

**Distribution and host plants of *Leiopus nebulosus* (L.) and *L. linnei*
WALLIN, NYLANDER et KVAMME (Coleoptera: Cerambycidae)
in Poland and neighbouring countries**

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ABSTRACT. 513 specimens of *Leiopus nebulosus* s.l. originating from different European countries, mainly Poland have been analyzed. Among all specimens 403 belong to *L. linnei* Wallin, Nylander et Kvamme and 110 to *L. nebulosus* (L.); precise data concerning localities, including presentation of Polish localities on UTM maps have been included. Host plants of both species have been listed including new

ones: *Padus avium* and *Picea abies* for *L. nebulosus* and *Acer negundo*, *Aesculus hippocastanum*, *Alnus glutinosa*, *Carpinus betulus*, *Corylus avellana*, *Fagus sylvatica*, *Juglans regia*, *Malus domestica*, *Padus avium*, *Picea abies*, *Pinus sylvestris*, *Populus tremula*, *Rhus typhina*, *Salix caprea*, *Sorbus aucuparia*, *Ulmus laevis* for *L. linnei*. Specimens of *L. linnei* from Poland are on average slightly bigger than those from Scandinavia. *Leiopus nebulosus* have been recorded as new for Poland, Austria and Ukraine; *L. linnei* for Lithuania, Belarus and Ukraine.

KEY WORDS: Coleoptera, Cerambycidae, *Leiopus linnei*, *Leiopus nebulosus*, host plants, new records, Poland, Central Europe.

INTRODUCTION

In 2009 Scandinavian researchers have separated new species *Leiopus linnei* from widely distributed and well known *L. nebulosus*. The new species has been recorded from Norway, Sweden, Denmark, Great Britain, Belgium, Germany, France, Czech Republic, Slovakia, Austria, Croatia, Bulgaria, Romania and Poland. However, except Sweden, Belgium and France, where the species is known from numerous localities and specimens, data from other countries are based on single records. From Poland *L. linnei* is recorded based on one female specimen without precise data on locality (WALLIN et al. 2009, BERGER 2009, DRUMONT & WALLIN 2009, SAMA & LÖBL 2010). Recently *L. linnei* has been recorded by HILSZCZAŃSKI and PLEWA (2009) from forest subdistricts Smoszew and Sokołówka (UTM: XT72) near Krotoszyn. *L. nebulosus* after redescription is known only from Sweden, Norway, Denmark, Finland, France, Belgium, Germany, Great Britain, Ireland and Italy. So far the species hasn't been recorded from Poland (BERGER 2009, WALLIN et al. 2009).

The goal of the present work is to recognize distribution of the species in Poland and other countries and to collect data on host plants and preferences of the larvae of both species.

MATERIALS AND METHODS

Altogether 513 specimens of both species have been checked, 403 of *L. linnei* (196 males, 207 females) and 110 of *L. nebulosus* (61 males, 49 females). Except collections of authors specimens originated from the collections of MAREK BUNALSKI (Poznań), Forest Research Institute (Sękocin) and Institute of Systematics and Evolution of Animals, Pol. Acad. Sci. (Kraków). In the case of males all specimens have been dissected in order to examine characteristic features present on genitalia. Females have been determined based on genitalia and external features as hairs on last visible sternite of abdomen. Genitalia have been checked in 60% of specimens. Data on host associations of the species have been collected by authors during many years of activity. All localities of the species in Poland

have been presented on UTM map (Figs 1, 2) and grouped in the text according to zoogeographical areas following Catalogue of Fauna of Poland (BURAKOWSKI et al. 1990).

Voucher specimens are present in authors' collections, all other cases were listed in the text.



Fig. 1. Locations of *Leiopus nebulosus* (L.) in Poland (UTM grid map).

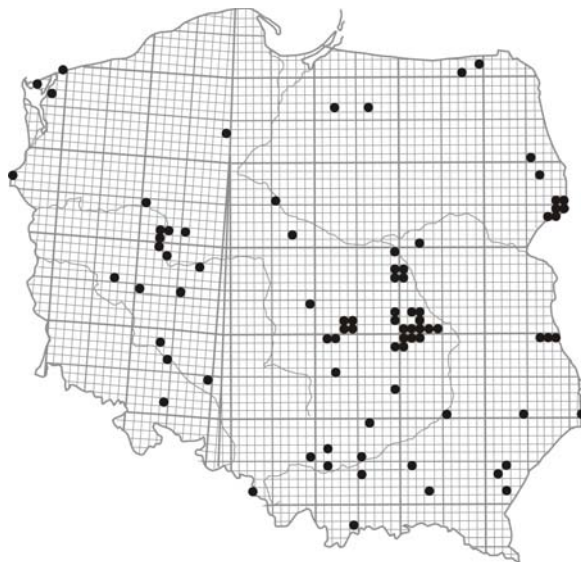


Fig. 2. Locations of *Leiopus linnei* WALLIN, NYLANDER et KVAMME in Poland (UTM grid map).

RESULTS

The following abbreviations have been used: collectors' names: BK – B. KOTULA, BW – B. WIŚNIEWSKI, DK – D. KUBISZ, JG – J. M. GUTOWSKI, JH – J. HILSZCZAŃSKI, JK – J. KURZAWA, JM – J. K. MŁYNARSKI, MB – M. BUNALSKI, MM – M. MIŁKOWSKI, MP – M. PRZEWOŹNY, MR – M. RYBIŃSKI, MW – M. WELNICKI, RP – R. PLEWA, SS – S. STOBIECKI, TM – T. MOKRZYCKI; [ISEA] – collection of Institute of Systematics and Evolution of Animals, Pol. Acad. Sci. (Kraków); f – female, m – male; N.P. – National Park. The administrative division of public forests in Poland is as follows: forest districts (distr.; „nadleśnictwo”) are divided into forest subdistricts (sdistr.; „leśnictwo”), and the latter are subdivided into forest compartments (comp.; „oddział”).

Leiopus nebulosus (LINNAEUS, 1758)

(Fig. 1)

Poland

Pomeranian Lake District: Bukowa Forest, Kołowo (VV70), 29 V 1987, 1 m, leg. L. BUCHHOLZ, coll. DK. **Masurian Lake District:** Romincka Forest, ad Żytkiejmy, comp. 306/339 (FF01), reared in V 1990 from branch of *Tilia cordata* MILL. (1-3 cm in diameter) collected 15 VII 1989, 7 m, leg., cult. et coll. JG; Borecka Forest, Lipowo (EE79), 8 VII 1990, 1f, leg. JH. **Wielkopolska-Kujawy Lowland:** Jankowice (XU11) ad Poznań, 17 VI 1985, 1 f, leg. E. BARANIAK, coll. JG; Sycyn Dolny ad Szamotuły (XU13), 2 VI 2007, 1 m, 1 f, leg. et coll. MB; Promno (XU51) ad Poznań, 1977, 1 f, leg. et coll. JG; Białe Błota (XU98) ad Bydgoszcz, 9 IX 1960, 1 m, leg. RODOWICZ, coll. JK; Wielkopolski N.P., ad Puszczykówko (XT29), 13 VI 1978, reared from branch of *Quercus robur* L., 1 f, leg., cult. et coll. JG; Wielkopolski N.P., ad Puszczykowo (XT29), 9 VII 1978, reared in 13 II 1978 from branch of *Q. robur*, 1 f, leg., cult. et coll. JG; Wielkopolski N.P., ad Puszczykowo (XT29), 6 V 1979, reared from branch of *Q. robur*, 1 f, leg., cult. et coll. JG; Wielkopolski N.P., ad Puszczykowo (XT29), 8 VII 1982, 1 f, leg. P. STACHOWIAK, coll. JG; Wielkopolski N.P., Jezioro (XT29), 1 VI 1982, 1 f, leg. P. STACHOWIAK, coll. JG; Miszek (CD55) ad Włocławek, 21 IV 1978, reared from branch of *Padus avium* MILL. (2 cm in diameter), 1 m, leg., cult. et coll. JG; Miszek, VII 1986, 1 f, leg. et coll. JG; Kościelec (CC38) ad Koło, XII 1996-I 1997, 3 m, leg. et coll. R. MATUSIAK, coll. MP. **Mazowiecka Lowland:** Kacice (ED03) ad Pułtusk, VII 2001, 1 f, leg. A. PRANGE, coll. MP; Kampinoski N.P., „Sieraków” reserve (DC99), 16-18 IV 1980, 1 m and 2 f reared from larvae collected on 4 IV 1980, leg., cult. et coll. MW; Kampinoska Forest, Distr. Kampinos, 19 XI 1938, 1 f and 1 m, reared from *Alnus* sp. 13 II 1939 (coll. Forest Research Inst.); Warszawa-Młociny (DC99), 3-14 IV 1980, 1 m and 4 f, reared from larvae found on 16 III 1980 in branches of *Alnus glutinosa* (L.) GAERTN., leg., cult. et coll. MW; Kozienicka Forest, Marianów (EC21), 30 VI 1997, 1 m collected at light, leg. J. SIEKIERSKI, coll. MM; Kozienicka Forest, Marianów, 2 I 1998, 1 f, reared from branch of *Tilia cordata*, found on 23 IX 1997, leg., cult. et coll.

MM; Kozienicka Forest, Grądy (EC21), 10 VI 1996, 1 f, reared from branch of *T. cordata*, found on 19 IV 1996, leg., cult. et coll. MM; Drozdowo (ED79) ad Łomża, 27 VI 2004, 1 m, leg. et coll. T. ODER. **Podlasie Lowland:** Knyszyńska Forest, Kopna Góra (FE60), 23 V 1990, 1 f, leg. A. POKOJOWCZYK, coll. JG; Biebrzański N.P. (FE01), 15 VI 2009, 8 f and 10 m, reared from branch of *Q. robur*, leg., cult. et coll. JH et RP; Biebrzański N.P., Grobla Chonczarowska (FE00), 2 f and 2 m, reared from *Corylus avellana* L. twigs, leg. et coll. JH; Biebrzański N.P. (FE01), 28-29 V 2007, 1 m and 1 f, reared from a dead oak (*Quercus* sp.) branch collected on 17 V 2006, leg., cult. et coll. MW. **Białowieża Primeval Forest:** Białowieża Primeval Forest, ad Białowieża, comp. 452 (FD94), 30 V 1979, 1 f, leg. et coll. JG. **Upper Silesia:** Ziemięcice (CA38), 21 VI 1986, 1 m, leg. JH; 23 III 1990, 2 m, reared from twigs of *Picea abies* (L.) H. KARST., leg. JH. **Kraków-Wieluń Upland:** Kraków-Przegorzały (DA14), 16 IV 1989, 1 m ex cult. 25 IV 1989, from branch of fruit tree, leg. et coll. DK; Ojców N.P., Ojców-Czyżówki (DA16), 12 VII 1996, 1 f, leg. BW, coll. JG; Ojców N.P., Ojców (DA16), 27 VI 1998, 1 f, leg. BW, coll. JG; Ojców N.P. (DA16), comp. 17, 17 VIII 1989, 1 m on *Acer platanoides* L., leg. BW [ISEA]. **Małopolska Upland:** Łódź (Las Łagiewnicki) (CC94), 11 XI 1996, 1 f, ex larva, leg., cult. et coll. JK; Tunel (DA28) ad Miechów, 1 VIII 1984, 1 m, leg. JM, coll. DK. **Lubelska Upland:** Hańsk Drugi (FB69), 8 II 2002, 1 m, reared from stem of *Quercus* sp. collected on 24 XI 2001, leg., cult. et coll. MM. **Sandomierska Lowland:** Niepołomicka Forest, Ispina (DA55), 28 IV 1986, 1 m on bark of oak, leg. S. PASTERNAK, coll. DK. **Western Sudety Mts.:** Karpacz (WS52), 18 VII 1992, 1 f, leg. MB, coll. JG. **Western Beskidy Mts.:** Barania Góra Mt. (CV59), 3 VIII 1873, 1 m, leg. BK [ISEA]; Skawce (CA91) ad Sucha Beskidzka, 2 VI 1983, 1 f and 1 m, leg. et coll. DK; Krynica-Czarny Potok (DV97), 10 VII 1985, 1 m, leg. et coll. DK; Młodów (DV77) ad Rytro, 14 VII 1899, 1 m, leg. SS [ISEA]; Żegiestów (DV87), summer 1878, 1 m, leg. SS [ISEA]; Paieśnica (DA81) ad Zakliczyn, 1987, 1 m, leg. JM [ISEA]; Ruda Kameralna (DA81) ad Zakliczyn, VII 1988, 1 m, leg. JM [ISEA]. **Nowotarska Dale:** Zakopane (DV26), 20 VIII 1926, 1 m, leg. W. NIESIOŁOWSKI [ISEA]. **Eastern Beskidy Mts.:** Mt. Radocyna (EV27), 1 VI 1990, 1 m and 1 f, leg. S. KNUTELSKI, coll. DK; Barwinek (EV47), 18 IV 2009, 8 f and 6 m, ex cult. on *Alnus* sp. II 2010, leg. and cult. JH; Przemysł-Pralkowce (FA21), 1878, 1 m, leg. BK [ISEA].

Austria

Wien-Kahlenberg, 9-21 V 1889, 1 m, leg. BK [ISEA].

Italy

Bibione ad Venezia, 7 VII 1994, 1 f, leg. et coll. DK.

Ukraine

Lviv [Lwów], 19 VI 1875, 1 f and 2 m, leg. BK [ISEA]; Hodyni [Hodynien] ad Mostys'ka, 9 VI 1884, 1 f, leg. BK [ISEA]; Ternopil [Tarnopol], 1 m, leg. MR [ISEA] (pub-

lished as *L. nebulosus* – RYBIŃSKI 1903); Halych [Halicz], 3-15 VII 1883, 1 m, leg. SS [ISEA]; Lomachyntsi ad Mohyliv Podils'kiy, 2 VI 1997, 1 m, leg. DK [ISEA].

***Leiopus linnei* WALLIN, NYLANDER et KVAMME, 2009**

(Fig. 2)

Poland

Baltic Coast: Wolin N.P., Międzyzdroje (VV67), 4 VII 1997, 1 m, leg. et coll. MB; Mierzęcin (VV86) ad Wysoka Kamień, 3 VII 1997, 1 m, leg. et coll. MB; Pobierowo (VV99), 3 VII 1980, 1 f, leg. C. Watała, coll. JG. **Pomeranian Lake District:** „Bielinek“ reserve (VU46), 8-20 V 1999, 1 f and 1 m, reared from cut wood of *Quercus* sp., leg. et coll. A. ŁABĘDZKI, coll. JG; Rudzki Most (XV93) ad Tuchola, 12 VI 1978, 1 f, reared from branch of *Quercus* sp., leg., coll. et coll. JG. **Masurian Lake District:** Borecka Forest, ad Czerwony Dwór (EF70), mixed coniferous forest, 9 VII 1989, 1 f, leg. et coll. JG; Romincka Forest, Ostrówko (EF91), 25 V 2009, 1 f, leg. T. BIWO, coll. JG; Romincka Forest, ad Pluszkiejmy (EF91), 29 VI 1987, 1 f, leg. et coll. JG; Słonecznik (DE26) ad Morąg, 18 VI 1984, 1 f, leg. P. FIERKOWICZ, coll. JG; Gutkowo (DE66) ad Olsztyn, road trees, 23 VII 1993, 1 f, leg. T. HUFLEJT, coll. JG. **Wielkopolska-Kujawy Lowland:** „Świetlista Dąbrowa” reserve (XU04) ad Obrzycko, 8 V 2007, 1 m, leg. et coll. MB; Poznań-Ogrody, garden of Departament of Entomology, University of Life Sciences (XU20), 7-9 VII 2006, ad lucem, 1 f, leg. W. KUBASIK, 30 V-2 VI 2008, ad lucem, leg. et coll. MB; Poznań, at Rusałka Lake (XU21), 1 V 1977, 1 f and 1 m, reared from larvae on *Padus avium*, leg., coll. et coll. JG; Poznań-Naramowice (XU31), 27 V 2001, 1 f, leg. B. BOROWIAK, coll. MB; Promno (XU51) ad Poznań, 18 V 1976, 2 f, leg. J. ŁUGOWOJ, coll. JG; Spokojna (WT75) ad Zielona Góra, 5 VII 1990, 1 f, leg. L. BUCHHOLZ, coll. JG; Trzebaw (XT29) ad Poznań, 13 VII 2006, leg. B. BOROWIAK, coll. MB; Wielkopolski N.P., Wiry (XT29), 16 V 2007, 1 f, leg. P. TRZCIŃSKI, coll. MB; Rogalin (XT38), 16 IV 2003, 2 m ex pupa, 23 IV 2004, 1 f ex pupa, 28 IV 2004, 1 f, 22 V 2007, 1 m, 24 V 2007, 1 f, leg. coll. et coll. MP; Żerkowsko-Czeszewski Landscape Park, „Czeszewski Las” reserve vic. (XT77) ad Jarocin, 25 V 2006, 4 m and 2 f, (2m and 1 f ex pupa), leg. coll. et coll. MP; s.distr. Międzybrze ad Pogorzela, comp. 244h (XT54), 20 XI 2006, 2 m and 1 f, leg. et coll. MB; Gołuchów (YT04) ad Kalisz, 4 VI 1993, 3 m and 1 f, leg. A. MELKE, coll. JG; Miszek (CD55) ad Włocławek, 15 VIII 1995 – 1 m, leg. K. GUTOWSKI, VI 2009 – 1 m, leg. W. GUTOWSKI, coll. JG; Łask (CC71), V 1997, 1 m, leg. T. JAWORSKI. **Mazowiecka Lowland:** Kampinoski N.P., „Sieraków” reserve (DC99), 1 m reared from a larva collected on 4 IV 1980, leg., coll. et coll. MW; Warszawa-Bielany (DC99), 11 III 1980, 1 m reared from a larva found on 11 II 1980 under bark of a dead *Quercus* sp.; 27 XII 1982, 1 f reared from a larva found on 22 XI 1982 in a dead *Quercus* sp. branch, leg., coll. et coll. MW; Warszawa-Paluch (DC97), 29 IV 1986, 1 f reared from a larva collected on 6 IV 1986 from a dead trunk of *Corylus avellana*, leg., coll. et coll. MW; Sękocin (DC97) ad Warszawa, 3 IV

1989, 2 m reared from larvae found on 19 III 1989 under a bark of *Quercus* sp. branch, leg., cult. et coll. MW; Sękocin Stary (DC97), 3 I 2010, 1 m and 1 f reared from *Q. robur* twig 16 II 2010, leg. and cult. JH; Szczaki (DC96) ad Piaseczno, 21 V 1989, 1 m under bark of a dead *Quercus* sp. branch; 7 V 1990, 1 m reared from a pupa collected on 1 V 1990 from a *Carpinus betulus* L. branch, leg., cult. et coll. MW; Warszawa-Ursynów (EC07), pupa in pupal chamber on *Quercus* sp., 7 V 1995, 1 m, leg. et coll. TM; Chojnów (EC06) ad Piaseczno, 1 m reared from a pupa collected on 10 V 1989 from a branch of *Pinus sylvestris* L.; 20-21 V 1980, 1 m and 1 f reared from pupae collected on 11 V 1980 from a branch of *Quercus* sp., leg., cult. et coll. MW; Henryków (EC12) ad Głowaczów, 9 XII 2009, 3 f and 2 m ex larva, under bark of *Malus domestica* BORKH., leg., cult. et coll. RP; Kozienicka Forest, Dąbrowa Kozłowska (EC10), 9 I 2004, 1 f reared from branch of *Rhus typhina* L. collected on 11 XI 2003, leg., cult. et coll. MM; Kozienicka Forest, Dąbrowa Kozłowska, 16 V 2006, 1 f reared from branch of *Populus tremula* L. collected on 1 V 2006, leg., cult. et coll. MM; Kozienicka Forest, „Pionki” reserve (EC20), 10 I 1998, 1 m reared from branch of *Quercus* sp. collected on 8 XI 1997, leg., cult. et coll. MM; Kozienicka Forest, Dąbrowa Jastrzębska (EC10), 23 IV 1998, 1 f reared from stem of *Salix caprea* L. collected on 26 III 1998, leg., cult. et coll. MM; Kozienicka Forest, Selwanówka (EC22), 18 IV 2003, 1 m reared from branch of *Q. robur* collected on 25 III 2003, leg., cult. et coll. MM; Kozienicka Forest, Poświętne (EC20), 15 VI 2002, 1 m, leg. G. STĘPIEŃ, coll. MM; Kozienicka Forest, Garbatka Letnisko (EC40), 26 II 2004, 1 f, reared from branch of *Acer platanoides* collected on 21 XII 2003, leg., cult. et coll. MM; Pionki (EC30), 30 VI 1951, 1 f, leg. W. KOEHLER; Kozienicka Forest, „Załamane” reserve vic. (EC20), 6 III 2005, 1 m, reared from branch of *Picea abies* collected on 19 II 2005, leg., cult. et coll. MM; Kozienicka Forest, „Brzeźniczka” reserve (EC30), 23 II 1997, 1 m reared from branch of *Quercus* sp. collected on 29 I 1997, leg., cult. et coll. MM; Kozienicka Forest, Jastrzębia (EC10), 5 II 1998, 1 f, reared from branch of *Acer negundo* L. collected on 31 XII 1997, leg., cult. et coll. MM; Kozienicka Forest, Marianów (EC21), 25 VI 1997, 1 f, leg. et coll. MM; Kozienicka Forest, „Jedlnia” reserve (EB29), 31 I 1996, 2 f, reared from branch of *Quercus* sp. collected on 4 I 1996, leg., cult. et coll. MM; Klembów (ED20), „Klembów” reserve, 29 V 1938, 1 m, leg. M. NUNBERG (coll. Forest Research Inst.).

Podlasie Lowland: Knyszyńska Forest, distr. Supraśl, comp. 105 (FE50), 31 V 1980, 1 f, reared from *Quercus robur*, leg. et coll. JG; distr. Żednia, comp. 167k (FD68), mixed coniferous forest, 9 VI – 13 VII 2008, 1 m in window trap, leg. et coll. RP.

Białowieża Primeval Forest: „Michnówka” reserve, comp. 572B (FD73), 21 VI 1985, 1 f, leg. et coll. JG; „Lipiny” reserve ad Hajnówka, comp. 272D (FD74), 26 V 1981, 1 m, reared from larvae under bark of stem of *Quercus petraea* (MATT.) LIEBL. (8 cm in diameter) collected on 3 II 1980, leg., cult. et coll. JG; Gruszki (FD85), 28 VII 1986, 1 f in pupal chamber on *Q. robur* (0.5 m in diameter), leg. P. STOLZMANN, coll. DK; ad Stara Białowieża, comp. 424A (FD84), 23 V 1983, 1 f, reared from larvae under bark of *Picea abies*, leg., cult. et coll. JG; Kosy Most (FD95), comp. 130D, 16 VI 1988, 1 m, on *Q. robur*, leg. et coll. DK; Białowieża N.P., comp. 340C, (FD94), 16 VII 1979, 1 f and 1 m ex pupa, un-

der bark of *Carpinus betulus*, leg., cult. et coll. JG; Białowieża N.P., comp. 340 (FD94), 22 V 1980, 1 m ex larva, reared from branch on lying *Acer platanoides*, leg., cult. et coll. JG; „Wysokie Bagno” reserve ad Białowieża, comp. 476A (FD94), 25 V 2005, 1 f and 1 m, comp. 477A (FD94), 3 VI 2006, 1 f, reared from thin branch of *Alnus glutinosa*, leg., cult. et coll. RP; Czerlonka (FD84), 19 VI 1997, 1 f, leg. et coll. MM. **Lower Silesia:** Henryków (XS41), 12 VIII 2009, 1 f, reared from *Fagus sylvatica* L. twig IV 2010, leg. G. TARWACKI, cult. JH; Wrocław-Wojnow (XS46), 4 VI 1998, 2 m and 2 f, on branches of a fallen *Quercus* sp., leg. et coll. MW; Śmiechowice (XS94), 20 VIII 2009, 1 f, reared from *Q. robur* twig II 2010, leg. and cult. JH. **Trzebnickie Hills:** Oborniki Śląskie (XS38), 7 V 1979, 1 m, reared from a bark of *Quercus* sp., leg. et cult. J. ŁUGOWOJ, coll. JG. **Upper Silesia:** Dulowska Forest, Dulowa (CA95), 20 VI 1982, 1 f, leg. JM [ISEA], 8 V 1986, 1 f, under bark of *Quercus* sp., leg. R. KRÓLIK, coll. DK. **Kraków-Wieluń Upland:** Kraków-Wola Justowska (DA14), 25 V 1879, 1 f, leg. SS [ISEA]; Kraków-Bielany (DA14), ca. 1900, 1 m, leg. MR [ISEA]; Kraków-Las Wolski (DA14), 4 VII 1937, 1 m, leg. S. POPEK [ISEA], comp. 29, 29 V 1987, 2 m and 4 f ex pupa, oak branch (20 cm in diameter), leg. et coll. DK; Kraków, Skalki Twardowskiego (DA14), 1 V 1990, 1 f, under bark of *Acer platanoides*, leg. et coll. DK; Kraków-Zwierzyniec (DA14), 2 VII 1990, 1 f, leg. J. PAWŁOWSKI [ISEA]; Ojców N.P. (DA16), comp. 17, 19 VII 1988, 1 f, under bark of *A. platanoides*, leg. BW, coll. DK (published as *L. nebulosus* – KUBISZ & PAWŁOWSKI 1998). **Małopolska Upland:** Łódź (CC93), VII 1983, 1 m, leg. C. Watała, coll. JG; Łaznów (DC12) ad Łódź, 19 V 1993, 1 m, leg. et coll. TM; Jeleń (DC30), 1 m, X 1998, ex larva, leg., cult. et coll. JK; Chrzemce (DC31) ad Tomaszów Mazowiecki, 15 II 1995, 2 m, reared from *Populus tremula*, 3 VI 1993, 1 m, 19 VI 1995, 1 f, 28 VI 1997, 4 m and 3 f, from twigs of *P. tremula* (collected with *Leiopus punctulatus* (Payk.)), leg., cult. et coll. JK; Spała (DC40), V 1993, 1 m and 2 f, 4 V 1994, 1 m, 13 V 1994, 1 m and 2 f, 27 XI 1994, 3 m and 1 f, VI 1996, 1 f, reared from *Carpinus betulus*, III 1998, 2 f, leg., cult. et coll. JK; Konewka (DC41), 5-6 VI 1987, 2 m, 5 VI 1988, 2 m and 2 f, 28 XI 1994, 2 f, reared from *Quercus* sp., leg., cult. et coll. JK; Białobrzegi Radomskie (DC92), 3 V 1989, 1 f, reared from a pupa found on 30 IV 1989 in a dead branch of *Quercus* sp., IV 1990, 1 m and 1 f, reared from a pupa found on 21 IV 1990 under a bark of *Quercus* sp. branch, leg., cult. et coll. MW; Błeszno (DC91) ad Radzanów, 8 II 2008, 1 m, reared from a larva found on 20 I 2008 under a bark of a dead *P. tremula* branch, leg., cult. et coll. MW; Meszcze (DB19), 3-7 VI 1993, 2 m and 1 f, leg. et coll. JK; Józefów (DB25) ad Przedbórz, 4-11 I 2010, 5 f and 3 m ex larva, reared from branch of *Q. robur* (2.5 cm in diameter), leg., cult. et coll. RP; Błogie (DB29), 19 VI 1993, 1 m, leg. et coll. JK; Kołków (DA69) ad Pińczów, 18 V 1994, 1 m, leg. et coll. MB; Gacki (DA79) ad Pińczów, 19 IV 2010, 1 m collected on the bark of *Fagus sylvatica*, leg. T. JAWORSKI, coll. RP; Radom-Las Kapturski (EB09), 20 III 1997, 1 m, reared from branch of *Aesculus hippocastanum* L. collected on 1 III 1997, leg., cult. et coll. MM; Radom-Las Kapturski, 16 II 1997, 1 m, reared from branch of *Quercus* sp. collected on 7 XI 1996, leg., cult. et coll. MM; Radom-Las Kapturski, 21 IV 1999, 1 f, reared from branch of *Quercus rubra* L. collected on 9 IV 1999, leg., cult. et coll. MM; Radom-

Las Kapturski, 16 II 1997, 1 m, reared from branch of *Ulmus laevis* PALL., collected on 14 I 1997, leg., cult. et coll. MM; Radom-Wincentów (EC10), 24 I 1998, 1 f, reared from branch of *Malus domestica* BORKH. collected on 27 XII 1997, leg., cult. et coll. MM; „Wsola”-Wielogóra (EC10), 31 I 1998, 1 m, reared from branch of *Quercus* sp. collected on 3 I 1998, leg., cult. et coll. MM; Natolin (EB19) ad Radom, 9 II 2003, 1 m, reared from branch of *Juglans regia* L. collected on 27 XII 2002, leg., cult. et coll. MM; Kozienna Forest, Lesiów (EC10), 11 IV 1999, 1 f, reared from branch of *Sorbus aucuparia* L. collected on 27 III 1999, leg. et coll. MM; Orońsko (DB98), 17 III 2000, 1 m, reared from stem of *Alnus* sp. collected on 24 II 2000, leg., cult. et coll. MM; Urbanów (EC01), 6 VI 1998, 1 m, leg. et coll. MM; Radom-Borki (EB09), 16 V 1997, 1 m, reared from branch of *Juglans regia* collected on 2 IV 1997, leg., cult. et coll. MM; Wola Owadowska (EC10), 12-15 I 1996, 2 m and 1 f, reared from branch of *A. hippocastanum* collected on 6 XII 1995, leg., cult. et coll. MM; Radom-Pruszków (EB08), 17 V 1999, 1 f, reared from branch of *Corylus avellana* collected on 27 IV 1999, leg., cult. et coll. MM. **Świętokrzyskie Mts.:** Bielnik (DB93) ad Wola Szczygiełkowa, 16 VI 1993, 1 m, leg. et coll. TM. **Lubelska Upland:** Serniawy (FB69), 1 V 1997, 3 m and 6 f, reared from *Acer pseudoplatanus* L. (collected with *Leioderus kollari* (L. REDTB.)), leg., cult. et coll. JK; Macoszyn (FB79), 20 III 1995, 1 m, leg. et coll. JK; Majdan Stuleński (FB89) ad Włodawa, 29 V 1997, 1 m, leg. et coll. MB; Witków (GB10), 1 V 1997, 1 f ex larva, leg., cult. et coll. JK. **Roztocze:** Obroc (FB40) ad Zwierzyniec, 11 VII 1986, 2 f, leg. et coll. JG; „Czerkies” reserve (FB40), 24 VII 1986, 1 f, reared from lying branch of *C. betulus*, leg. et coll. JG. **Sandomierska Lowland:** Niepołomicka Forest, Kłaj (DA53), 22 VI 1904, 1 m, leg. MR [ISEA], Ispina (DA55), 10 V 1985, 3 f, leg. S. SZAFRANIEC, coll. DK; Sobów ad Tarnobrzeg (EB50), 4-6 VII 2003, 1 m, leg. et coll. TM; Wałki (EA14) ad Dębica, 17 II 1993, 1 m ex. cult. 10 III 1993, leg. and coll. JH; Pawłosiów (FA13) ad Jarosław, 30 V 1889, 1 m, leg. SS [ISEA]; Jarosław (FA24), 1-5 VII 1890, 1 m, leg. SS [ISEA]. **Western Beskidy Mts.:** ad Cieszyn (CA21), 1874-1882, 1 f and 1 m, leg. BK [ISEA]. **Eastern Beskidy Mts.:** Warzyce (EA31), 20 IV 2009, 1 f and 1 m, reared from *Q. robur* twigs 19 II 2010, leg. et coll. JH; Przemyśl-Prałkowce (FA21), 1878, 2 m and 1 f, leg. BK [ISEA]; Przemyśl-Ostrów (FA21), 31 V 1879, 2 f, leg. BK [ISEA]; Przemyśl (FA21), 11 VI 1884 and 15 VII 1887, 2 m and 2 f, leg. BK [ISEA]; Przemyśl vic., 2 m and 4 f, leg. T. TRELLA [ISEA] (published as *L. nebulosus* – TRELLA 1925). **Pieniny Mts.:** Sromowce Niżne (DV47), 14 VI 2002, 1 m, leg. W. KUBASIK, coll. MB; Sromowce Kały (DV47), 23 V 2003, 1 m, leg. R. WAŚALA, coll. MB.

Austria

Perchtoldsdorf ad Wien, end of 19th century, 1 m, leg. F. SMOLIK, coll. H. LGOCKI [ISEA]; Baden ad Wien, 7 VII 1888 and 9 VI 1889, 3 f, leg. BK [ISEA].

Belarus

Białowieża Primeval Forest, 11 VII 1995, 1 f and 1 m, leg. et coll. JG; Hrodna [Grodno], 19, 25 and 28 VI 1932, 3 f and 1 m, coll. ISEA.

Bulgaria

Rabisha ad Vidin, 9 VI 1994, 1 f, leg. et coll. TM.

Lithuania

Vilnius [Wilno], ca. 1880, 2 f, leg. E. WRÓBLEWSKI [ISEA].

Slovakia

Slovensky Kras Mts. ad Hrhov, 11 VI 2000, 2 f, leg. et coll. MB.

Ukraine

Lviv [Lwów], 30 V – 19 VI 1875, 12 f and 3 m, leg. BK [ISEA], 20-27 VI 1884, 27 VI 1885 and 18 VI 1886, 2 m and 4 f, leg. SS [ISEA], 2 VI 1994, 1 f, leg. DK [ISEA]; Vorotsiv [Wroców] ad Lviv, 10 VI 1934, 1 f, leg. I. ROMANISZYN [ISEA]; Briuchovytsi (Brzuchowice) ad Lviv, 1 VII 1941, 1 m, leg. M. KŁAPACZ, coll. JG; Ternopil [Tarnopol], 12 m and 12 f, leg. MR [ISEA] (published as *L. nebulosus* – RYBIŃSKI 1903); Czornohora Range, Kizi [Czarnohora], 1898-1900, 1 f, leg. MR [ISEA]; Obizhova [Obizowa] ad Zalishtshyky, 5 VI 1935, 5 m and 3 f, leg. SS & S. TOLL [ISEA]; Lysychnyky [Lesieczniki] ad Zalishtshyky, 7-25 VI 1935, 62 m and 51 f, leg. SS [ISEA]; Prylypche [Prelipcze] ad Horodenka, 30 V 1877, 1 m, leg. SS [ISEA]; Medobory Region, Krutiliv, 4 VI 1993, 1 f, leg. M. MAZUR [ISEA] (published as *L. nebulosus* – KUBISZ et al. 1998); Kitayhorod ad Kamianets Podils'kiy, 24 VI 1996, 1 f, leg. M. MAZUR [ISEA] (published as *L. nebulosus* – KUBISZ et al. 1998); Lomachyntsi ad Mohyliv Podils'kiy, 4 VI 1997, 1 m and 1 f, leg. DK [ISEA]; E Podillia: Sokolivka ad Uman', end of 19th century, 4 m and 4 f, coll. KAMIE-NIECKI [ISEA]; Crimea: Krasnogvardeiskoe, 7-10 VII 2009, 1 f, leg. S. TYLKOWSKI, coll. TM.

DISCUSSION

Among species characters of *L. linnei* and *L. nebulosus*, presented by WALLIN et al. (2009), some are very variable and hard to implement. We recommend as the best characters enable correct determination of the species; in case of males – shape of the top of aedeagus, shape of parameres and hair cover of 8th tergite; in case of females – hair cover of last visible abdominal sternite and shape of spermatheca. It means that females could be determined without dissection of genitalia, what is necessary in case of males. It is worth to

mention that specimens with spermathecae shape in between of the two species are recorded sporadically.

According to our observations *Leiopus nebulosus* develops on: *Alnus glutinosa*, *Corylus avellana*, *Quercus robur*, *Padus avium*, *Picea abies*, *Tilia cordata*. The preferences to any of those host plants species have been noticed in contradiction to preferences to *Corylus* observed in Scandinavia (WALLIN et al. 2009). *Padus avium* and *Picea abies* haven't been recorded as host plants of the species so far.

Leiopus linnei has been recorded on: *Acer negundo*, *A. platanoides*, *A. pseudoplatanus*, *Aesculus hippocastanum*, *Alnus glutinosa*, *Carpinus betulus*, *Corylus avellana*, *Fagus sylvatica*, *Juglans regia*, *Malus domestica*, *Padus avium*, *Picea abies*, *Pinus sylvestris*, *Populus tremula*, *Quercus petraea*, *Q. robur*, *Q. rubra*, *Rhus typhina*, *Salix caprea*, *Sorbus aucuparia*, *Ulmus laevis*. Except species of *Quercus* and *Acer*, other species are new host plants for *L. linnei*. Most probably there are much more host plants and further research will increase their number. According to current knowledge the main host plants of the larvae of *L. linnei* are deciduous species and among them most common are oaks. The species is rare on *A. negundo*, *P. tremula* and *R. typhina*, and very sporadically on conifers.

The length of 49 specimens of *L. linnei* (25 m, 24 f) originated mainly from Małopolska Upland and Lubelska Upland has been measured. Average length measured 9.16 mm (males – 9.22, females – 9.10 mm); the smallest specimen – 6.94 mm (female), the big gets one – 11.39 mm (male). Average length of specimens from Poland is distinctly higher than in specimens from Scandinavia (WALLIN et al. 2009: 7.83 mm – males, 8.21 – females).

Leiopus nebulosus has been recorded as new for Poland (Fig. 1), Austria and Ukraine. We have considered that the data on occurrence of the species included in Catalogue of Palaearctic Coleoptera (SAMA & LÖBL 2010) concerning *L. nebulosus s. lato*. In our work we have based on data after redescription (WALLIN et al. 2009, BERGER 2009, DRUMONT & WALLIN 2009).

Leiopus linnei has been recorded for the first time from Lithuania, Belarus and Ukraine.

Both species are commonly recorded from Poland, however *L. linnei* is more widespread and abundant. *Leiopus linnei* has been recorded from 19 geographical regions from 84 locations, and *L. nebulosus* from 15 regions and 36 locations (Figs 1, 2). According to the current knowledge the species are sympatric in Europe but the real distribution of these two species could be finally assessed only after revision of all collections of *L. nebulosus s.l.*, especially those from the outer regions of Europe (Spain, Kazakhstan) and from out of the continent (Caucasus, Asia Minor).

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