

## **Ichneumonidae (Hymenoptera) new or rare for the Romanian fauna in some grassland ecosystems in the lower flow of the Prut water meadow (Romania)**

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### **Summary**

In this paper the authors present 15 ichneumonid species belonging to 13 genera of the subfamilies Anomaloninae, Campopleginae, Cremastinae, Ctenopelmatinae, Ichneumoninae, Phaeogeninae and Tryphoninae, collected from the grassland ecosystems in the lower flow of the Prut water meadow. The species *Alexeter albilabris* Thoms. and *Hadrodactylus rectinervis* (Roman, 1909) are new for the Romanian fauna. The other 13 species are rare or very rare in the Romanian fauna and for all over the world.

### **Rezumat**

#### **Ichneumonidae (Hymenoptera) noi sau rare pentru fauna României din ecosisteme practice din lunca inferioară a Prutului**

În această lucrare autorii prezintă 15 specii de ichneumonide care aparțin la 13 genuri din subfamiliile Anomaloninae, Campopleginae, Cremastinae, Ctenopelmatinae, Ichneumoninae, Phaeogeninae și Tryphoninae, colectate din ecosisteme practice din lunca inferioară a Prutului. Speciile *Alexeter albilabris* Thoms. și *Hadrodactylus rectinervis* (Rom.) sunt noi pentru fauna României. Celelalte 13 specii sunt rare sau foarte rare atât pentru fauna României, cât și pentru fauna mondială.

**Key words:** Ichneumonidae, new or rare species, Romanian fauna, grassland ecosystems, Prut water meadow.

### **Introduction**

The areas between the dam and Prut river present mesophyllous associations, however it meets and salty areas, where there are halophyllous associations. Whether the natural meadows present an outstanding ichneumono-

logical diversity, because of abundant vegetation, this is much reduced in the azonal meadows. The presence of ichneumonids in these meadow ecosystems depends by their hosts, food or they there are in passage.

### Material and methods

We made our researches in the two stations with natural secondary meadows: Gorban, Iași county and Stăniliești, Vaslui county. The ichneumonids were collected in May and June 2008 from the secondary meadows in the areas situated before and after dam, using the mowing with entomological net and the watching methods. The ichneumonological material obtained was studied in the laboratory, at Olympus stereomicroscope, for the species identification.

### Results

The authors identified 15 ichneumonid species new or rare for the Romanian fauna, collected from the two stations (Table 1). We present their synopsis of these ichneumonid species:

Order **HYMENOPTERA** Linnaeus, 1758  
Suborder **APOCRITA** Gerstaecker, 1867  
Suprafamily **ICHNEUMONOIDEA** Viereck, 1916  
Family **ICHNEUMONIDAE** Latreille, 1802  
Subfamily **ANOMALONINAE** Viereck, 1918  
Tribe **Gravenhorstiini** Enderlein, 1912

I. Genus **BARYLYPA** Förster, 1869

1. *Barylypa pallida* Gravenhorst, 1829, ♀

Synonims:

1857 *Anomalon rufum* Holmgren, Ophionslägtet Anomalon. Öfversigt af Kongliga Vetenskaps-Akademiens Förhandlingar, 14: 157 – 186.

1892 *Anomalon laticeps* Thomson, Opusc. Ent., 16: 1752 – 1772.

1895 *Anomalon discrepans* Brauns, Termész. Füzet., 18 : 42 – 49.

1895 *Anomalon humeralis* Brauns, Termész. Füzet., 18 : 42 – 49.

1966 *Anomalon renidens* Tosqunet, Mém. Soc. Ent. Belg., 5: 1 – 430.

1900 *Anomalon (Laphyctes) elegantulum* Schmiedeknecht, Ent. Mounth. Mag.,

60: 103 – 112.

Material: 1 ♀, May15, 2008, Stăniliești - Săratu, Vaslui county.

Length: 20 – 24 mm.

Hosts: *Agrotis segetum* Den. et Schiff. (Lep., Noctuidae).

Geographic distribution: Ethiopian, Palaearctic (Algeria, Italy) species. In Romania it is a relative rare species, being previously recorded from Dumești, Iași county, Agigea, Comorova – Mangalia, Constanța county, Vânători, Neamț county, and Fundulea, Ilfov Comorova – Mangalia, [C. Pisiță, 2001].

Subfamily **CAMPOPLEGINAE** Förster, 1869

II. Genus **CAMPOLETIS** Förster, 1869

2. *Campoletis cognata* Tschek, 1871, ♀♂

Material: 1 ♀, May 15, 2008, Stăniliești - Săratu, Vaslui county; 1 ♂, May 15, 2008, Gorban, Iași county.

Length: 6, 5 mm.

Hosts: *Aegeria tipuliformis* Cl. (Lep., Sesiidae), *Pyrausta sticticalis* L. (Lep., Pyraustidae).

Geographic distribution: Palaearctic species: Western Europe, Russia (European and Siberian parts). In Romania it is a rare species, being previously recorded from Ineu, Arad county, Hodod, Satu Mare county, Suceava, Suceava county [Pisiță, 2001]; Valea Sirinea – Cozla, Valea Mraconia – Ogradena, jud. Mehedinți [M. Constantineanu & all, 1975]; natural reservation “Ponoare”, Suceava county [C. Pisiță, 2001].

III. Genus **SINOPHORUS** Förster, 1868

3. *Synophorus pleuralis* (Thomson, 1887), ♀♂

Material: 2 ♀♀ și 1 ♂, May 15, 2008, Stăniliești – Săratu, Vaslui county.

Length: 6 – 7 mm.

Hosts: *Pyrausta sticticalis* L., *Ostrinia nubilalis* Hb. (Lep., Pyraustidae).

Geographic distribution: Oriental, Palaearctic (Northern Europe). In Romania it is a rare species, being previously recorded from Beclean, Bistrița – Năsăud; Periprava sand bank, Biosphere Reservation “Danube Delta”, Tulcea county; Suceava, Suceava county [C. Pisiță, 2001]; Caraorman sand bank, Biosphere Reservation “Danube Delta”, Tulcea county; Valea Mraconia, Ogradena commune, Dubova, Mehedinți county [M. Constantineanu & all, 1975]; natural reservation “Ponoare”, Suceava county [M. Constantineanu, M. Voicu, 1977].

Subfamily **Cre mastinae** Dalla Torre, 1901

IV. Genus **CREMASTUS** Gravenhorst, 1829

4. *Cre mastus bellicosus* Gravenhorst, 1829, ♀

**Synonims:**

1899 *Cremastus partitus* Szépl., Termész. Füzet., **23** : 1 – 38.

**Material:** 3 ♀♀, May 15, 2008, Stăniliești - Săratu, Vaslui county.

Length: 8 mm.

**Hosts:** unknown.

**Geographic distribution:** Palaearctic species: Northern and Western Europe,

Republic of Moldova, Ukraine, Russia (Ussursk and Kazansk regions). In Romania it is a relative rare species, being previously recorded from Maramureș; Aiud, Alba county]; Rus, Sălaj county; Dumești, Iași county [C. Pisică, 2001]; Periprava sand bank, Biosphere Reservation “Danube Delta“, Tulcea county; Caraorman sand bank, Biosphere Reservation “Danube Delta“, Tulcea county [Constantineanu, R., Constantineanu, Irinel, 1995].

Subfamily **CTENOPELMATINAE** Förster, 1869

Tribe **Mesoleiini** Thomson, 1883

V. Genus **ALEXETER** Förster, 1869

5. *Alexeter albilabris* Thomson, 1895, ♀♂

**Material:** 1 ♀ și 1 ♂, May 15, 2008, Stăniliești - Săratu, Vaslui county.

♀♂. Head smooth, mat, narrowed posteriorly, vertex wide, frons flat; antennae long as body or a little longer, the tip rolled in spiral; scape almost two times longer as second flagellar segment. Eyes gross, a little excavated near the toruli. Face flat, dense punctured, with a median carina, little evidently. Clipeus polished, sparsely punctured, at apex a little compressed and abrupt. Cheeks very short. Mandibles strong, with approximately equal tooth. Mesoscutum little polished, with a fine, gray pubescence. Notauli a little deep, but obviously. Mesopleurumii densely and fine punctuated, polished speculum. Propodeum fine rugose – punctured, only area postica is bounded, small and not opened behind. Wings long, enough narrowed; stigma and radial cell elongated. Basal vein little oblique and curved. Areolet of a medium size, triangular, pedicled. Nervulus interstitial; nervellus oppositus, intercepted near middle.

Legs long and slender; spurs of hind legs reach to the propodeum middle; last segment of hind tarsi a little curved, less longer as previous segment.

Abdomen dorso – ventrally compressed, fine rugose – punctured, flat and polished. Tergite 1 at female two times longer as wide behind, while at male is at least three times longer as wide. Glimmae evidently. Segments 2 and 3 at female less longer as wide, at male evidently longer as wide. Last

segments at female little dorso – ventrally compressed. Ovipositor short, not overtake the abdomen tip.

♀♂. Black. Antennae reddish, at base and tip blackish; clipeus whitish; mandibles, excepting tip, yellow. Scutellum and postscutellum reddish. Tegulae and scapular callosity yellow – red. Wings yellow – pale; stigma yellow – red.

Legs yellow – red. Coxae, base of hind trochanters, femorae and tip of tibiae black; hind tarsi reddish, femorae and tip of tibiae black; hind tarsi black.

Hind edge of tergite 1, tergites 2 – 4, usually, with hind edge blackish. At male entirely face, ventral part of scape, forae coxae and trochanters yellow. Scutellum and postscutellum red to yellow.

Length: 8,5 – 9 mm.

**Hosts:** unknown.

**Geographic distribution:** Palaearctic species: Sweden, Germany, Russia (St. Petersburg, Penza). **New species for Romanian fauna.**

### Tribe **Euryproctini** Thomson, 1883

#### VI. Genus **HADRODACTYLUS** Förster, 1869

##### 6. *Hadrodactylus faciator* (Thunberg, 1822), ♀

**Synonims:**

1856 *Mesoleptus gracilis* Holmgren, Kongl. Svensk. Vet. Handl., **75** : 1 - 104.

(Preoccupied by *Mesoleptus gracilis* Stephens, 1835).

**Material:** 1 ♀, May 15, 2008, Stăniliești - Săratu, jud. Vaslui.

Length: 8 – 11 mm.

**Hosts:** unknown.

**Geographic distribution:** Sweden, Germany. In Romania it is a relative rare species, being previously recorded only from Saschiz, Mureș county [C. Pisciă, 2001].

##### 7. *Hadrodactylus femoralis* Holmgren, 1885, ♀♂

**Synonims:**

1856 *Mesoleptus gracilis* Holmgren, Kongl. Svensk. Vet. Handl., **75** : 1 - 104.

1857 *Mesoleptus curtus* Holmgren, Kongl. Svensk Vet. Handl., N. F. **1** (2): 93 – 246.

**Material:** 3 ♀♀ și 2 ♂♂, May 15, 2008, Stăniliești - Săratu, Vaslui county; 1 ♂, May 15, 2008, Gorban, Iași county.

Length: 9 – 12 mm.

**Hosts:** unknown.

**Geographic distribution:** Suedia, Germania. In Romania it is a rare species, being previously recorded from Brad, Hunedoara county, Rus, Jud. Sălaj; Postăvaru mountain, Braşov county and Saschiz, Mureş county [C. PISICĂ, 2001].

8. *Hadrodactylus rectinervis* (Roman, 1909), ♀♂

**Material:** 1 ♀ și 1 ♂, May 15, 2008, Stănileşti - Săratu, Vaslui county.

♀♂. Head a little narrowed posteriorly, broader as thorax; frons and temples mat; clipeus is not separated of face, arrounded at anterior edge; mandibles with equal tooth.

Mesoscutum fine punctured, polished. Epicnemies above complete. Mesopleuromii mat, rugose – punctured. Propodeum fine rugose, with unevident carinae. The terminal sector of radial vein of anterior wing is entirely straight. Second recurrent vein intercepted at middle and present a bulla. Areolet triangular, almost sessile. Nervellus a little antefurcal, intercepted a little under the middle. Femorae slender; both spurs of hind tarsi almost equal; the last segment shorter than third.

Abdomen slender, at female, at the end a little flattened dorso-ventrally. First segment narrow and dark, with a fine pubescence. Mesopleuromii polished, a little punctured.

♀♂. Black. Palpi, clipeus, face and a spot on cheeks yellow – pale. Wings reddish, scape dark on dorsal side, yellow ventrally. Wings transparent; stigma yellow – reddish. Tegulae yellow – pale. Legs reddish. Forae coxae black; hind femorae black.

Abdomen black, dorsally with a longitudinal rust spot, which broadened to the end or abdomen is red. Tergite 1 and lateral edges of tergites 5 – 7 black or abdomen red and tergite 1 – 3 black. End of abdomen red, with black spots, the last sternit always red.

Length: 9 – 10,5 mm.

**Hosts:** unknown.

**Geographic distribution:** Sweden (Lapland). **New species for Romanian fauna.**

VII. Genus **MESOLEIUS** Holmgren, 1856

9. *Mesoleius melanoleucus* Gravenhorst, 1829, ♂

**Material:** 1 ♂, May 15, 2008, Stănileşti - Săratu, jud. Vaslui.

Length: 6 mm.

**Hosts:** *Macrophya ribis* Schrank (Hym., Tenthredinidae).

**Geographic distribution:** Sweden, Germany. In Romania it is a very rare species, being previously recorded only from Beclean, Bistrița – Năsăud county [C. Pisciă, 2001].

VIII. Genus **HYPERBATUS** Förster, 1869

10. *Hyperbatus segmentator* Holmgren 1857, ♀♂

**Synonims:**

1876 *Mesoleius solitarius* Holmgren, Kongl. Svensk Vet. Handl., N. F. **13** (12): 1 – 51.

1893 *Mesoleius orbitalis* Thomson, Opusc. Ent., **19**: 2025 – 2079.

**Material:** 3 ♀♀ și 2 ♂♂, May 15, 2008, Stănilești - Săratu, Vaslui county.

Length: 7 mm.

**Hosts:** unknown.

**Geographic distribution:** Northern and Centre Europe, Russia (Tambov, Iaroslav, Kostroma, Viatsk, Kuibâșev). In Romania it is a very rare species, being previously recorded only from Valea Mraconia, Ieșelnița commune, Mehedinți county [M. CONSTANTINEANU & all, 1975].

Subfamily **ICHNEUMONINAE** Ashmead, 1894

IX. Genus **CTENICHNEUMON** Thomson, 1894

11. *Ctenichneumon divisorius* (Gravenhorst 1820), ♀

**Synonims:**

1843 *Ichneumon baeticus* Spinola, An. Soc. Ent. France, **2** (1): 111 - 174.

**Material:** 1 ♀, May 15, 2008, Stănilești - Săratu, Vaslui county.

Length: 16 mm.

**Hosts:** *Hadena adusta* Esp., *Agrotis segetum* Schiff., *Archanara sparganii* Esp. (Lep., Noctuidae).

**Geographic distribution:** Almost all Europe, Algeria, Ukraine, Belarus, Russia (St. Petersburg, Altai, Daghestan, Sahalin island), Japan. In Romania it is a rare species, being previously recorded from Ineu, Arad county and Retezat mountains [CONSTANTINEANU, M. I., 1959].

X. Genus **SPILOTHYRATELES** Heinrich 1967

12. *Spilothyrates illuminatorius* Gravenhorst 1820, ♂

**Synonims:**

1829 *Ichneumon zonalis* Gravenhorst, Ichn. Eur., **1**: 1 – 827.

**Material:** 2 ♂♂, May 15, 2008, Stăniliești - Săratu, Vaslui county; 1 ♂, May 15, 2008, Gorban, Iași county.

Length: 10 – 12 mm.

**Hosts:** *Caradrina ambigua* Schiff., *Mamestra persicariae* L. și *Polia dissimilis* Knoch (Lep., Noctuidae).

**Geographic distribution:** Algeria, England, Spain, France, Germany, Italy, Hungary, Azerbaijan, Russia (Caucasus), Ukraine. In Romania it is a relative rare species, being previously recorded from Turda, Cluj county; Reșița, Mehădia, Caraș-Severin county; Zalău, Sălaj county; Aiud, Alba county; Bocșa Română, Caraș-Severin county; “Hârboanca“ and “Bălteni“ natural reservations Vaslui county [M. Constantineanu, 1959]; “Ponoare“ natural reservation, Suceava county; “Valea lui David“ natural reservation, Iași county and Stâncă, Ștefănești commune, Botoșani county [C. Pisciă, 2001], Caraorman and Sulina, Danube Delta, Tulcea county [Constantineanu, R., Constantineanu, Irinel, 1995].

#### Subfamily PHAEOGENINAE Dalla Torre, 1902

##### XI. Genus DIADROMUS Wesmael, 1844

#### 13. *Diadromus heteroneurus* (Holmgren, 1889), ♀♂

**Synonims:**

1890 *Diadromus prosopius* Holmgren, *Ichneumonologia Suecica*, *Ichneumonides pneustici*, **3**: 341 – 346.

**Material:** 2 ♀♀, May 15, 2008, Stăniliești - Săratu, Vaslui county, 1 ♂, May 15, 2008, Gorban, Iași county.

Length: 6 - 9 mm

**Hosts:** *Yponomeuta cognatella* Hb. (Lep, Yponomeutidae).

**Geographic distribution:** Sweden, Finland, England, Belgium, Germany, Poland, Hungary, Russia (Kamciatka peninsula). In Romania it is a relative rare species, being previously recorded from Breazu wood, Iași county; Țigănești, Galați county; Oltenești, Vaslui county, Poiana Brașov, Brașov county; “Frumoasa” natural reservation, Suceava; Baci, Suceagu, Cluj county and Mândra, Sibiu county [C. Pisciă, 2001].

#### Subfamily Tryphoninae Shuckard, 1840

##### Tribe Phytodietini Hellén, 1915

##### XII. Genus NETELIA Gray, 1860

#### 14. *Netelia (Bessobates) cristata* (Thomson, 1888), ♂



**Synonims:**

1889 *Parabatus frankii* Brauns, Arch. Ver. Freun. Naturges. Meklenburg, **43**: 73

**Material:** 1 ♂, May 15, 2008, Gorban, Iași county.

Length: 14, 5 mm

**Hosts:** *Apocheima hispidaria* Den. et Schiff., *Lycia hirtaria* Cl., *L. pomonaria* Hb., *Phigalia pilosaria* Hb. (Lep., Geometridae), *Anarta myrtili* L., *Bena prasinana* L., *Catocala promisa* Esp., *Ceramica pisi* L., *Noctua pronuba* L., *Nycteola revayana* Scop. (Lep., Noctuidae).

**Geographic distribution:** Nemoral palaeartic species. Western Europe, Russia (European and Siberian parts), Belarus, Ukraine, Republic of Moldova, China, Korea, Japan, New Guinea. In Romania it is a relative rare species, being previously recorded from Ineu, Arad county, Hodod, Satu Mare county, Sibiu, Sibiu county, Retezat mountains, Cehu Silvaniei, Sălaj county, Bucegi mountains, Prahova county, Cârjoaia wood, Iași county, "Hârboanca" natural reservation, Vaslui county [C. Pistică, 2001]; Valea Mraconia, Ogradena commune, Mehedinți county [M. Constantineanu & all, 1975].

Tribe **Triphonini**, Shuckard, 1840

XIII. Genus **RHORUS** Thomson, 1883

15. *Rhorus exstirpatorius* (Gravenhorst, 1829), ♀♂

**Synonims:**

1856 *Polyblastus laevigatus* Holmgren, Kongl. Svensk. Vet. Handl., **75**: 1 - 104.

1901 *Monoblastus laevigatus* Dalla Torre, Cat. Hym., **3**: 1 - 544, 545 - 1141.

**Material:** 2 ♀♀ și 1 ♂, May 15, 2008, Stăniliești - Săratu, jud. Vaslui; 1 ♂, May 15, 2008, Gorban, jud. Iași.

**Hosts:** *Nematus flavus* F. și *Pteronidea ribesii* Scop. (Hym., Tenthredinidae).

**Geographic distribution:** Centre and Northern Europe, Russia (Kursk, Penza, Tambov and Samara). In Romania it is a relative rare species, being previously recorded from Ineu, Arad county, Saschiz, Mureș county; Broșteni and Neagra, Suceava county; Valea Mraconia, Ogradena commune, Dubova, Plavișevîța, Mehedinți county [M. Constantineanu & all, 1975]; "Frumoasa" and "Codrul Secular Slătioara" natural reservations, Suceava county [C. Pistică, 2001].

**Table 1.** – Ichneumonological fauna from some grasslands ecosystems in the lower flow of the Prut water meadow (Romania)

	Parasitoid species	Distribution in Romania				Station		Hosts
		new	very rare	rare	Stănileşti	Gorban		
1.	Subfam. Anomaloniinae <i>Baryhypha pallida</i> Grav.	-	-	+	+	-	<i>Agrotis segetum</i> Den. et Schiff. (Lep., Noctuidae)	
2.	Subfam. Campopleginae <i>Campolētis cognata</i> Tschek	-	-	+	+	+	<i>Aegeria tipuliformis</i> Cl (Lep., Sesiidae) <i>Pyrausta sticticalis</i> L. (Lep., Pyraustidae)	
3.	<i>Synophorus pleuralis</i> (Thoms.)	-	-	+	+	-	<i>Pyrausta sticticalis</i> L., <i>Ostrinia nubilalis</i> Hb. (Lep., Pyraustidae)	
4.	Subfam. Cremastinae <i>Cremastus bellicosus</i> Grav.	-	-	+	+	-	-	
5.	Subfam. Ctenopelmatinae Först. <i>Alexeter albilabris</i> Thoms.	+	-	-	+	-	-	
6.	<i>Hadrodactylus faciator</i> (Thunb.)	-	-	+	+	-	-	
7.	<i>Hadrodactylus femoralis</i> Holmgr.	-	-	+	+	+	-	
8.	<i>Hadrodactylus rectinervis</i> (Rom.)	+	-	-	+	-	-	
9.	<i>Mesoleius melanoleucus</i> Grav.	-	+	-	+	-	<i>Macrophya ribis</i> Schrank (Hym., Tenthrerimidae)	
10.	<i>Hyperbatus segmentator</i> Holmgr.	-	+	-	+	-	-	

	Parasitoid species	Distribution in Romania					Station			Hosts
		new	very rare	rare	Stănileşti	Gorban				
11.	Subfam. Ichneumoninae <i>Ctenichneumon divisorius</i> (Grav.)	-	-	+	+	+	-		<i>Mniotype adusta</i> Esp., <i>Agrotis segetum</i> Schiff., <i>Archana sparganii</i> Esp. (Lep., Noctuidae)	
12.	<i>Spilothyrates illuminatorius</i> Grav.	-	-	+	+	+	+		<i>Caradrina ambigua</i> Schiff., <i>Mamestra persicariae</i> L. and <i>Lacanobia suasa</i> (Den. & Schiff.) (Lep., Noctuidae)	
13.	Subfamily Phaeogeninae <i>Diadromus heteroneurus</i> (Holmgr.)	-	-	+	+	+	+		<i>Yponomeuta cognatella</i> Hb. (Lep., Yponomeutidae).	
14.	Subfam. Tryphoninae <i>Netelia (Bessobates) cristata</i> (Thoms.)	-	-	+	-	-	+		<i>Apocheima hispidaria</i> Den. et Schiff., <i>Lycia hirtaria</i> Cl., <i>L. pomonaria</i> Hb., <i>Phigalia pilosaria</i> Hb. (Lep., Geometridae), <i>Anarta myrtili</i> L., <i>Bena prasinana</i> L., <i>Catocala promisa</i> Esp., <i>Ceramica pisi</i> L., <i>Noctua pronuba</i> L., <i>Nycteola revayana</i> Scop. (Lep., Noctuidae)	
15.	<i>Rhorus exstirpatorius</i> (Grav.)	-	-	+	+	+	+		<i>Nematus flavus</i> F. and <i>Pteronidea ribesii</i> Scop. (Hym., Tenthredinidae).	

### Conclusions

- The authors present 15 ichneumonid species of 13 genera belonging to the following subfamilies: Anomaloninae, Campopleginae, Cremastinae, Ctenopelmatinae, Ichneumoninae, Phaeogeninae și Tryphoninae, collected from lawn ecosystems from the lawn ecosystems in Prut water meadow (lower flow).

- *Alexeter albilabris* Thoms. and *Hadrodactylus rectinervis* (Rom.) are new for the Romanian fauna.

- The other 13 species are rare in the Romanian fauna and for all over the world.

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