

## DATA ON THE DISTRIBUTION OF *COLIAS PALAENO* (LINNAEUS 1761) (LEPIDOPTERA, PIERIDAE) IN LITHUANIA

DALIUS DAPKUS<sup>1</sup>, GIEDRIUS ŠVITRA<sup>2</sup>

<sup>1</sup>Department of Biology and Science Education, Lithuanian University of Educational Sciences, Studentų 39, LT-08106 Vilnius, Lithuania. E-mail: dalius.dapkus@vpu.lt

<sup>2</sup>Lithuanian Entomological Society, Akademijos 2, LT-08412 Vilnius, Lithuania. E-mail: giedsvis@gmail.com

### Introduction

*Colias palaeno* is a tyrphobiontic species closely associated with peat bogs in Europe (Mikkola & Spitzer, 1983). It is widely distributed in Northern Europe, while it is absent or very rare in peat bogs located in mountains in southern latitudes (Kudrna, 2002). E.g., *C. palaeno* is a protected species in Poland decreasing due to exploitation of peat, overgrowth of bogs and felling of marshy coniferous forests (Głowaciński & Nowacki, 2004).

The aim of this article is to provide data on distribution of *Colias palaeno* in Lithuania.

### Material and Methods

The data was collected during field studies in peat bogs and adjacent habitats of Lithuania by D. Dapkus (D.D.) and G. Švitra (G.Š.) in 1994–2011 using standard entomological methods. Some data was presented by V. Bačianskas (V.B.), R. Ferenc (R. F.), B. Gliwa (B.G.), R. Kazlauskas (R.K.), V. Monsevičius (V.M.), V. Pacevičius (V.P.) and V. Uselis (V.U.). Some data was gathered by students of Vilnius University and Lithuanian University of Educational Sciences (J. Lučun (J.L.), A. Rudminaitienė (A.R.) and B. Paulavičiūtė (B.P.)), as well as Danish entomologists K. Dahl (K.D.) and A. L. Viborg (A.L.V.).

The material is preserved in the collections of Vilnius University, Lithuanian University of Educational Sciences and personal collections of G. Švitra and V. Bačianskas.

### List of localities

Akmenė district	Kamanos Nat. R.	56°18'42,4"N, 22°38'32,0"E
Alytus district	Žuvintas Nat. R. (1)	54°29'49,8"N, 23°40'05,5"E
	Žuvintas Nat. R. (2)	54°28'18,3"N, 23°33'46,8"E
Anykščiai district	Juodkalnio Miškas f.	55°40'12,4"N, 25°25'11,3"E
	Paraisčio Durpynas bog	55°32'45,2"N, 24°56'48,6"E
Biržai district	Biržų Giria f.	56°16'44,6"N, 24°56'39,3"E
Ignalina district	Ginučiai	55°23'00,9"N, 25°59'52,3"E
	Gilutis lake env.	55°26'17,6"N, 26°08'23,1"E
	Pabaluošė	55°23'59,2"N, 26°03'28,1"E
	Švedriškė	55°29'33,4"N, 26°04'17,4"E

	Švogina env.	55°24'08,4"N, 26°05'54,0"E
	Adutiškis telmological reserve (1)	55°15'54,6"N, 26°43'40,0"E
	Adutiškis telmological reserve (2)	55°15'38,5"N, 26°43'18,3"E
	Adutiškis telmological reserve (3)	55°16'17,9"N, 26°41'58,9"E
	Adutiškis telmological reserve (4)	55°16'09,4"N, 26°42'32,1"E
Jonava district	Rūkla military training ground	55°00'56,1"N, 24°23'21,2"E
	Gaižiūnai	55°01'41,8"N, 24°20'10,3"E
	Gaižiūnų Miškas f.	54°59'04,2"N, 24°20'48,8"E
Kaišiadorys district	Palraistis telmological reserve	54°57'49,1"N, 24°23'10,6"E
Kelmė district	Pakėvis, lake Miškinis env. (1)	55°41'37,6"N, 22°49'52,1"E
	Pakėvis, lake Miškinis env. (2)	55°41'35,0"N, 22°49'47,5"E
	Sargeliai	55°28'33,9"N, 23°27'40,9"E
Kupiškis district	Kepurnės Pelkė bog	55°46'23,0"N, 25°13'55,4"E
	Notigalė telmological reserve	55°56'16,3"N, 25°17'18,9"E
	Notigalės Miškas f.	55°56'14,5"N, 25°16'27,6"E
	Sakonių balos telmological reserve	55°45'06,3"N, 25°11'53,0"E
Mažeikiai district	Plinkšiai B. P. (1)	56°06'18,4"N, 22°12'38,4"E
	Plinkšiai B. P. (2)	56°06'20,7"N, 22°13'05,1"E
	Sedos Giria f.	56°14'19,8"N, 22°08'09,3"E
Molėtai district	Suginčiai	55°20'20,3"N, 25°31'25,0"E
	Vidugiris env.	55°14'24"N, 25°42'21"E
Panevėžys district	Pašilių Miškas f. (1)	55°32'55,0"N, 24°13'09,1"E
	Pašilių Miškas f. (2)	55°32'22,5"N, 24°13'57,5"E
	Stumbriškis	55°51'44,3"N, 24°35'04,0"E
	Vabalninko Miškas f.	55°53'01,0"N, 24°34'34,0"E
	Žalioji Giria botanical-zoological reserve	55°53'07,0"N, 24°32'01,0"E
Plungė district	Jockiai, 1 km to the South	56°06'50,4"N, 21°50'35,2"E
	Šarnelė	56°07'50,8"N, 21°56'06,3"E
	Rukundžiai reserve	56°00'53,2"N, 21°58'52,4"E
	Užpelkiai telmological reserve	56°04'56,2"N, 21°49'49,4"E
Radviliškis district	Liaubarai	55°29'24,7"N, 23°28'24,7"E
	Praviršulio tyrulis telmological reserve (1)	55°30'58,3"N, 23°26'19,0"E
	Praviršulio tyrulis telmological reserve (2)	55°30'34,2"N, 23°26'00,0"E
	Praviršulio tyrulis telmological reserve (3)	55°30'22,2"N, 23°26'33,4"E
	Praviršulio tyrulis telmological reserve (4)	55°30'26,8"N, 23°27'41,7"E
Rokiškis district	Rogsalos Miškas f.	56°09'24,3"N, 25°12'20,3"E
Šalčininkai district	Gauja river valley	54°10'53,3"N, 25°39'50,1"E
	Kernavas telmological reserve	54°23'09,3"N, 25°07'49,7"E
Šilalė district	Požerė	55°38'08,4"N, 22°18'09,7"E
	Plynosios Pelkė bog	55°19'25,2"N, 22°09'01,8"E
Širvintos district	Alionių Pelkė bog (1)	55°00'59,4"N, 25°10'13,4"E
	Alionių Pelkė bog (2)	55°02'18,3"N, 25°09'20,6"E

	Bartkuškis telmological reserve	54°54'07,8"N, 24°58'42,6"E
	Graužių Miškas f. (1)	54°58'42,5"N, 25°00'55,6"E
	Graužių Miškas f. (2)	54°58'16,4"N, 25°00'34,1"E
	Jauniūnų Pelkė bog	54°57'09,5"N, 25°01'00,5"E
	Lygiaraistis telmological reserve	54°59'55,5"N, 24°39'37,2"E
	Šešuolėliai	55°04'07,2"N, 25°05'53,1"E
	Šešuolėlių Pelkė bog	55°05'09,1"N, 25°04'32,5"E
	Vaiškūnų Pelkė bog	55°05'56,3"N, 24°47'29,7"E
Švenčionys district	Algirdėnai telmological reserve	54°54'37,9"N, 25°44'41,7"E
	Baltasamanė Bog	54°57'14,6"N, 25°55'22,1"E
	Durpynas Baluoša peatland	54°53'44,2"N, 25°48'10,1"E
	Gelednė telmological reserve	54°58'13,0"N, 26°02'15,9"E
	Perūnas telmological reserve	54°58'58,5"N, 25°56'31,5"E
	Lake Salaičiai env.	55°14'36,4"N, 25°51'53,7"E
	Tramiai	55°13'14,3"N, 25°39'55,6"E
Tauragė district	Artosios Pelkė bog	55°08'58,2"N, 22°25'55,2"E
	Laukėsos Durpynas peatland	55°08'38,5"N, 22°16'31,3"E
	Varniai	55°44'54,8"N, 22°21'30,1"E
Trakai district	Ilgelių Pelkė bog	54°38'38,1"N, 24°58'12,2"E
Ukmergė district	Andreikiškio Miškas f.	55°10'01,0"N, 25°00'50,5"E
	Atkočių Pelkė bog	55°15'40,1"N, 24°34'06,4"E
	Bajorų Miškas f.	55°08'00,9"N, 25°06'23,9"E
	Beržalotas I Pelkė bog	55°11'21,2"N, 25°00'09,5"E
	Pagojė	55°14'04,2"N, 24°41'29,4"E
	Gaiveniai	55°21'20,2"N, 24°44'41,0"E
	Girelė (1)	55°11'10,5"N, 25°00'08,3"E
	Girelė (2)	55°11'42,6"N, 25°00'42,3"E
	Kazimieravo Pelkė bog (1)	55°11'24,3"N, 25°00'48,1"E
	Kazimieravo Pelkė bog (2)	55°11'23,8"N, 25°00'31,3"E
	Kertušas bog (1)	55°08'23,1"N, 24°54'06,8"E
	Kertušas bog (2)	55°08'23,7"N, 24°54'04,5"E
	Laukėnai telmological reserve (1)	55°11'33,8"N, 25°03'52,0"E
	Laukėnai telmological reserve (2)	55°11'41,9"N, 25°03'39,7"E
	Šešuolių Giria f.	55°11'42,6"N, 25°00'42,3"E
	Verškainių Miškas f.	55°10'19,9"N, 24°54'23,8"E
Utena district	Daunorių Pelkė bog	55°26'09,4"N, 25°58'36,9"E
	Paalsuodė I, Pliaušketės	55°18'49,9"N, 25°48'37,5"E
Varėna district	Čepkelių Raistas bog (1)	54°01'05,5"N, 24°26'02,1"E
	Čepkelių Raistas bog (2)	54°01'38,3"N, 24°35'42,5"E
	Čepkelių Raistas bog (3)	53°59'42,4"N, 24°34'13,5"E
	Marcinkonių Miškas f.	54°04'21,9"N, 24°24'38,1"E
	Musteika	53°56'48,9"N, 24°23'37,0"E
	Musteikos Pelkė bog	53°56'09,2"N, 24°22'52,8"E
Vilnius district	Giedraitiškės	54°51'38,9"N, 25°10'46,2"E
Zarasai district	Gražutės Miškas f.	55°41'14,2"N, 26°11'08,0"E
	Paruožė	55°41'33,7"N, 26°11'02,8"E
	Palšinė	55°40'06,5"N, 26°08'15,6"E

## Results

Adutiškis telmological reserve (1–4), 16 06 2007, few spec. (G.Š.); Alionių Pelkė bog (1), 16 06 2001, 2 spec. (G.Š.), Alionių Pelkė bog (2), 11 06 1999, 4 spec. (D.D.), 21 06 2000, 2 spec. (D.D.); Algirdėnai telmological reserve, 01 06 2000, 1 spec. (D.D.), 22 06 2000, 3 spec. (D.D.); Andreikiškio Miškas f., 16 07 1996, 3 spec. (D.D.); Artosios Pelkė bog, 10 07 1994, 2 spec. (G.Š.); Atkočių Pelkė bog, 14 06 1990, 6 spec. (G.Š.); 05 06 1993, 2 spec. (G.Š.); Bajorų Miškas f., 17 06 1995, few spec. (G.Š.); Baltasamanė Bog, 01 06 2000, 8 spec. (D.D.); Bartkuškis telmological reserve, 23 05 2000, 2 spec. (D.D.), 21 06 2000, 6 spec. (D.D.); Beržalotas I Pelkė bog, 28 05 2000, 1 spec. (D.D.), 03 06 2000, 3 spec. (D.D.), 11 06 2000, 2 spec. (D.D.), 24 06 2000, 4 spec. (D.D.), 05 07 2000, 7 spec. (D.D.), 16 07 2000, 3 spec. (D.D.), 16 06 2001, 1 spec. (D.D.), 29 06 2001, 7 spec. (D.D.), 09 07 2001, 2 spec. (D.D.), 23 07 2001, 1 spec. (D.D.), 02 06 2002, 6 spec. (D.D.), 22 06 2002, 12 spec. (D.D.), 14 07 2002, 2 spec. (D.D.), 19 06 2005, 3 spec. (D.D.); Biržų Giria f., 28 06 2003, 2 spec. (G.Š.); Čepkelių Raistas bog (1), 15 06 1993, 2 spec. (R.F.), 13 06 2000, 1 spec. (D.D.), 17 06 2005, 4 spec. (D.D.); Čepkelių Raistas bog (2), 12 06 1999, 11 spec. (D.D.), 26 05 2000, 4 spec. (D.D.), 20 07 2000, 1 spec. (D.D.); Čepkelių Raistas bog (3), 26 05 2000, 22 spec. (D.D.), 13 06 2000, 14 spec. (D.D.), 14 06 2001, 8 spec. (D.D.), 29 05 2002, 3 spec. (D.D.); Daunorių Pelkė bog, 09 07 1999, 9 spec. (D.D.); Durpynas Baluoša peatland, 01 06 2000, 16 spec. (D.D.), 22 06 2000, 15 spec. (D.D.), 26 07 2000, 3 spec. (D.D.); Jauniūnų Pelkė bog, 10 07 2001, 1 spec. (D.D.); Jockiai, 14 06 2006, 1 spec. (G.Š.); Juodkalnio Miškas f., 29 06 1996, few spec. (G.Š.); Ilgelių Pelkė bog, 08 06 2001, 1 spec. (D.D.); Gaiveniai, 07 07 1995, 1 spec. (G.Š.); Gauja valley, 22 06 2005, 1 spec. (G.Š.); Gaižiūnai, 12 07 1999, few spec. (G.Š.); Gaižiūnų Miškas f. 05 07 2009, few spec. (V.B.); Gelednė telmological reserve, 24 06 1991, 2 spec. (G.Š.); Giedraitškės, 23 05 2000, 1 spec. (D.D.); Gilutis lake env., 18 06 2002, 1 spec. (G.Š.); Ginučiai, 14 07 1975, 1 spec. (R.K.), 25 07 1975, 1 spec. (R.K.); Girelė (1), 16 07 1987, 1 spec. (G.Š.); 18 06 1995, few spec. (G.Š.), Girelė (2), 18 06 1995, few spec. (G.Š.), Graužių Miškas f. (1), 06 07 1999, few spec. (G.Š.), Graužių Miškas f. (2), 04 06 2001, 1 spec. (D.D.), 10 07 2001, 1 spec. (D.D.); Gražutės Miškas f., 28 06 2011, 3 spec. (V.B.); Kamanos Nat. R., 24 05 1975, 11 spec. (A.R.), 07 07 1975, 20 spec. (A.R.), 25 06 1994, 5 spec. (G.Š.), 15 06 1998, 1 spec. (V.M.), 16 06 2000, 2 spec. (B.P.); Kazimieravo Pelkė bog (1), 03 06 2000, 5 spec. (D.D.); Kazimieravo Pelkė bog (2), 03 06 2000, 7 spec. (D.D.), 11 06 2000, 3 spec. (D.D.), 24 06 2000, spec. (D.D.); Kernavas telmological reserve, 18 06 2005, 5 spec. (D.D.), 01 07 2005, 1 spec. (J.L.), 17 07 2005, 1 spec. (J.L.); Kertušas bog (1), 19 06 1995, few spec. (G.Š.), 13 06 1999, 19 spec. (D.D.), 22 06 1999, 8 spec. (D.D.), 28 06 1999, 2 spec. (D.D.), 11 07 1999, 1 spec. (D.D.), 20 07 1999, 2 spec. (D.D.), 28 05 2000, 4 spec. (D.D.), 03 06 2000, 1 spec. (D.D.), 18 06 2000, 2 spec. (D.D.), 24 06 2000, 1 spec. (D.D.), 05 07 2000, 1 spec. (D.D.), 10 06 2001, 1 spec. (D.D.), 16 06 2001, 2 spec. (D.D.), 29 06 2001, 4 spec. (D.D.), 09 07 2001, 3 spec. (D.D.), 02 06 2002, 4 spec. (D.D.), 22 06 2002, 1 spec. (D.D.), 19 06 2005, 9 spec. (D.D.), Kertušas bog (2), 19 06 1995, few spec. (G.Š.); Kepurinės Pelkė bog, 02 06 2000, 2 spec. (D.D.); Laukėnai telmological reserve (1), 16 07 1987, few spec. (G.Š.), 20 06 1990, 2 spec. (D.D.), 17 06 1995, few spec. (G.Š.), 27 05 2000, few spec. (G.Š.); Laukėnai telmological reserve (2), 13 06 1999, 3 spec. (D.D.), 11 07 1999, 5 spec. (D.D.), 28 07 1999, 2 spec. (D.D.), 27

05 2000, 6 spec. (D.D.), 04 06 2000, 10 spec. (D.D.), 11 06 2000, 7 spec. (D.D.), 18 06 2000, 3 spec. (D.D.), 24 06 2000, 10 spec. (D.D.), 05 07 2000, 6 spec. (D.D.), 16 07 2000, 2 spec. (D.D.), 10 06 2001, 1 spec. (D.D.), 16 06 2001, 8 spec. (D.D.), 29 06 2001, 9 spec. (D.D.), 09 07 2001, 5 spec. (D.D.); Laukėsos Durpynas peatland, 09 07 1994, 1 spec. (G.Š.); Liaubarai, 04 06 2011, 2 spec. (B.G.); Lygiaraistis telmological reserve, 04 06 1998, few spec. (G.Š.); Marcinkonių Miškas f., 13 06 2000, 3 spec. (D.D.); Musteika, 11 06 2010, 6 spec. (V.B.); Musteikos Pelkė bog, 12 06 1999, 11 spec. (D.D.), 07 07 1999, 1 spec. (D.D.), 26 05 2000, 5 spec. (D.D.), 13 06 2000, 10 spec. (D.D.), 20 07 2000, 1 spec. (D.D.), 14 06 2001, 4 spec. (D.D.), 29 05 2002, 4 spec. (D.D.); Notigalė telmological reserve, 29 06 2003, 1 spec. (G.Š.); Notigalės Miškas f., 29 06 2003, 1 spec. (G.Š.); Paalsuodė I, Pliaušketės, 15 06 2011, 1 spec. (G.Š.); Pabaluošė, 18 06 2002, 1 spec. (G.Š.); Pagojė, 24 06 2000, 2 spec. (D.D.); Pakėvis, lake Miškinis env. (1–2), 05 06 2011, 1 spec. (G.Š.), 22 06 2011, 1 spec. (G.Š.); Palaraitis telmological reserve, 08 06 2007, 5 spec. (D.D.), 26 06 2007, 3 spec. (D.D.); Palšinė, 26 06 2010, 3 spec. (B.G.); Paraisčio Durpynas bog, 02 07 1996, 1 spec. (G.Š.); Paruožė, 26 06 2010, 1 spec. (B.G.); Pašilių Miškas f., 05 07 1995, few spec. (G.Š.); Pašilių Miškas f. (2), 30 06 2001, 1 spec. (G.Š.); Perūnas telmological reserve, 01 06 2000, 2 spec. (D.D.); Plinkšiai B. P. (1–2), 15 07 2009, 2 spec. (G.Š.); Plynosios Pelkė bog, 20 06 2005, 3 spec. (D.D.); Požerė, 27 06 1976, 6 spec. (V.P.), 02 07 1976, 3 spec. (V.P.); Praviršulio tyrulis telmological reserve (1–3), 23 06 2007, 1 spec. (B.G.), 07 07 2008, 1 spec. (B.G.), 09 06 2009, 2 spec. (B.G.), 27 06 2011, 1 spec. (B.G.); Praviršulio tyrulis telmological reserve (4), 08 06 1996, few spec. (G.Š.); Rogsalos Miškas f., 05 06 2011, 1 spec. (V.B.); Rukundžiai reserve, 25 06 2007, few spec. (G.Š.); Rūkla military polygon, 12 07 1999, few spec. (G.Š.); Sakonių balos telmological reserve, 02 06 2000, 2 spec. (D.D.); lake Salaičiai env., 17 06 2007, few spec. (G.Š.), 16 06 2011, ~15 spec. (K.D. & A.L.V.); Sargeliai, 05 07 2009, 1 spec. (B.G., V.U.); Sedos Giria f., 15 07 2009, 1 spec. (G.Š.); Suginčiai, 21 06 1975, 15 spec. (V.P.), 07 07 1978, 15 spec. (V.P.); Stumbriškis, 27 06 2003, 1 spec. (G.Š.); Šarnelė, 05 07 2006, 1 spec. (G.Š.); Šešuolėliai, 30 06 1997, 1 spec. (R.K.); Šešuolėlių Pelkė bog, 24 05 2000, 4 spec. (D.D.), 21 06 2000, 1 spec. (D.D.), 05 07 2000, 4 spec. (D.D.), 16 06 2001, 6 spec. (D.D.), 29 06 2001, 5 spec. (D.D.), 10 07 2001, 3 spec. (D.D.), 19 06 2005, 5 spec. (D.D.); Šešuolių Giria f., 18 06 1995, few spec. (G.Š.); Švedriškė, 13 07 1977, 1 spec. (V.P.); Švogina env., 18 06 2002, 1 spec. (G.Š.); Tramiai, 23 06 1977, 5 spec. (V.P.), 25 06 1977, 1 spec. (V.P.); Užpelkiai telmological reserve, 01 07 2004, few spec. (G.Š.); Vabalninko Miškas f., 17 06 1999, 1 spec. (V.B.), 17 06 2003, few spec. (V.B.); Vaiškūnų Pelkė bog, 14 06 2001, 1 spec. (G.Š.); Varniai, 28 06 1976, 7 spec. (V.P.); Verškainių Miškas f., 19 06 1995, 1 spec. (G.Š.); Vidugiris env., 15 06 2011, 1 spec. (K.D. & A.L.V.); Žalioji Giria botanical-zoological reserve, 23 06 2004, 1 spec. (V.B.); Žuvintas Nat. R. (1), 14 06 2000, 8 spec. (D.D.), 06 06 2001, 1 spec., (D.D.), 04 07 2001, 2 spec., (D.D.); Žuvintas Nat. R. (2), 14 06 2000, 2 spec. (D.D.).

## Discussion

The first data of *Colias palaeno* in Lithuania was presented from Ežerėlis (Kaunas district), Juodupė (Rokiškis district), Žuvinto Palios bog (Alytus district), as well as Šančiai (suburb of Kaunas) by A. Palionis (1932). The author mentioned that this species

was registered in Šiauliai environs by S. Claaszen and Žuvinto Palios bog by O. I. Elleder. W. Straszewicz registered *C. palaeno* in Upytė environs (Panevėžys district) in 1914–1932 and described it in his manuscript (Straszewicz, 1932). Some data was presented by J. Prüffer (1947) who recorded *C. palaeno* in Vilnius environs (bogs close to Medynai, Gulbinai and Kalinas, and along the Žeimena river), as well as in Rūdninkai Giria forest and Viktoriškės (Šalčininkai district).

Later studies showed that *C. palaeno* is locally distributed in peat bogs and their margins in Lithuania (Kazlauskas, 1984; Ivinskis, 1993, 1998; Ivinskis et al., 1997; Ivinskis & Augustauskas, 2004; Gliwa & Šeškauskaitė, 2008; Dapkus, 2010). It was registered from the 19 administrative districts of Lithuania (Ivinskis, 2004), but our results showed wider distribution of *C. palaeno* in Lithuanian peat bogs (Figure 1). Additional studies should be carried out in western and south-western parts of Lithuania.

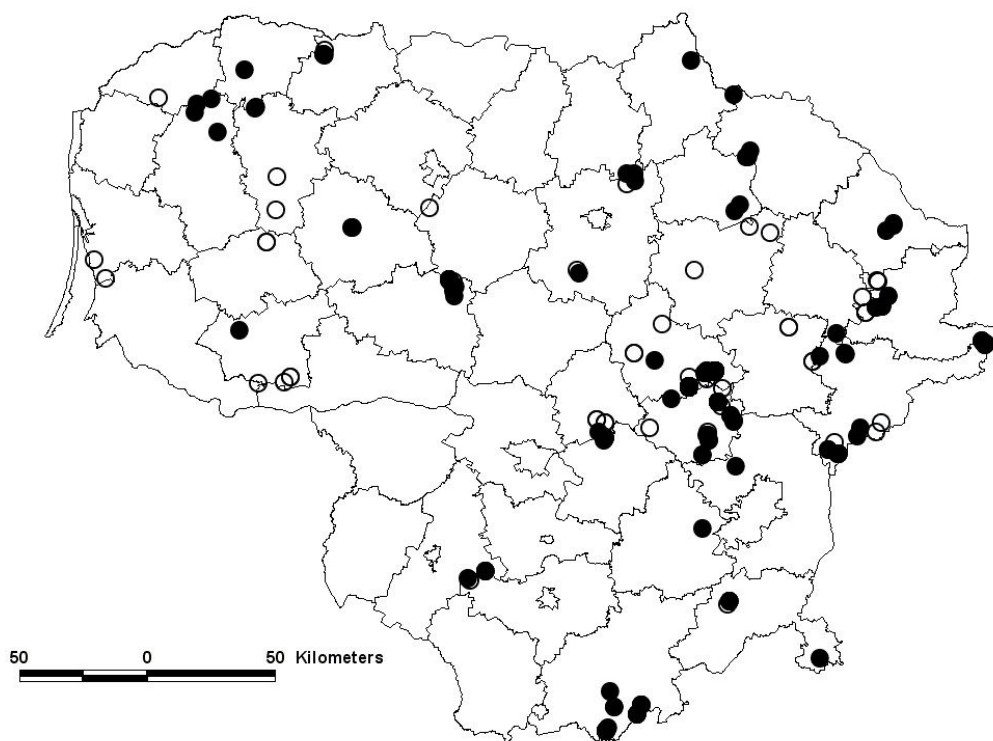


Figure 1. The distribution of *Colias palaeno* in Lithuania. ○- finding places before 2000; ● - known populations after 2000

A. Palionis (1932) indicated that the flight period of *C. palaeno* was from the end of May till the end of July (the latest record was on the 25 of July, 1929), while J. Prüffer (1947) wrote that the earliest record of *C. palaeno* was at the end of May (26 05 1918, leg. B. Houwalt) and the latest at the beginning of July (08 07 1931). Our earliest observation was on the 23 of May, 2000, so it coincides with the published data. P. Ivinskis & J. Augustauskas (2004) mentioned that *C. palaeno* could be found flying at the beginning of August, but our latest record was on the 26 of July, 2000.

*C. palaeno* is one of the stenotopic lepidopteran species living in Lithuanian peat bogs. It is mainly found in Labrador tea Scots pine bog woods (*Ledo-Pinetum*

association) overgrown with dense *Vaccinium uliginosum* shrubs, as caterpillars feed on the latter plant species. Adult butterflies avoid open bogs or shadowed margins of bogs. Drainage of Lithuanian peatbogs during the XXth century has a negative impact up to now leading to vegetation and insect communities' change. Global warming could negatively affect cool habitats such as peat bogs and species living there (Van Swaay et al., 2010), so *C. palaeno* is among species at risk and there is a need to monitor its populations in Lithuania.

## References

- Dapkus D. 2010. Check-list of butterflies and moths of the Notigalė bog (Northern Lithuania). *New and Rare for Lithuania Insect Species* 22: 91–100.
- Gliwa B., Šeškauskaitė D. 2008. Rare species of Lepidoptera and Odonata recorded from the environments of lake Praviršulis (Central Lithuania) in 2007–2008. *New and Rare for Lithuania Insect Species* 20: 64–68.
- Głowaciński Z., Nowacki J. (eds). 2004. Polish Red Data Book of Animals. Available from <http://www.iop.krakow.pl/pckz/> (Accessed October 02, 2011).
- Ivinskis P. 1993. *Check-list of Lithuanian Lepidoptera. Lietuvos drugių sąrašas*. Vilnius.
- Ivinskis P., Uselis V., Dapkus D. 1997. Drugiai (Lepidoptera). In: *Lietuvos valstybinių rezervatų flora ir fauna [Flora and fauna of Lithuanian strict nature reserves]*. Vilnius, 103–133.
- Ivinskis P. 1998. Butterflies (Lepidoptera, Rhopalocera) of Lithuania: fauna, distribution and protection. *Acta Zoologica Lituanica* 8 (3): 9–22.
- Ivinskis P. 2004. *Lepidoptera of Lithuania*. Vilnius.
- Ivinskis P., Augustauskas J. 2004. *Lietuvos dieniniai drugiai [Butterflies of Lithuania]* Kaunas.
- Kazlauskas R. 1984. *Lietuvos drugiai [Butterflies and moths of Lithuania]*. Vilnius: Mokslas.
- Kudrna O. 2002. The Distribution Atlas of European Butterflies. *Oedippus* 20: 1–342.
- Mikkola K., Spitzer K. 1983. Lepidoptera associated with peatlands in central and northern Europe: a synthesis. *Nota lepid.* 6 (4): 216–229.
- Palionis A. 1932. *Įdėlis Lietuvos drugių faunai pažinti. Beitrag zur Kenntniss der Lepidopterenfauna Litauens*. Kaunas.
- Prüffer J. 1947. *Studia nad Motylami Wilenszczyzny*. Torun.
- Straszewicz W. 1932. *Gatunki i formy motyli dziennych (Rhopalocera), znalezione w okolicach Poniewieża*. Manuscript.
- Van Swaay C.A.M., Harpke A., Van Strien A., Fontaine B., Stefanescu C., Roy D., Maes D., Kühn E., Öunap E., Regan E.C., Švitra G., Heliölä J., Settele J., Musche M., Warren M.S., Plattner M., Kuussaari M., Cornish N., Schweiger O., Feldmann, R., Julliard R., Verovnik R., Roth T. Brereton T. & Devictor, V. 2010. *The impact of climate change on butterfly communities 1990–2009*. Report VS2010.025, Butterfly Conservation Europe & De Vlinderstichting, Wageningen.

**Duomenys apie *Colias palaeno* (Linnaeus 1761) (Lepidoptera, Pieridae) paplitimą Lietuvoje**

*D. DAPKUS, G. ŠVITRA*

**Santrauka**

Straipsnyje pateikiami apibendrinti literatūros šaltiniuose skelbti ir autorių 1994–2011 metais Lietuvoje surinkti duomenys apie aukštapelkėms priraišią dieninių drugių rūšį – pelkinį gelsvį (*Colias palaeno*). Pateiktos radvietės, paplitimo žemėlapis, stebėjimo datos, individų skaičius ir stebėtojai.

*Received: October 20, 2011*