, P (14 Jun. 2008); **DC01** Izbica Kujawska, +, N (16 Jun. 2008); **DC01** Tymeń, near Izbica Kujawska, 1, P (15 Jun. 2008); **DC51** Ciechocinek, 1, N (15 Jul. 2008); **DC51** Nowy Ciechocinek, near Aleksandrów Kujawski, 1, S (15 Jul. 2008); **DC51** Raciążek, 2, P (15 Jul. 2008); **DC61** Kamieniec, near Koneck, 2, P (16 Jul. 2008); **DC71** Bachorka, near Bądkowo, 1, L (17 Jun. 2008); **DC71** Topółka, 1, N (16 Jun. 2008); **DC80** Czarnocice, near Bytyń, 1, N (14 Jul. 2008); **DC81** Kąkowa Wola, near Brześć Kujawski, 1, P (17 Jun. 2008); **DD02** Łanięta, near Chodecz, 1, P (17 Jun. 2008).
- Łódź Province: **CD90** Sieradz, 3, D (21 Sept. 2006); **DD20** Zagórze, near Dąbrowice, 1, P (1 Aug. 2012); **DD32** Bugaj, near Grabów, 2, P (30 Jul. 2012); **DD32** Leszno, near Grabów, 1, P (29 Jul. 2012); **DD33** Kobyłe, near Grabów, 1, P (30 Jul. 2012); **DD41** Dąbrowa, near Uniejów, 1, P (29 Jul. 2012); **DD41** Wieleń, near Uniejów, 1, D (29 Jul. 2012); **DD70** Glinno, near Warta, +, D (21 Nov. 2012); **DD70** Warta, 1, D (22 Sept. 2007); **EB05** Górzyn, near Rudna, +, P (4 Sept. 2009).
- Rubus camptostachys** G. Braun. (leg. A. Czarna, det. J. Zieliński)
Wielkopolska Province: **CD58** Kotwasicze, near Malanów, 1, S (24 Sept. 2007).
Lower Silesia Province: **CE02** Kotlarka, near Krośnice, +, P (31 Jul. 2010); **CE11** Bukowice, near Krośnice, Milicz, +, N (22 Jul. 2010).
- Rubus capitulatus** Utsch (leg. A. Czarna, det. J. Zieliński)
Lubuskie Province: **AC76** Bogdaniec, 1, D (27 Oct. 2011); **AD47** Gronów, near Dąbie, +, L (30 Aug. 2008); **AD69** Studzieniec, near Kożuchów, +, C (30 Aug. 2008); **BD89** Płaczkowo, near Jutrosin, 1, P (3 Aug. 2005).
Lower Silesia Province: **BE28** Głędzinów, near Oborniki Śląskie, 1, D (27 Jun. 2010); **CD92** Kołęda, near Milicz, 2, P (16 Jun. 2005); **CE00** Świętoszyn, near Milicz: 1, L (21 Jun. 2005); **CE01** Wąbice, near Krośnice, 3, P (29 Jul. 2010); **CE11** Miłochowice, near Milicz, +, S (25 Jul. 2010); **CE13** Gawrony, near Międzybórz, +, S (8 Aug. 2010); **CE13** Międzybórz, +, N (8 Aug. 2010).
Wielkopolska Province: **CD30** Zaniemyśl, 2, S (12 Jun. 2005); **CD50** Ostrowieczno, near Dolsk, 1, S (14 Jun. 2005);
- Rubus chaerophylloides** Sprib. (leg. A. Czarna, det. J. Zieliński)
Wielkopolska Province: **BC49** Budzyń, 1, D (18 Sept. 2005).
- Rubus corylifolius** Sm. agg. (leg. A. Czarna, det. J. Zieliński)
Lubuskie Province: **AC94** Ośno Lubuskie, +, N (12 Sept. 2006); **AC95** Smogóry, near Ośno Lubuskie, +, C (25 Sept. 2006); **AD19** Kupienino, near Świebodzin, 1, P (30 Jun. 2011); **AD26** Czetowice, near Krosno Odrzańskie, 1, S (24 Sept. 2006); **AD53** Gubinek, near Gubin, 1, N (21 Aug. 2008); **AD63** Luboszyce, near Gubin, +, L (20 Sept. 2008); **AD64** Jałowice, near Brody, +, N (18 Sept. 2008); **AD64** Raszyn, near Lubsko, +, D (15 Sept. 2008); **AD64** Ziębikowo, near Lubsko, +, P (15 Sept. 2008); **AD65** Górzyn, near Lubsko, 3, P (5 Sept. 2008); **AD65** Lubsko, +, D (15 Sept. 2008); **AD67** Koźła, near Świdnica, +, N (27 Aug. 2009); **AD67** Podgórzycze, near Nowogród Bobrzański, +, K (31 Aug. 2008); **AD67** Sterków, near Nowogród Bobrzański, +, S (30 Aug. 2008); **AD74** Gęzawa, near Tuplice, +, S (16 Sept. 2008); **AD77** Dybów, near Żagań, +, L (14 Aug. 2009); **AD77** Przybymierz, near Nowogród Bobrzański, +, S (18 Aug. 2009); **AD78** Marcinów, near Brzeźnica, +, C (18 Aug. 2009); **AD78** Wojeławice, near Brzeźnica, +, P (17 Aug. 2009); **AD79** Kożuchów, +, D (28 Aug. 2010); **AD85** Górka, near Lipinki Łużyckie, +, P (24 Sept. 2008); **AD86** Żary, +, K (24 Sept. 2008); **AD94** Chudzowice, near Trzebień, +, S (16 Aug. 2009); **BC52** Drezdenko, +, D (12 Nov. 2012); **BC56** Jędrzejewo, +, P (17 Jul. 2006); **BD62** Krażkowo, near Sława, 1, D (17 Oct. 2011); **BD81** Nowa Jabłona, near Niegosławice, +, L (22 Aug. 2009).
Wielkopolska Province: **BC26** Pokrzywno, near Trzcianka, 1, L (2 Sept. 2011); **BC36** Teresin, near Trzcianka, 1, N (3 Sept. 2011); **BC38** Kamionka, near Chodzież, 1, L (19 Sept. 2005); **BC49** Pietronki, near Chodzież, 2, S (4 Sept. 2005); **BC57** Połajewo, 1, C (22 Sept. 2011); **BC74** Chrzypsko Wielkie, 1, P (6 Aug. 2006); **BD03** Lipka Mała, near Nowy Tomyśl, 1, P (5 Sept. 2006); **BD04** Chraplewo, near Kuślin, 1, P (3 Sept. 2006); **BD40** Trzebiechów, 1, D (1 Oct. 2011); **BD50** Łazy, near Zabór, +, S (25 Aug. 2008); **BD50** Za-

bór, 2, C (25 Aug. 2008); **BD55** Bronikowo, near Śmigiel, 1, P (31 Jul. 2006); **BD98** Szymanowo, near Rawicz, +, Ł (29 Jun. 2005); **CC72** Jaworówko, near Mieścisko, 1, P (23 Aug. 2005); **CD46** Wielołęka, near Grodziec, +, N (29 Sept. 2007); **CD50** Ostrowieczno, near Dolsk, 2, S (14 Jun. 2005); **CD53** Wysogotówek, near Kotlin, 2, P (24 Jun. 2008); **CD68** Kuźnica, near Ceków, 1, S (25 Sept. 2007); **CD68** Poroże, near Malanów, Turek County, 1, S (25 Sept. 2007); **CD77** Opatówek, 2, C (23 Sept. 2007); **CD98** Joanka, near Szczytniki, 1, P (19 Sept. 2007); **CE06** Biernacice, near Grabów nad Prosną, 2, N (20 Sept. 2007); **CE07** Grabów nad Prosną, 1, N (20 Sept. 2007); **CE16** Tokarzew, near Doruchów, +, P (20 Nov. 2012); **CE34** Pisarzowice, near Kobyla Góra, +, N (8 Jul 2010); **DD10** Babiak, 1, S (15 Jun. 2008); **DD10** Borecznia Wielka, near Osiek Mały, 1, S (23 Jul. 2012); **DD30** Daniszew, near Kościelec, +, P (27 Sept. 2007); **DD31** Grabina, near Dąbie, 1, L (28 Jul. 2012); **DD50** Miłowice, near Dobra, 1, N (26 Sept. 2007).

Lower Silesia Province: **BD92** Gaiki, near Jerzmanowa, +, L (28 Aug. 2009); **BD92** Maniów, near Jerzmanowa, +, S (28 Aug. 2009); **BD93** Duża Wólka, near Grębocice, +, S (31 Aug. 2009); **BD95** Kurów Mały, near Jerzmanowa, 1, N (31 Aug. 2009); **BD96** Psary, near Jemięlna, +, C (3 Sept. 2009); **BE08** Bychowo, near Żmigród, +, D (7 Sept. 2009); **BE17** Górowo, near Prusice, +, P (26 Jun. 2010); **BE28** Oborniki Śląskie, 2, D (17 Aug. 2009); **CE00** Kaszowo, near Milicz, 2, S (25 Jul. 2010); **CE00** Postolin, near Milicz, +, S (27 Jul. 2010); **CE00** Świętoszyn, near Milicz, 1, L (21 Jun. 2005); **CE01** Dąbrowa, near Krośnice, +, N (29 Jul. 2010); **CE01** Duchowa, near Milicz, +, S (29 Jul. 2010); **CE01** Wąbice, near Krośnice, 2, S (29 Jul. 2010); **CE01** Wąbice, near Krośnice, +, P (29 Jul. 2010); **CE01** Wierzchowice, near Krośnice, +, P (29 Jul. 2010); **CE02** Kuźnica Czeszycka, near Krośnice, 1, K (31 Jul. 2010); **CE02** Luboradzów, near Krośnice, 1, P (31 Jul. 2010); **CE21** Łuczyna, near Dobroszyce, +, D (2 Jul. 2010); **CE34** Dalborowice, near Dziadowa Kłoda, +, N (8 Jul. 2010).

Łódź Province: **CD26** Wieruszów, +, N (10 Aug. 2010); **CE34** Pisarzowice, near Kobyla Góra, +, N (8 Jul 2010); **DD10** Babiak, 1, S (15 Jun. 2008); **DD10** Borecznia Wielka, near Osiek Mały, 1, S (23 Jul. 2012); **DD30** Daniszew, near Kościelec, +, P (27 Sept. 2007); **DD31** Grabina, near Dąbie, 1, L (28 Jul. 2012); **DD50** Miłowice, near Dobra, 1, N (26 Sept. 2007).

Rubus crispomarginatus Holub (leg. A. Czarna, det. J. Zieliński)

Lubuskie Province: **BD41** Bełcze, near Bojadła, +, L (13 Sept. 2008).

Rubus divaricatus P.J. Müll. (leg. A. Czarna, det. J. Zieliński)

Lubuskie Province: **AD78** Przyłaski, near Brzeźnica, 1, C (17 Aug. 2009).

Rubus fabrimontanus (Sprib.) Sprib. (leg. A. Czarna, det. J. Zieliński)

Lubuskie Province: **AD63** Węgliny, near Lubin, +, S (20 Sept. 2008); **AD64** Dąbrowa, near Lubsko, +, L (15 Sept. 2008); **AD64** Grabków, near Lubsko, +, L (15 Sept. 2008); **AD68** Urzuty, near Nowogród Bobrzański, 1, C (17 Aug. 2009); **AD74** Dłużek, near Lubsko, +, C (16 Sept. 2008); **AD84** Tuplice, +, N (16 Sept. 2008); **AD87** Olszyniec, near Żary, +, C (24 Sept. 2008); **AD94** Chudzowice, near Trzebiel, +, S (16 Aug. 2009); **BD71** Siedlisko, +, C (10 Sept. 2008).

Wielkopolska Province: **BD76** Jabłonna, near Rydzyna, 3, L (4 Jul. 2005); **CC83** Goślinowo, near Gniezno, 1, S (12 Jun. 2008); **CD19** Szarłatów, near Osiek Mały, +, L (23 Jun. 2012); **CD78** Nowy Karolew, near Koźminek, 2, P (22 Sept. 2007); **CE25** Przybyszów, near Kępno, 1, S (9 Aug. 2010); **DD10** Babiak, near Babiak, 2, S (15 Jun. 2008); **DD31** Szczepanów, near Olszówka, 1, S (28 Jul. 2012).

Łódź Province: **CD26** Wieruszów, +, N (10 Aug. 2010); **DD22** Kępina, near Grabów, +, L (30 Jul. 2012); **DD32** Bugaj, near Grabów, 1, P (30 Jul. 2012); **DD71** Pęczniew, +, L (21 Nov. 2012).

Lower Silesia Province: **CE00** Postolin, near Milicz, +, S (27 Jul. 2010); **CE01** Dąbrowa, near Krośnice, +, N (29 Jul. 2010); **CE01** Krośnice, +, Pa (29 Jul. 2010).

Rubus grabowskii Weihe ex Günther, Grab. & Wimm. (leg. A. Czarna, det. J. Zieliński)

Lubuskie Province: **AD19** Przełazy, near Lubrza, 2, C (22 Sept. 2006); **AD35** Skórzyn, near Maszewo, +, S (24 Sept. 2006); **AD48** Wysokie, near Czerwińsk, +, P (18 Sept. 2009); **AD67** Podgórzycze, near Nowogród Bobrzański, +, K (31 Aug. 2008); **AD86** Kadłubia, near Żary, +, P (24 Sept. 2008); **BD51** Bojadła, +, C (13 Sept. 2008); **BD60** Bobrowniczki, near Otyń, Nowa Sól County, +, C (25 Aug. 2008); **BD80** Popęszyce, near Nowe Miasteczko, +, Pa (21 Aug. 2009).

Wielkopolska Province: **BD59** Dolsk, 1, P (14 Jun. 2005); **BD98** Szymanowo, near Rawicz, 1, Ł (29 Jun. 2005).

Lower Silesia Province: **BD71** Czerna, near Żukowice, +, P (10 Sept. 2008); **BE28** Lubnów, near Oborniki Śląskie, +, S (27 Jun. 2010).

Kujawy-Pomerania Province: **CC65** Mokre, near Dąbrowa, +, P (20 Jun. 2008). **DD00** Zielonka, near Wierzbinek, 1, L (16 Jun. 2008).

Rubus gracilis J. Presl & C. Presl (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AD35** Korczyców, near Maszewo, 3, L (25 Sept. 2006); **AD36** Bytnica, 1, D (24 Sept. 2006); **BD89** Międzyzlesie, near Niegosławice, +, C (21 Aug. 2009); **CD91** Pakosławsko, near Cieszków, 1, P (17 Jun. 2005).

Wielkopolska Province: **AD74** Grabów, near Tuplice, +, N (16 Sept. 2008); **BC79** Stary Łoskot, +, S (27 Aug. 2005); **BC99** Czerwonak, 1, D (13 Aug. 2008); **CC94** Cwierdzin, near Witkowo, +, P (12 Jun. 2008); **CC96** Anastazewo, near Powidz, +, L (6 Sept. 2013); **CD05** Powidz, +, N (13 Jun. 2008); **CD50** Ostrowieczno, near Dolsk, 2, S (4 Jun. 2005); **CD72** Henryków, near Rozdrażew, 1, P (5 Oct. 2005); **CD81** Zduny, 1, D (18 Jun. 2005); **CE03** Boników, near Odolanów, 1, S (1 Aug. 2010); **DD10** Przystronie, near Sompolno, 2, N (15 Jun. 2008); **DD31** Szczepanów, near Olszówka, +, S (28 Jul. 2012).

Lower Silesia Province: **BE17** Godzięcin, near Brzeg Dolny, +, C (26 Jun. 2010); **CC92** Joachimówka, near Milicz, +, Ł (31 Jul. 2010); **CD96** Ołobok, near Sieroszowice, +, N (19 Sept. 2007); **CE11** Bukowice, near Krośnice, +, N (22 Jul. 2010); **CE11** Pierstnica, near Krośnice, +, N (30 Jul. 2010); **CE13** Ligota Rybińska, near Międzybórz, +, P (8 Aug. 2010).

Rubus hirtus Waldst. Kit. agg. (*leg.* A. Czarna, *det.* J. Zieliński)

Wielkopolska Province: **BC35** Trzcianka, 1, D (2 Sept. 2011).

Lower Silesia Province: **BD98** Radziądz, near Żmigród, +, S (27 Jul. 2010).

Rubus ×idaeoides Ruthe (*leg.* A. Czarna, *det.* J. Zieliński)

Wielkopolska Province: **BC45** Runowo, near Trzcianka, +, P (3 Sept. 2011).

Rubus idaeus L. (*leg. det.* A. Czarna)

Lubuskie Province: **AC18** Żelechów, near Łągów, +, C (8 Oct. 2009); **AC59** Łęcznica, near Stare Kurowo, +, P (12 Nov. 2012); **AC76** Jeniec, near Bogdaniec, +, D (28 Oct. 2011); **AC77** Bolemin, near Deszczno, +, L (20 Sept. 2006); **AC77** Łagodzin, near Deszczno, 1, S (21 Sept. 2006); **AC77** Prądociń, near Deszczno, 2, D (21 Sept. 2006); **AC84** Ownice, near Słońsk, +, C (20 Sept. 2006); **AC84** Słońsk, 2, C (13 Sept. 2006); **AC86** Łukomin, near Krzeszyce, 3, L (10 Sept. 2006); **AC89** Skwierzyna, +, P (15 Aug. 2006); **AC96** Ostrów, near Sulęcín, +, S (12 Oct. 2009); **AC96** Sulęcín, +, N (11 Sept. 2006); **AD09** Szumiąca, near Międzyrzecz, +, C (9 Sept. 2006); **AD14** Maczków, near Cybinka, 1, D (26 Sept. 2006); **AD15** Gądków Mały, near Torzym, 1, S (26 Sept. 2006); **AD15** Gądków Mały, near Torzym, 1,

L (26 Sept. 2006); **AD19** Wityń, near Świebodzin, +, P (30 Jun. 2011); **AD24** Cybinka, +, L (25 Sept. 2006); **AD27** Grabin, near Bytnica, +, S (20 Sept. 2009); **AD28** Niesulice, near Skąpe, +, S (23 Sept. 2006); **AD34** Rybaki, near Maszewo, 1, L (25 Sept. 2006); **AD35** Lubogoszcz, near Maszewo, +, L (24 Sept. 2006); **AD35** Radomiczko, near Maszewo, 2, L (24 Sept. 2006); **AD38** Pałck, near Skąpe, +, C (30 Sept. 2011); **AD39** Kalsk, near Sulechów, +, Pa (29 Sept. 2011); **AD39** Kije, near Sulechów, 1, C (30 Sept. 2011); **AD45** Dachów, near Bobrowice, +, S (21 Sept. 2008); **AD45** Retno, near Krosno Odrzańskie, 1, S (20 Sept. 2009); **AD45** Wężyska, near Krosno Odrzańskie, 2, C (20 Sept. 2009); **AD47** Gronów, near Dąbie, +, L (30 Aug. 2008); **AD47** Nietków, near Czerwińsk, +, L (18 Sept. 2009); **AD49** Jany, near Zielona Góra, +, L (25 Aug. 2008); **AD53** Gubin, +, D (3 Aug. 2013); **AD53** Gubin, 1, K (31 Jul. 2024); **AD56** Tarnawa Krośnieńska, near Bobrowice, 1, L (30 Aug. 2008); **AD58** Świdnica, +, C (27 Aug. 2008); **AD63** Koło, near Brody, +, K (20 Sept. 2008); **AD63** Stargard Gubiński, near Gubin, +, C (18 Sept. 2008); **AD64** Biecz, near Brody, +, K (20 Sept. 2008); **AD64** Dąbrowa, near Lubsko, +, L (15 Sept. 2008); **AD64** Grabków, near Lubsko, +, L (15 Sept. 2008); **AD65** Chocicz, near Lubsko, +, K (21 Sept. 2008); **AD66** Łagoda, near Nowogród Bobrzański, +, L (30 Aug. 2008); **AD66** Wysoka, near Nowogród Bobrzański, +, L (30 Aug. 2008); **AD68** Urzuty, near Nowogród Bobrzański, +, C (17 Aug. 2009); **AD74** Bronice, near Jasień, +, S (16 Sept. 2008); **AD77** Gorzupia, near Żary, +, L (14 Sept. 2008); **AD77** Przybymierz, near Nowogród Bobrzański, +, C (18 Aug. 2009); **AD78** Miodnica, near Żagań, +, S (14 Aug. 2009); **AD78** Przyłaski, near Brzeźnica, +, C (17 Aug. 2009); **AD78** Skibice, near Nowogród Bobrzański, +, L (18 Aug. 2009); **AD78** Wichów, near Brzeźnica, +, C (17 Aug. 2009); **AD79** Kożuchów, +, D (28 Aug. 2010); **AD79** Stypułów, near Kożuchów, 1, C (14 Sept. 2008); **D84** Matuszowice, near Tuplice, +, N (16 Sept. 2008); **AD84** Tuplice, +, N (16 Sept. 2008); **AD85** Czarna, near Tuplice, +, L (16 Sept. 2008); **AD85** Pietrzyków, near Lipinki Łużyckie, +, C (16 Sept. 2008); **AD89** Borów, near Nowe Miasteczko, 2, C (9 Sept. 2008); **AD95** Kałki, near Trzebiel, +, S (16 Aug. 2009); **BC01** Trzciel, +, L (6 Sept. 2006); **BC50** Trzebiczy, near Drezdenko, 1, L (11 Aug. 2006); **BD41** Bełcze, near Bojadła, +, L (13 Sept. 2008); **BD50** Czarna, near Zabór, +, L (25 Aug. 2008); **BD50** Zabór, +, C (25 Aug. 2008); **BD60** Bobrowniczki, near Otyń, +, C (25 Aug. 2008); **BD60** Niedoradz, near Otyń, 2, C (25 Aug. 2008); **BD71** Wierzbice, near Bytom Odrzański, +, P (18 Nov. 2012); **BD73** Krzepielów, near Sława, 1, C (7 Jul. 2005); **BD80** Mycielin,

near Niegosławice, 2, Ł (21 Aug. 2009); **BD80** Popęszyce, near Nowe Miasteczko, +, Pa (21 Aug. 2009); **BD81** Zimna Brzeźnica, near Niegosławice, +, N (22 Aug. 2009); **BD81** Zimna Brzeźnica, near Niegosławice, 1, D (22 Aug. 2009); **BD89** Międzylesie, near Niegosławice, +, C (21 Aug. 2009).

Wielkopolska Province: **BC04** Wąsowo, near Kuślin, +, Pa (13 Oct. 2009); **BC26** Kępa, near Trzcianka, +, S (2 Sept. 2011); **BC26** Kłoda, near Szydłowo, +, S (6 Aug. 2011); **BC26** Łomnica, near Trzcianka, 1, S (2 Sept. 2011); **BC26** Łomnica-Młyn, near Trzcianka, +, L (2 Sept. 2011); **BC26** Pokrzywno, near Trzcianka, 1, L (2 Sept. 2011); **BC26** Wrząca, near Trzcianka, +, N (1 Aug. 2011); **BC27** Piła-Motyłowo, near Piła, 2, N (7 Aug. 2011); **BC28** Dziembowo, near Kaczory, +, L (23 Aug. 2010); **BC28** Morzewo, near Kaczory, +, Ł (23 Aug. 2010); **BC29** Rządkowo, near Kaczory, +, C (25 Aug. 2010); **BC35** Rudka, near Trzcianka, +, S (3 Sept. 2011); **BC35** Usypisko, near Wieleń, +, P (3 Sept. 2011); **BC36** Romanowo Górne, near Czarnków, +, L (16 Jul. 2006); **BC37** Nowa Wieś Ujska, near Ujście, +, P (5 Sept. 2013); **BC37** Węglewo, near Ujście, +, S (29 Sept. 2014); **BC38** Kamionka, near Chodzież, 1, L (19 Sept. 2005); **BC38** Kamionka, near Chodzież, +, L (19 Sept. 2005); **BC39** Józefowice, near Szamocin, 1, L (7 Sept. 2013); **BC39** Zacharyn, near Chodzież, 1, S (9 Sept. 2005); **BC42** Krzyż Wielkopolski, +, C (4 Jun. 2007); **BC43** Herbutowo, near Wieleń, +, N (5 Sept. 2011); **BC45** Średnica, near Czarnków, +, S (3 Sept. 2011); **BC45** Runowo, near Trzcianka, 1, P (3 Sept. 2011); **BC46** Paliszewo, near Czarnków, +, L (16 Jul. 2006); **BC46** Rado-linek, near Czarnków, +, D (4 Sept. 2011); **BC46** Romanowo Dolne, near Czarnków, +, L (16 Jul. 2006); **BC46** Śmieszkowo, near Czarnków, +, S (16 Jul. 2006); **BC47** Gębice, near Czarnków, +, L (15 Jul. 2006); **BC47** Gębiczyn, near Czarnków, +, L (6 Sept. 2013); **BC48** Grabówka, near Budzyń, +, P (6 Sept. 2013); **BC48** Podonin, near Chodzież, +, C (7 Sept. 2013); **BC48** Stróżewice, near Chodzież, +, P (6 Sept. 2013); **BC49** Pietronki, near Chodzież, 1, S (4 Sept. 2005); **BC49** Podstolice, near Budzyń, +, C (7 Sept. 2013); **BC54** Wrzeszczyna, near Wieleń, +, D (24 Jul. 2006); **BC56** Białężyn, near Czarnków, 2, P (17 Jul. 2006); **BC57** Piotrowo, near Ryczywół, +, S (22 Sept. 2011); **BC57** Przybychowo, near Połajewo, +, P (22 Sept. 2011); **BC58** Tłukawy, near Ryczywół, 2, S (16 Sept. 2011); **BC58** Wyszynki, near Budzyń, 1, S (16 Sept. 2011); **BC59** Drażki, near Budzyń, +, S (28 Sept. 2014); **BC59** Nowe Brzeźno, near Budzyń, +, S (2 Sept. 2005); **BC60** Goszczanowice, near Drezdenko, +, C (5 Oct. 2009); **BC61** Rapiń, near Drezdenko, +, L (10 Oct. 2006); **BC62** Kwiejce, near Drawsko, +, L

(10 Aug. 2006); **BC68** Ludomy, near Ryczywół, +, L (22 Sept. 2011); **BC68** Wełna, near Rogoźno, +, L (20 Sept. 2011); **BC69** Boguniewo, near Rogoźno, 1, P (18 Sept. 2011); **BC69** Gościeje-wo, near Rogoźno, +, Ł (18 Sept. 2011); **BC69** Owczegłowy, near Rogoźno, +, D (28 Aug. 2005); **BC69** Potuły, near Wągrowiec, 1, Ł (4 Sept. 2005); **BC72** Kłosowice, near Sieraków, 2, P (9 Aug. 2006); **BC74** Białcz, near Chrzypsko Wielkie, +, L (6 Aug. 2006); **BC78** Chodzież, +, S (19 Sept. 2005); **BC78** Łukowo, near Oborniki, 1, P (15 Sept. 2007); **BC79** Słomowo, near Rogoźno, +, C (18 Sept. 2011); **BC79** Słomowo, near Rogoźno, 1, C (18 Sept. 2011); **BC79** Stary Łoskot, near Murowana Goślina, 1, S (27 Aug. 2005); **BC82** Kolno, near Międzychód, +, L (9 Aug. 2006); **BC82** Mnichy, near Międzychód, +, Pa (30 Sept. 2009); **BD09** Poznań-Antoninek, +, L (31 Jul. 2014); **BD42** Nowa Obra, near Wolsztyn, +, S (4 Oct. 2011); **BD53** Miały, near Wieleń, +, L (22 Jul. 2006); **BD76** Jabłonna, near Rydzyna, +, L (4 Jul. 2005); **BD78** Ziemiń, near Krobica, 2, S (6 Aug. 2005); **BD98** Dębowo Polskie, near Rawicz, 1, D (30 Jun. 2005); **CC20** Lipia Góra, near Szamocin, 1, L (8 Sept. 2013); **CC50** Dąbkowice, near Wągrowiec, 3, L (2 Sept. 2005); **CC51** Bukowiec, near Wągrowiec, +, S (30 Aug. 2005); **CC60** Grzybowice, near Skoki, +, L (28 Aug. 2005); **CC60** Wojciechowo, near Rogoźno, 1, K (28 Aug. 2005); **CC61** Sarbia, near Mieścisko, +, S (23 Aug. 2005); **CC61** Sarbia, near Mieścisko, +, P (29 Aug. 2005); **CC70** Grzybowo, near Skoki, +, S (28 Aug. 2005); **CC70** Niedarzyn, near Skoki, +, P (28 Aug. 2005); **CC70** Potrzeznowo, near Skoki, +, L (28 Aug. 2005); **CC70** Smolarki, near Skoki, +, D (24 Aug. 2005); **CC71** Bliżyce, near Skoki, +, L (27 Aug. 2005); **CC71** Chociszewko, near Skoki, 1, L (24 Aug. 2005); **CC72** Kłeczko, +, P (19 Aug. 2005); **CC72** Miłosławice, near Mieścisko, 1, S (22 Aug. 2005); **CC80** Boduszewo, near Murowana Goślina, +, S (12 Aug. 2008); **CC80** Dzwonowo, near Skoki, 2, N (17 Aug. 2005); **CC80** Turostówko, near Kiszkowo, 1, P (16 Aug. 2005); **CC81** Olekszyn, near Kiszkowo, 1, Ł (21 Aug. 2005); **CC94** Witkowo, +, S (5 Sept. 2013); **CC96** Anastazewo, near Powidz, 1, L (6 Sept. 2013); **CD01** Glinka Duchowna, near Kostrzyn, 2, Ł (7 Aug. 2005); **CD16** Brzozogaj, near Ostrowite, 1, L (13 Jun. 2008); **CD37** Zakrzewek, near Rzgów, +, L (29 Sept. 2007); **CD52** Jarocin, +, L (24 Oct. 2011); **CD62** Koźmin, 1, P (30 Sept. 2011); **CD64** Kowalew, near Pleszew, 2, P (13 Jul. 2005); **CD80** Nad Stawem, near Jutrosin, 1, L (21 Jun. 2005); **CD82** Krotoszyn, 1, D (2 Aug. 2005); **CD85** Latowice, near Sieroszowice, 2, P (18 Sept. 2007); **CD93** Odolanów, 1, D (18 Sept. 2007); **CD96** Ołobok, near Sieroszowice, 1, N (19 Sept. 2007); **CE14** Marcinki, near Kobyła Góra, +, N

- (9 Aug. 2010); **CE14** Marcinki, near Kobyla Góra, +, N (9 Aug. 2010); **CE15** Ostrzeszów, +, N (6 Aug. 2010); **CE16** Mikorzyn, near Kępno, 1, Pa (21 Nov. 2012); **CE25** Mielęcín, near Bralin, 1, S (9 Aug. 2010); **CE25** Przybyszów, near Kępno, 1, S (9 Aug. 2010); **CE92** Sulmierzyce, +, D (28 Jul. 2010); **DD20** Koło, 1, D (30 Jun. 2012); **DD50** Miłowice, near Dobra, 1, N (26 Sept. 2007).
- Lower Silesia Province: **BD75** Łągiszyn, near Góra Śląska, 1, L (5 Jul. 2005); **BD81** Gostyń, near Gaworzyce, +, P (29 Aug. 2009); **BD81** Korytów, near Gaworzyce, +, P (29 Aug. 2009); **BD92** Jakubów, near Radwanice, +, S (28 Aug. 2009); **BD97** Ługi, near Wąsosz, +, C (7 Sept. 2009); **BD98** Radziądz, near Żmigród, +, S (27 Jul. 2010); **BE06** Kozowo, near Wińsko, +, L (3 Sept. 2009); **BE17** Strupina, near Prusice, +, Pa (6 Sept. 2009); **BE28** Rościszewice, near Oborniki Śląskie, +, C (27 June 2010); **BE29** Cerekwica, near Trzebnica, +, K (2 July 2010); **CD81** Nowy Folwark, near Cieszków, +, L (20 Jun. 2005); **CD90** Słabocin, near Cieszków, 1, L (20 Jun. 2005); **CD91** Cieszków, +, L (17 Jun. 2005); **CD91** Góry, Cieszków, 2, L (19 Jun. 2005); **CD91** Guzowice, near Cieszków, 1, P (28 Aug. 2010); **CD92** Kołęda, near Milicz, 2, P (16 Jun. 2005); **CD92** Ostrowąsy, near Milicz, 1, L (19 Jun. 2005); **CE01** Czatkowice, near Milicz, 1, L (29 Jul. 2010); **CE01** Grabownica, near Milicz, +, P (26 Jul. 2010); **CE01** Henrykowice, near Milicz, +, L (31 Jul. 2010); **CE01** Krośnice, +, Pa (29 Jul. 2010); **CE01** Niesułowice, near Milicz, 1, S (29 Jul. 2010); **CE01** Podgórzyno, near Milicz, +, N (30 Jul. 2010); **CE01** Wąbice, near Krośnice, 1, S (29 Jul. 2010); **CE11** Bukowice, near Krośnice, +, P (22 Jul. 2010); **CE11** Miłochowice, near Milicz, +, S (25 Jul. 2010); **CE12** Goszcz, near Twardogóra, +, Pa (4 Aug. 2010); **CE13** Bukowina Sycowska, near Międzybórz, +, C (2 Aug. 2010); **CE13** Klonów, near Międzybórz, +, N (8 Aug. 2010); **CE21** Łuczyna, near Dobroszyce, +, D (2 Jul. 2010); **CE23** Dziesławice, near Międzybórz, +, L (2 Aug. 2010); **CE23** Stradomia Górna, near Syców, +, S (7 Jul. 2010).
- Kujawy-Pomerania Province: **CC32** Miąskowo, near Kcynia, +, P (31 Aug. 2005); **CC34** Szubin, +, P (23 Sept. 2013); **CC43** Byskorzystew, near Żnin, 1, L (22 Sept. 2013); **CC63** Tonowo, near Janowiec Wielkopolski, 1, P (25 Aug. 2005); **CC64** Łaziska, near Rogowo, 1, L (26 Aug. 2005); **CC66** Broniewiczki, near Dąbrowa, 1, P (7 Sept. 2013); **CC75** Chałupska, near Mogilno, +, N (10 Sept. 2013); **CC76** Huta Pałędzia, near Mogilno, +, S (8 Sept. 2013).
- Łódź Province: **DD20** Zagórze, near Dąbrowice, 1, P (1 Aug. 2012); **DD22** Kępina, near Grabów, 2, L (30 Jul. 2012); **DD32** Polamy, near Grabów, 1, S (30 Jul. 2012); **DD42** Piaski, near Świnice, 1, Ł (29 Jul. 2012).
- Roubus koehleri** Weihe (*leg.* A. Czarna, *det.* J. Zieliński)
Wielkopolska Province: **CD09** Zakrzewek, near Sompolno, +, P (15 Jun. 2008).
- Rubus kuleszae** Ziel. (*leg.* A. Czarna, *det.* J. Zieliński)
Lubuskie Province: **AD75** Golin, near Jasień, +, N (16 Sept. 2008).
Lower Silesia Province: **BE28** Wielka Lipa, near Oborniki Śląskie, +, C (26 Jun. 2010).
Wielkopolska Province: **CE14** Marcinki, near Kobyla Góra, +, N (9 Aug. 2010); **CE21** Łuczyna, near Dobroszyce, +, P (2 Jul. 2010); **CE35** Drożki, near Rychtal, +, C (29 Aug. 2010).
- Rubus lamprocaulos** G. Braun (*leg.* A. Czarna, *det.* J. Zieliński)
Lower Silesia Province: **BD92** Kaźmierzów, near Polkowice, 1, Ł (26 Aug. 2009).
- Rubus macrophyllus** Weihe & Nees (*leg.* A. Czarna, *det.* J. Zieliński)
Lubuskie Province: **AC75** Świerkocin, near Witnica, 1, C (27 Oct. 2011); **AD65** Górzyn, near Lubsko, +, P (15 Sept. 2008).
Lower Silesia Province: **BE18** Kopaszyn, near Prusice, +, L (8 Sept. 2009); **CD91** Słabocin, near Cieszków, 3, S (20 Jun. 2005); **CE00** Kaszowo, near Milicz, +, S (25 Jul. 2010); **CE00** Postolin, near Milicz, +, S (27 Jul. 2010); **CE01** Wąbice, near Krośnice, 1, P (29 Jul. 2010); **CE11** Bukowice, near Krośnice, +, P (22 Jul. 2010); **CE11** Pierstnica, near Krośnice, +, N (30 Jul. 2010).
- Rubus nemoralis** P.J. Müll. (*leg.* A. Czarna, *det.* J. Zieliński)
Lubuskie Province: **AD19** Przełazy, near Lubrza, 1, C (22 Sept. 2006).
Wielkopolska Province: **CC94** Witkowo, +, S (5 Sept. 2013); **CC95** Przybrodzin, near Powidz, 2, S (13 Jun. 2008).
- Rubus nemorosus** Hayne ex Willd. (*leg.* A. Czarna, *det.* J. Zieliński)
Lubuskie Province: **AD74** Jasionna, near Jasień, 2, C (16 Sept. 2008).
Wielkopolska Province: **CD96** Ołobok, near Sieroszowice, 1, N (19 Sept. 2007); **CE13** Kąty Śląskie, near Sośnie, +, P (7 Aug. 2010).
- Rubus nessensis** Hall (*leg.* A. Czarna, *det.* J. Zieliński)
Lubuskie Province: **AD45** Retno, near Krosno Odrzańskie, +, S (20 Sept. 2009); **AD67** Turów, near Nowogród Bobrzański, +, L (30 Aug. 2008).
Wielkopolska Province: **CD67** Aleksandrów, near Ceków, 1, S (30 Jul. 2005).

Rubus orthostachys G. Braun (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AD08** Wielowieś, near Sulęcín, 1, C (22 Sept. 2006); **AD78** Marcinów, near Brzeźnica, 1, C (18 Aug. 2009); **BD60** Nowa Sól, +, L (26 Aug. 2008).

Wielkopolska Province: **CD03** Grzybowo, near Września, +, N (5 Sept. 2013).

Lower Silesia Province: **CE21** Łuczyna, near Dobroszyce, +, D (2 Jul. 2010).

Wielkopolska Province: **DD41** Plebanki, near Osiek Mały, 1, S (23 Jul. 2012).

Rubus ostroviensis Sprib. (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AD36** Bytnica, 1, D (24 Sept. 2006).

Rubus pedemontanus Pinkw. (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AC77** Orzelec, near Deszczno, +, L (9 Oct. 2009); **AD25** Bargów, near Torzym, +, S (26 Sept. 2006).

Rubus plicatus Weihe & Nees (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AD15** Gądków Mały, near Torzym, 3, L (26 Sept. 2006); **AD15** Mierczany, near Torzym, +, D (16 Sept. 2009); **AD28** Niesulice, near Skąpe, +, S (23 Sept. 2006); **AD44** Chlebowo, near Gubin, +, C (13 Jun. 2010); **AD45** Chojna, near Krosno Odrzańskie, +, N (20 Sept. 2009); **AD45** Dachów, near Bobrowice, +, S (21 Sept. 2008); **AD45** Retno, near Krosno Odrzańskie, +, S (20 Sept. 2009); **AD45** Wężyska, near Krosno Odrzańskie, +, C (20 Sept. 2009); **AD49** Krępa, near Zielona Góra, +, L (25 Aug. 2008); **AD56** Dęby, near Bobrowice, +, N (21 Sept. 2008); **AD63** Luboszyce, near Gubin, +, L (20 Sept. 2008); **AD63** Luboszyce, near Gubin, 2, L (20 Sept. 2008); **AD63** Sadzarzewice, near Gubin, +, S (20 Sept. 2008); **AD64** Mierków, near Lubsko, +, K (15 Sept. 2008); **AD64** Osiek, near Lubsko, +, S (15 Sept. 2008); **AD64** Starosiedle, near Gubin, +, N (20 Sept. 2009); **AD69** Studzieniec, near Kożuchów, +, C (26 Aug. 2008); **AD74** Tarnów, near Lubsko, +, L (17 Sept. 2008); **AD75** Jurzyn, near Jasień, +, C (16 Sept. 2008); **AD78** Marcinów, near Brzeźnica, 1, C (18 Aug. 2009); **AD78** Skibice, near Nowogród Bobrzański, 1, L (18 Aug. 2009); **AD86** Złotnik, near Żary, +, C (22 Sept. 2008); **AD94** Jędrzychowice, near Trzebiel, 1, S (16 Aug. 2009); **BD80** Stara Jabłona, near Niegosławice, +, C (22 Aug. 2009); **BD89** Międzylesie, near Niegosławice, 2, C (21 Aug. 2009); **CC32** Czarnowo, near Krosno Odrzańskie, 1, Ł (23 Oct. 2015).

Wielkopolska Province: **BC26** Kępa, near Trzcianka, 1, S (2 Sept. 2011); **BC26** Łomnica-Młyn, near Trzcianka, 1, L (2 Sept. 2011); **BC26** Pokrzywno, near Trzcianka, 1, L (2 Sept. 2011); **BC26** Wrząca, near Trzcianka, 1, N (1 Aug. 2011); **BC28** Morzewo, near Kaczory, +, Ł (23 Aug. 2010); **BC45** Runowo, near Trzcianka, +, P (3 Sept. 2011); **BC47** Gębice, near Czarnków, +, L (15 Jul. 2006); **BC56** Białężyn, near Czarnków, 1, P (17 Jul. 2006); **BC58** Tłukawy, near Ryczywół, 1, S (16 Sept. 2011); **BC83** Wituchowo, near Kwilcz, 1, L (7 Aug. 2006); **BC84** Psarki, near Pniewy, 1, L (8 Aug. 2006); **BD42** Wilcze, near Wolsztyn, +, L (2 Oct. 2011); **BD53** Brenno, near Wijewo, +1, C (18 Oct. 2011); **CE03** Boników, near Odolanów, 1, S (1 Aug. 2010); **CE25** Mielęcín, near Bralin, +, S (9 Aug. 2010).

Lower Silesia Province: **BE08** Bychowo, near Żmigród, +, D (7 Sept. 2009); **BE29** Cerekwica, near Trzebnica, +, K (2 Jul. 2010); **CC32** Czarnowo, near Krosno Odrzańskie, 1, Ł (23 Oct. 2015); **CE01** Podgórzyno, near Milicz, 2, N (30 Jul. 2010); **CE02** Borzynowo, near Milicz, +, P (31 Jul. 2010); **CE11** Bukowice, near Krośnice, +, P (22 Jul. 2010); **CE21** Łuczyna, near Dobroszyce, +, D (2 Jul. 2010); **EB06** Górzyn, near Rudna, +, K (4 Sept. 2009).

Kujawy-Pomerania Province: **CC76** Huta Pałędzka, near Mogilno, 1, S (8 Sept. 2013); **CC88** Jeziora Młodsze, near Jeziora Wielkie, +, N (12 Oct. 2007).

Łódź Province: **DD32** Bugaj, near Grabów, 1, P (30 Jul. 2012).

Rubus posnaniensis Sprib. (*leg.* A. Czarna, *det.* J. Zieliński)

Wielkopolska Province: **CD50** Ostrowieczno, near Dolsk, 1, S (14 Jun. 2005); **DD41** Plebanki, near Osiek Mały, 1, S (23 Jul. 2012).

Rubus praecox Bertol. (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AC75** Świerkocin, near Witnica, +, C (27 Oct. 2011).

Rubus radula Weihe (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AC97** Trzemeszno Lubuskie, near Sulęcín, 1, L (22 Sept. 2006); **AD25** Bargów, near Torzym, 1, S (22 Sept. 2006); **AD36** Struga, near Bytnica, 2, S (24 Sept. 2006); **AD57** Letnica, near Świdnica, +, C (27 Aug. 2008); **BD81** Zimna Brzeźnica, near Niegosławice, 3, D (22 Aug. 2009).

Lower Silesia Province: **BE06** Słup, near Wińsko, +, L (3 Sept. 2009); **BE17** Godzięcín, near Brzeg Dolny, +, C (26 Jun. 2010); **CE00** Pracze, near Milicz, +, S (27 Jul. 2010); **CE01** Czatkowice, near Milicz, +, L (29 Jul. 2010); **CE01** Krośnice, +, Pa (29 Jul. 2010); **CE01** Wąbice, near Krośni-

ce, 2, S (29 Jul. 2010); **CE11** Miłochowice, near Milicz, +, S (25 Jul. 2010).

Rubus saxatilis L. (*leg. det.* A. Czarna)

Wielkopolska Province: **BC89** Biedrusko, near Suchy Las, 1, N (16 Sept. 2007).

Kujawy-Pomerania Province: **CC35** Wielki Sosnowiec, near Szubin, +, L (15 Sept. 2013); **CC47** Tarkowo Dolne, near Nowa Wieś Wielka, 1, P (15 Aug. 2020).

Rubus schleicheri Weihe ex Tratt. (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AD55** Przychów, near Bobrowice, Krosno County, +, N (21 Sept. 2008); **AD63** Luboszyce, near Gubin, +, L (20 Sept. 2008); **AD45** Dachów, near Bobrowice, +, S (21 Sept. 2008).

Lower Silesia Province: **BE17** Godzięcin, near Brzeg Dolny, +, C (26 Jun. 2010); **CE11** Grabowo Wielkie, near Twardogóra, +, C (22 Jul. 2010).

Rubus seebergensis Pfuhl ex Sprib. (*leg.* A. Czarna, *det.* J. Zieliński)

Wielkopolska Province: **BD88** Dąbrówka, near Rawicz, 1, L (29 Jun. 2005); **CD28** Konin, +, L (23 Jun. 2012); **CD40** Błazejewo, near Dolsk, 3, S (14 Jun. 2005); **CD42** Radliniec, near Nowe Miasto nad Wartą, 1, P (20 Jul. 2005); **CD67** Aleksandrów, near Ceków, 1, S (30 Jul. 2005); **DD10** Babiak, +, P (15 Jun. 2008).

Lower Silesia Province: **CE01** Grabownica, near Milicz, +, P (26 Jul. 2010); **CE01** Henrykowice, near Milicz, +, L (26 Jul. 2010); **CE11** Czarnogózdzi- ce, near Milicz, +, L (31 Jul. 2010).

Rubus sprengelii Weihe (*leg.* A. Czarna, *det.* J. Zieliński)

Lubuskie Province: **AD57** Chromów, near Bobrowice, +, L (21 Sept. 2008); **AD74** Tuplice, +, D (16 Sept. 2008); **AD84** Matuszowice, near Tuplice, +, N (6 Sept. 2008); **BC50** Nowe Kurowo, near Stare Kurowo, +, N (12 Nov. 2012).

Wielkopolska Province: **BC27** Stobno, near Trzcianka, 1, C (6 Aug. 2011); **BC47** Paliszewo, near Czarnków, +, C (16 Jul. 2006); **BC59** Nowe Brzeźno, near Budzyń, 3, S (2 Sept. 2005).

Rubus spribillei (Pfuhl ex Sprib.) Kulesza (*leg.* A. Czarna, *det.* J. Zieliński)

Wielkopolska Province: **CE25** Turze, near Ostrzeszów, +, N (9 Aug. 2010).

Rubus umbrosus (Weihe & Nees) Arrh. (*leg.* A. Czarna, *det.* J. Zieliński)

Lower Silesia Province: **CE23** Dziesławice, near Międzybórz, 1, L (2 Aug. 2010).

Wielkopolska Province: **DD10** Borecznia Wielka, near Osiek Mały, +, S (23 Jul. 2012).

Rubus umbrosus* × *R. gracilis (*leg.* A. Czarna, *det.* J. Zieliński)

Kujawy-Pomerania Province: **CC76** Huta Pałędzia, near Mogilno, +, S (8 Sept. 2013).

LIST OF ALIEN TAXA OF THE GENUS *RUBUS*

Rubus armeniacus Focke (*leg. det.* A. Czarna)

Lubuskie Province: **AC77** Podjenin, near Bogdaniec, 1, K (28 Oct. 2011); **AD64** Gębice, near Brody, N (18 Sept. 2008); **AD86** Żary, +, K (24 Sept. 2008); **AD89** Borów, near Nowe Miasteczko, +, C (9 Sept. 2008).

Lower Silesia Province: **BD81** Gaworzyce, +, N (29 Aug. 2009); **BD82** Bogumice, near Kotla, 1, N (7 Jul. 2005); **BD82** Dankowice, near Żukowice, 2, P (29 Aug. 2009); **BE17** Strupin, near Prusice, +, Pa (6 Sept. 2009); **BE28** Oborniki Śląskie, +, D (17 Aug. 2009); **BE28** Rościszewice, near Oborniki Śląskie, +, C (27 Jun. 2010); **BE28** Uraz, near Oborniki Śląskie, +, C (27 June 2010); **BE29** Cerekwica, near Trzebnica, +, K (7 Jul. 2010).

Rubus nemoralis* f. *laciniatus (Willd.) A. Beek (*leg. det.* A. Czarna)

Lubuskie Province: **AD15** Gądków Mały, near Torzym, +, S (26 Sept. 2006).

Wielkopolska Province: **CC72** Miłosławice, near Mieścisko, +, S (22 Aug. 2005); **CE25** Turze, near Ostrzeszów, +, N (9 Aug. 2010).

RESULTS AND DISCUSSION

The two most abundant genera in old cemeteries in Wielkopolska are: *Rubus* – 39 species and their hybrids (Table 1), and *Rosa* – 35 species (CZARNA 2016). The *Rubus* flora encompasses 36 native species, two hybrids, and two alien taxa (*R. armeniacus* and *R. nemoralis* f. *laciniatus*).

Some of the species are rare in the Wielkopolska region, based on maps in ZIELIŃSKI (2004): *R. apricus*, *R. chaerophylloides*, *R. camptostachys*, *R. capitulatus*, *R. crispomarginatus*, *R. divaricatus*, *R. koehleri*, *R. kuleszae*, *R. lamprocaulos*, *R. bicolor*, *R. nemoralis*, *R. nemorosus*, *R. ostroviensis*, *R. posnaniensis*, *R. praecox*, *R. ×idaeoides*, *R. umbrosus*, *R. schleicheri*, *R. seebergensis*, and *R. siemianiciensis*.

The most common species include *R. caesius* (418 cemeteries) and *R. idaeus* (229 cemeteries), followed by *R. corylifolius* agg. (77 cemeteries) and *R. plicatus* (57 cemeteries). Other species were found in fewer than 25 cemeteries. *Rubus acanthodes*, *R. crispomarginatus*, and *R. praecox* are new to Wielkopolska (as compared to ZIELIŃSKI 2004).

The *Rubus* flora of old cemeteries in Wielkopolska (40 species) – although covering relatively small areas – is high, as compared to the *Rubus* flora of southern Wielkopolska (54 species; MALIŃSKI 2001).

Table 1. The number of localities of *Rubus* species found in old cemeteries in Wielkopolska

<i>Rubus</i> taxon	Number of localities
<i>R. acanthodes</i>	1
<i>R. apricus</i>	1
<i>R. armeniacus</i>	11
<i>R. bicolor</i>	3
<i>R. caesius</i>	418
<i>R. camptostachys</i>	3
<i>R. capitulatus</i>	13
<i>R. chaerophylloides</i>	1
<i>R. corylifolius</i>	78
<i>R. crispomarginatus</i>	1
<i>R. divaricatus</i>	1
<i>R. fabrimontanus</i>	24
<i>R. grabowskii</i>	23
<i>R. gracilis</i>	22
<i>R. hirtus</i>	2
<i>R. ×idaeoides</i>	1
<i>R. idaeus</i>	229
<i>R. koehleri</i>	1
<i>R. kuleszae</i>	5
<i>R. lamprocaulos</i>	1
<i>R. macrophyllus</i>	9
<i>R. nemoralis</i>	3
<i>R. nemoralis</i> f. <i>laciniatus</i>	3
<i>R. nemorosus</i>	3
<i>R. nessensis</i>	3
<i>R. orthostachys</i>	6
<i>R. ostroviensis</i>	1
<i>R. pedemontanus</i>	2
<i>R. plicatus</i>	59
<i>R. posnaniensis</i>	1
<i>R. praecox</i>	1
<i>R. radula</i>	12
<i>R. rubiginosus</i>	1
<i>R. saxatilis</i>	3
<i>R. schleicheri</i>	5
<i>R. seebergensis</i>	9
<i>R. siemianiciensis</i>	1
<i>R. sprengelii</i>	7
<i>R. umbrosus</i>	2
<i>R. umbrosus</i> × <i>gracilis</i>	1

The high number of *Rubus* species in old cemeteries of Wielkopolska may be caused by their location on somewhat elevated terrain and often in forests or at forest edges or as forest islands among fields, where birds – which disperse *Rubus* seeds – perch. Less frequently, they are brought by people as a suitable symbol and planted on or around the graves, also as protection against evil spirits. They often form bramble thickets (composed usually of single species and rarely of many species) that are difficult to traverse.

The number of *Rubus* species reported from Polish cemeteries has been negligible to date. The principal reason for this may lie in the requirement for specialised knowledge to identify accurately these brambles. Additionally, it is essential to collect herbarium

material appropriately to facilitate correct identification by specialists at a later stage. Therefore, brambles are often ignored by florists in field surveys. In seven cemeteries in Lublin (SE Poland), only *R. caesius* was reported (TRZASKOWSKA & KARZMARZ 2013), while in two old graveyards in the so-called Land of the Great Lakes (NE Poland) and 43 cemeteries in the Słowiński National Park (N Poland; SOBISZ & ANTKOWIAK 2009), *R. caesius* and *R. idaeus* were present. Only *R. idaeus* (STYPIŃSKI 1978) was found in 11 cemeteries in Olsztyn (NE Poland) and five cemeteries in the Drawsko Landscape Park (N Poland; SIGIEL-DOPIERAŁA & JAGODZIŃSKI 2011). Only *R. caesius* was recorded in seven cemeteries in and around Ostrów Wielkopolski (Greater Poland; CELKA & ŻYWICA 2004). *Rubus* species were not mentioned in cemeteries of the left-bank part of Warsaw (GALERA et al. 1993) and in burial cemeteries in Chełmskie (FIJAŁKOWSKI & KĘDZIERAWSKA 1982). In conclusion, the flora of old cemeteries in the Wielkopolska region is rich and interesting. It includes two taxa new to the Polish flora: *R. armeniacus* and *R. nemoralis* f. *laciniatus*. Also three species new to this region were recorded during this study: *R. acanthodes*, *R. crispomarginatus*, and *R. praecox*.

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