

RECORDS OF THREE NEW FOR THE LITHUANIAN FAUNA AND FOUR RARE WASP SPECIES (HYMENOPTERA: APOIDEA: AMPULICIDAE & CRABRONIDAE)

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Introduction

The objectives of this contribution are to supplement the check-list of Ampulicidae and Crabronidae wasps of Lithuanian fauna (Budrys, 1992, 2001, 2005, 2006) by recently found new for the local fauna species, as well as to provide new records of two declining species that are protected in several European countries, and two other species that have not been recorded in Lithuania since the first half the 20th century.

Material and methods

Wasps were collected using entomological net or yellow pan traps, or they were reared from trap-nests (bundles of reed stem internodes), exposed on the tree trunks. The specimens are preserved in the collection of the Institute of Ecology of Vilnius University.

The species new to the Lithuanian fauna are marked by asterisks (*). If not indicated otherwise, the specimens were collected by the author.

List of species

AMPULICIDAE

***Dolichurus corniculus* (Spinola, 1808)**

Wengris, 1962: 15 (Vilnius env.); Budrys, 1992: 22 (listed).

Varėna distr., 3 km S Puvočiai (54°05'20"N, 24°19'20"E), pine forest glade, 29 06 1997, 1♂; Tauragė distr., Viešvilė Nat. R., Sakalinės Miškas f., Prūsgiris (55°08'20"N, 22°27'25"E), 19 06 2000, 1♀ (V. Uselis).

CRABRONIDAE

****Passaloecus clypealis* Faester, 1947**

Kaišiadorys distr., Žiežmariai (54°49'N, 24°25'E), garden, 16 08 1966, 1♂ (A. Jakimavičius); Vilnius distr., Airėnai II (54°50'51"N, 24°57'21"E), 03 08 2007, 1♀, pan trap; Rusėnai (54°49'50"N, 24°57'45"E), 10 08 2007, 3♀, pan traps.

****Pemphredon baltica* Merisuo, 1972**

Anykščiai distr., Šimonių Giria f., Ertėjai (55°42'27"N, 25°14'14"E), 10 06–26 08 2006, 3♀ 2♂ (Ž. Nevronytė), reared from trap-nests; Jurbarkas distr., Viešvilė Nat. R., Viešvilė env. (N55°07'27" 22°24'41"E), 1♂, Kaskalnio Miškas f. (55°07'28"N, 22°24'40"E), 1♂, 28 06–19 08 2005, both reared from trap-nests; Varėna distr., Margionys forestry (54°00'N, 24°17'E), 29 05 2001, 1♂, collected by net (V.

Jonaitis); Puvočiai env. (54°06'00"N, 24°19'26"E), 14 05–20 08 2006, 1♀, reared from trap-nest.

***Pemphredon flavistigma* Thomson, 1874**

Wengris, 1962: 13 (Vilnius: Vingis Park); Budrys, 1992: 24 (listed).

Anykščiai distr., Skiemonys env., Varnupys (55°23'38"N, 25°16'20"E), 24 05 2002, 1♀, on the wall of old wooden building.

****Tachytes panzeri* (Dufour, 1841)**

Vilnius distr., 1 km N Kiemeliai (54°51'46"N, 25°00'11"E), dry meadow, 02–04 08 2007, 1♀, pan trap; Saugūniškės (54°50'50"N, 25°02'26"E), dry fallow, 03–05 07 2007, 1♀ 1♂, pan trap.

***Ectemnius fossorius* (Linnaeus, 1758)**

Budrys, 1992: 36 (Rokiškis, Švenčionys, Zarasai distr.).

Rokiškis distr., Sartai Regional Park, Dusetų Miškas f., Žvirbliškės (55°47'15"N, 25°48'10"E), 21 07 2004, 1♂ (V. Jonaitis); Plungė distr., Žemaitija National Park, Beržoras env. (56°01'32"N, 21°49'47"E), 29 07 2006, 1♂.

***Stizus perrisii* Dufour, 1838**

Budrys, 2001: 389 (Varėna distr.).

Varėna distr., 3 km S Puvočiai (54°05'59"N, 24°19'24"E), open *Corynephorus* grassland on inland dunes, 15 07 2004, 1♂.

Discussion

Dolichurus corniculus, the only representative of the family Ampulicidae in the Lithuanian fauna, is widespread in Europe (reaching Finland and Sweden in the north and North Africa and Turkey in the south) but rarely collected species (Bitsch & Barbier, 1997a). *Passaloecus clypealis*, *Pemphredon flavistigma* and *Ectemnius fossorius* are widely distributed across most of Palearctics, however, they are generally rare in Europe and restricted to the central and northern parts (Lomholdt, 1975–1976; Bitsch & Leclercq, 1993; Dollfuss *et al.*, 2001).

Pemphredon baltica is a rare, locally found species, having purely European distribution (Lomholdt, 1975; Dollfuss *et al.*, 2001). It is remarkable that most of *P. baltica* specimens collected in Lithuania were reared from the reed trap-nests, placed on trunks of trees and providing tubular cavities for nesting of solitary wasps (Budrys *et al.*, in preparation). *P. baltica* is the only *Pemphredon* species regularly nesting in this type of trap-nests. We suggest that *P. baltica* uses the pre-existing cavities for nesting more often (or exclusively) unlike most other *Pemphredon* species that burrow rotten deadwood or pith of shrubs.

Tachytes panzeri and *Stizus perrisii* are widely distributed in the southern Europe; *T. panzeri* also occurs in Asia, eastwards to China. However, both species are absent in the north of Europe, e.g. Fennoscandia, Denmark, Latvia and Estonia (Bitsch & Barbier 1997b; Schmidt & Bitsch, 2001). Currently the Maišiagala environs (settlements Kiemeliai and Saugūniškės) for *T. panzeri* and the Puvočiai and Marcinkonys environs for *S. perrisii* are the northernmost known points of their distribution in Europe.

Ectemnius fossorius is declining and protected in several countries of Western Europe. It is regionally extinct in Sweden (ArtDatabanken..., 2007), critically endangered (category 1) in Germany (Rote Listen online, 2007) and in Poland (Skibinska, 2004a). In Lithuania, the species seems to have a scattered distribution,

linked to large semi-natural forests. Its local populations need to be assessed, and the species must be included into the Red data book of Lithuania.

Stizus perrisii is another species declining in the northern part of its distribution area. It is considered extinct in Germany (Rote Listen online, 2007) and probably extinct in Poland (Skibinska, 2004b). This species was repeatedly observed in southern Lithuania, Varėna district. Having in mind the decline of *S. perrisii* in the neighbouring countries, the Lithuanian population may be regarded as regionally important for survival of the species in Europe. Therefore, urgent quantitative assessment and strict protection by including it into the national red data book is necessary.

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Trijų naujų Lietuvos faunos ir keturių retų vapsvų (Hymenoptera: Apoidea: Ampulicidae & Crabronidae) rūšių radvietės

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Santrauka

Pateikti duomenys apie tris žiedvapsvių rūšis, pirmąkart aptiktas Lietuvoje: *Passaloecus clypealis* Faester, 1947, *Pemphredon baltica* Merisuo, 1972 ir *Tachytes panzeri* (Dufour, 1841). Taip pat pateiktos naujos dviejų retų, iki tol stebėtų pirmoje 20-to amžiaus pusėje vapsvų rūšių (tarakonvapsvės *Dolichurus corniculus* ir žiedvapsvės *Pemphredon flavistigma*) naujos radvietės, taip pat nauji duomenys apie dvi sparčiai nykstančias siaurinėje arealo dalyje, įtrauktas į eilės Europos šalių Raudonąsias knygas rūšis - *Ectemnius fossorius* (Linnaeus, 1758) ir *Stizus perrisii* Dufour, 1838. Pastarosios dvi rūšys yra siūlomos įtraukti ir į Lietuvos raudonąją knygą. Žiedvapsvių *T. panzeri* ir *S. perrisii* Lietuvos populiacijos yra šiauriausios visame žinomame jų Europos areale. Kiekvienai aptariamai rūšiai pateiktos sugavimo vietos, datos ir individų skaičius.

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