

## SYRPHIDS (DIPTERA: SYRPHIDAE) OF ROMANIA. CHECKLIST, PHENOLOGY, DISTRIBUTION

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Paper dedicated to the syrphidologist Vladimir Brădescu's memory, for the 40 years of exemplar study on these dipterans of Romania

Abstract. The checked up list, phenology and the distribution of 481 syrphid species of Romania are presented, on the basis of 135 papers published from 1853 till now. We point out the share of the families on each historical province and also mention some species which were not occurred for 50 years.

Résumé. On présente la liste vérifiée, la phenologie et la distribution de 481 espèces de syrphids de Roumanie, sur la base de 135 travaux publiés de 1853 jusqu'à présent. On souligne la valeur des familles du chaque province historique et on mentionne les espèces qui n'ont été trouvées les dernières 50 années.

Key words: Syrphidae (Diptera), Romania, list of the species, phenology, distribution.

### INTRODUCTION

The knowledge of the syrphid fauna is continuously subjected to changings both by the new records of the species in Romania, or by the description of some new species, and, on the contrary, by the removing of other species because of some identification errors. Thus, we consider necessary this paper of synthesis on the nomenclature revision according to the present specialized literature, the species distribution and the flight period for the 481 species recorded in Romania, as yet. The fauna of Romanian syrphids is one of the richest, in comparison with other European countries (Dirickx, 1993), due to the natural conditions which favour biodiversity, on the one hand, and, on the other one, to the study made by 68 researchers, represented by over 130 specialized papers, published between 1853-2005.

#### *Short history*

The knowledge of the syrphid fauna developed on several stages.

The first data on family Syrphidae of Romania are published in G. Mayr's paper, in 1853. After 106 years, in 1959, the volum „Fauna R. P. R, Fam. Syrphidae” (Suster, 1959) („Fauna of Popular Republic of Romania, Fam. Syrphidae”) is released. Unfortunately, the forerunners' data, gathered during this period, regarding the historical provinces, Transylvania and Banat, were not taken into consideration when this volume was drawn up because of the Petru Suster's premature death.

The completion of this gap is made by A. Z. Lehrer and Maria Lehrer in one of the first papers of synthesis on the Romanian syrphid fauna (1966-1968), where 352 species and varieties are cited, with their systematical, synonymous and zoogeographical revision.

A very important stage is the approach to the male genitalia, which generated the increasing of the Romanian species number to 447, cited in Vl. Brădescu's paper from 1991; in this paper there are the identification keys for the subfamilies, genera and species, according to this new criterion which proved to be of a great importance for the syrphidologists. Later, Vl. Brădescu published other 14 papers (1992-1999) on the material from the Retezat Mountains, Banat, the Romanian Plain, the Danube Delta.

Faunistic, zoogeographical and ecological study on this family occurs in Carmen Stănescu's PhD thesis (1996), where the number of the species reaches 456.

During the last stage, the following authors made studies on the spot and published data from different historical provinces, besides the already cited ones: Rákosy et al., 1993, Stănescu, 1997, 1998 a, b, 2000, 2003, Jessat, 1998, Brădescu & Pârvu, 2002, Pârvu, 2003 a, b; the museum collections were studied according to the analysis of the male genitalia made by Vujić et al. (1998).

In this paper we propose a synthesis of all these data gathered along the years, from 1853 till now, from 481 species.

#### MATERIAL AND METHOD

The data are taken from literature (Stănescu, 1993), from the collections preserved in „Grigore Antipa” National Museum of Natural History from Bucharest, the Museum of Natural History from Sibiu, and in other Romanian museums, as well as from our personal studies in field trips and laboratory along a period of more than 30 years.

Systematical revision of the nomenclature was made according to the present specialized literature on the Palaearctic fauna (Peck, 1988), Swiss (Merz et al., 1998) and Czecho-Slovak fauna (Holinka & Mazánek, 1997). For the study of male genitalia in different genera, the papers on *Paragus* (Goeldlin de Tiefenau, 1976), *Sphaerophoria* (Goeldlin de Tiefenau, 1976, 1989), *Cheilisia* (Vujić, 1996), and others, are of a great importance.

Abbreviations used in figures and table 1:

BN –Banat; BV – Bucovina; CR – Crișana; DB – Dobrogea; DD – Danube Delta; MD – Moldova; MT – Muntenia; OT – Oltenia; SMM – Maramureș and Satu Mare; TR – Transylvania.

\* - Brădescu's card file.

#### RESULTS AND DISCUSSIONS

##### *Taxonomical list, phenological data and distribution in Romania*

In table 1 we present the list of the 481 species cited in Romania, as yet, including phenological data. The species distribution within Romanian territory is also mentioned in the table 1, grouped on historical provinces (Fig. 1), and also graphically presented in figure 2. We established that the largest number of species (318) were recorded in Transylvania, than in Moldova (271), Banat (263), Muntenia (220), etc. The smallest number was recorded in Oltenia (58) and it does not reflect the absence of the species but the lack of a specialized research of this very

interesting region from the faunistic point of view, which should be studied in the future.

The scarceness of some species is mostly due to the degradation of the natural conditions which support the biodiversity. Therefore, a large number of species cited in literature or present in *unique* samples in the collections of the museum, and which certify their presence in Romanian fauna, were not found again during the last 50 years or more, for instance: *Merodon caucasicus*, *Eumerus nudus*, *Eumerus tauricus*, *Arctophila bequaerti*, *Cheilosia schnabli*, *Merodon nigritarsis*, etc. (Stănescu, 1996).

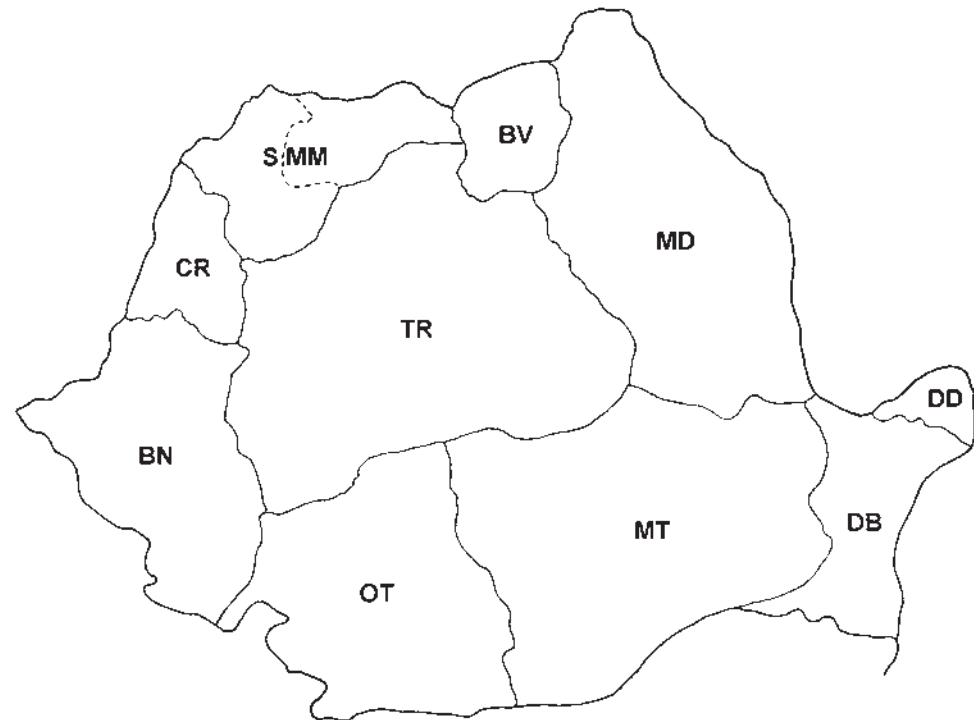


Fig. 1 – The map with different regions of Romania (the sigles are explained in the text).

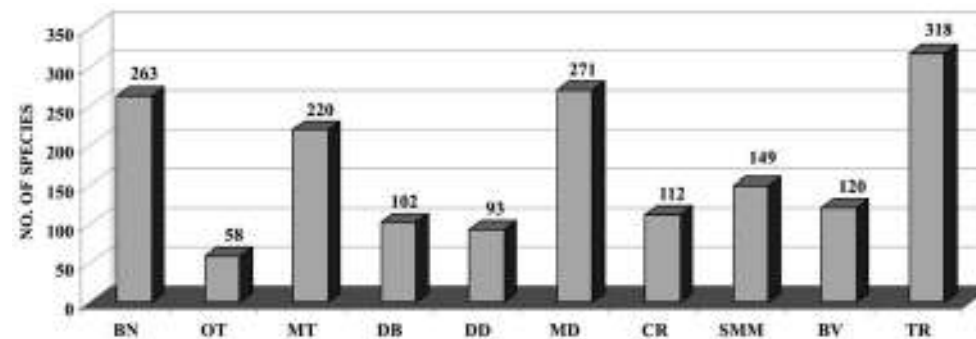


Fig. 2 – The distribution of Syrphidae species (Diptera) in different regions of Romania.

Taxonomical list, phenology and distribution.

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	Subfamily SYRPHINAE											
	Syrphini											
	<i>Dasyrphus</i> Enderlein, 1938											
1.	<i>D. albostratus</i> (Fallen, 1817)	IV-IX	+			+	+	+	+	+	+	+
2.	<i>D. eggeri</i> (Schiner, 1862)	VII-VIII									+	
3.	<i>D. friuliensis</i> (Van der Goot, 1960)	V-VIII	+					+		+		+
4.	<i>D. hilaris</i> (Zetterstedt, 1843)											
5.	<i>D. nigricornis</i> Verral, 1873	VIII										+
6.	<i>D. pauxillus</i> Willinston, 1887	VI										+
7.	<i>D. pinastris</i> De Geer, 1776	V-VIII	+					+	+	+		+
8.	<i>D. tricinctus</i> (Fallen, 1817)	V-X	+					+	+	+		+
9.	<i>D. venustus</i> (Meigen, 1822)	IV-VII	+		+	+	+	+	+	+		+
	<i>Didea</i> Macquart, 1834											
10.	<i>D. alneti</i> (Fallen, 1817)	VII-IX						+				+
11.	<i>D. fasciata</i> Macquart, 1834	V-X	+		+			+	+		+	+
12.	<i>D. intermedia</i> Loew, 1854	VII-X			+					+		+
	<i>Doros</i> Meigen, 1803											
13.	<i>D. profuges</i> (Harris [1780]) = <i>conopseus</i> Fabricius, 1775	V-X	+		+	+		+	+			+
	<i>Epistrophe</i> Walker, 1852											
	Subgenus <i>Epistrophe</i> s.str.											
14.	<i>E. diaphana</i> (Zetterstedt, 1843)	V-VI	+					+				+
15.	<i>E. eligans</i> (Harris, 1780)	IV-VIII	+		+	+	+		+	+	+	+
16.	<i>E. flava</i> Doczal & Schmidt, 1994	VI										+
17.	<i>E. grossulariae</i> (Meigen, 1822)	V-X	+					+		+		+
18.	<i>E. melanostoma</i> (Zetterstedt, 1843)	V						+				
19.	<i>E. melanostomoides</i> (Strobl, 1880)	V-VI	+									
20.	<i>E. monticola</i> (Becker, 1921)	IV-VIII						+	+			+
21.	<i>E. nitidicollis</i> (Meigen, 1822)	IV-VII	+		+			+	+	+	+	+
22.	<i>E. ochrostoma</i> (Zetterstedt, 1849)	IV-VIII	+						+			+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	Subgenus <i>Epistrophella</i> Dušek & Laska, 1967											
23.	<i>E. euchroma</i> (Kowarz, 1885)	IV-V	+		+							
	<i>Episyrphus</i> Matsumura & Adachi, 1917											
24.	<i>E. balteatus</i> (De Geer, 1776)	III-XI	+	+	+	+	+	+	+	+	+	
	<i>Eriozona</i> Schiner, 1860											
25.	<i>E. syrphoides</i> Fallen, 1817	VII-VIII			+			+	+		+	
	<i>Ischyrosyrphus</i> Bigot, 1882											
26.	<i>I. glaucius</i> (Linnaeus, 1758)	VII-VIII			+			+	+	+	+	
27.	<i>I. laternarius</i> (Müller, 1776)	VII-VIII									+	
28.	<i>I. leiophthalmus</i> (Schiner & Egger, 1853)	VI-VIII	+					+				
	<i>Leucozona</i> Schiner, 1860											
29.	<i>L. lucorum</i> (Linnaeus, 1758)	V-VIII	+					+	+	+		
	<i>Megasyrphus</i> Dušek & Laska, 1967											
30.	<i>M. erraticus</i> (Linnaeus, 1758)	VI-VIII						+		+		
	<i>Melangyna</i> Verrall, 1901											
	Subgenus <i>Melangyna</i> s.str.											
31.	<i>M. arctica</i> (Zetterstedt, 1838)											
32.	<i>M. barbifrons</i> (Fallen, 1817)	IV			+							
33.	<i>M. compositarum</i> (Verrall, 1873)	VI-IX	+					+				
34.	<i>M. labiatarum</i> (Verrall, 1901)	VII						+			+	
35.	<i>M. lasiophthalma</i> (Zetterstedt, 1843)	III-V	+		+			+				
36.	<i>M. macularis</i> (Zetterstedt, 1843)	IV-V									+	
37.	<i>M. quadrimaculata</i> (Verrall, 1873)	III-V						+		+		
38.	<i>M. umbellatarum</i> (Fabricius, 1794)	VII-IX	+					+	+	+		
	Subgenus <i>Meligramma</i> Frey, 1946											
39.	<i>M. cincta</i> (Fallen, 1817)	IV-IX	+		+			+		+		
40.	<i>M. cingulata</i> (Egger, 1860)	VI-VII						+		+		
41.	<i>M. guttata</i> (Fallen, 1817)	V-VIII										
42.	<i>M. triangulifera</i> (Zetterstedt, 1843)	VII						+				
	<i>Meliscaeva</i> Frey, 1946											
43.	<i>M. auricollis</i> (Meigen, 1822)	V-X	+		+		+	+			+	+
44.	<i>M. cinctella</i> (Zetterstedt, 1843)	V-X	+		+	+			+	+	+	+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Eupeodes</i> Osten Sacken, 1877											
	Subgenus <i>Lapposyrphus</i> Dušek & Laska, 1967											
45.	<i>L. lapponicus</i> (Zetterstedt, 1838)	IV-X	+		+		+	+			+	+
	Subgenus <i>Eupeodes</i> s.str.											
46.	<i>E. corollae</i> (Fabricius, 1794)	V-XI	+	+	+	+	+	+	+	+	+	+
47.	<i>E. flaviceps</i> (Rondani, 1857)	VII-VIII										
48.	<i>E. latifasciatus</i> (Macquart, 1829)	IV-IX			+			+				+
49.	<i>E. latihumulatus</i> (Collin, 1931)	V-VII	+									+
50.	<i>E. luniger</i> (Meigen, 1822)	IV-XI	+	+	+	+	+	+	+	+	+	+
51.	<i>E. nielseni</i> (Dušek & Laska, 1976)	V			+							
52.	<i>E. nitens</i> (Zetterstedt, 1843)	V-VIII	+				+	+				+
53.	<i>E. nuba</i> (Wiedemann, 1830)	V-VII			+							+
	<i>Parasyrphus</i> Matsumura, 1917											
54.	<i>P. annulatus</i> (Zetterstedt, 1838)	VII-VIII						+		+		+
55.	<i>P. lineola</i> (Zetterstedt, 1843)	VI-VIII						+		+	+	+
56.	<i>P. macularis</i> (Zetterstedt, 1843)	VII										+
57.	<i>P. nigratarsis</i> (Zetterstedt, 1843)	VIII										+
58.	<i>P. punctulatus</i> (Verrall, 1873)	V-VIII	+		+			+				+
59.	<i>P. tarsatus</i> (Zetterstedt, 1838)	VII-VIII										+
60.	<i>P. unifasciatus</i> (Zetterstedt, 1838)	VII										+
61.	<i>P. vittiger</i> (Zetterstedt, 1843)	V-VIII	+					+		+	+	+
	<i>Scaeva</i> Fabricius, 1805											
62.	<i>S. albomaculata</i> (Macquart, 1842)	VI-IX						+				
63.	<i>S. pyrastris</i> (Linnaeus, 1758)	III-XI	+	+	+	+	+	+	+	+	+	+
64.	<i>S. selenitica</i> (Meigen, 1822)	V-IX	+	+	+	+	+	+	+	+	+	+
	<i>Sphaerophoria</i> Le Peletier & Serville, 1828											
65.	<i>S. bankowskiae</i> Goeldlin, 1989	VI										+
66.	<i>S. batava</i> Goeldlin, 1974	VI										+
67.	<i>S. fatarum</i> Goeldlin, 1989							+				
68.	<i>S. interrupta</i> (Fabricius, 1805)	VII										+
69.	<i>S. laurae</i> Goeldlin de Tiefenau, 1989	VII						+				+
70.	<i>S. loewi</i> Zetterstedt, 1843	V-VI				+	+	+				

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
71.	<i>S. menthastri</i> (Linnaeus, 1758)	IV-IX	+	+	+	+	+	+	+	+	+	+
72.	<i>S. philantus</i> (Meigen, 1822)	V-IX			+	+	+	+				+
73.	<i>S. rueppelli</i> (Wiedemann, 1830)	IV-IX			+	+	+					+
74.	<i>S. shirchan</i> Violovitsch, 1957	VI										+
75.	<i>S. scripta</i> (Linnaeus, 1758)	IV-X	+	+	+	+	+	+	+	+	+	+
76.	<i>S. taeniata</i> (Meigen, 1822)	V-VII			+		+	+	+	+		+
77.	<i>S. virgata</i> Goeldlin de Tiefenau, 1974 <i>Syrphus</i> Fabricius, 1775	VII						+		+		
78.	<i>S. nitidifrons</i> Becker, 1921	VII								+		
79.	<i>S. ribesii</i> (Linnaeus, 1758)	III-X	+	+	+	+	+	+	+	+	+	+
80.	<i>S. torvus</i> Osten Sacken, 1875	IV-IX	+	+	+	+	+	+	+	+	+	+
81.	<i>S. vitripennis</i> Meigen, 1822 <i>Xanthogramma</i> Schiner, 1860	IV-XI	+		+	+	+	+		+	+	+
82.	<i>X. festivum</i> (Linnaeus, 1758)	IV-VIII	+		+			+		+		+
83.	<i>X. laetum</i> (Fabricius, 1794)	V-IX	+					+	+	+		+
84.	<i>X. pedissequum</i> (Harris, 1776) Bacchini <i>Baccha</i> Fabricius, 1805	IV-IX	+	+	+	+	+	+	+	+	+	+
85.	<i>B. elongata</i> (Fabricius, 1775)	IV-X	+		+			+	+			+
86.	<i>B. obscuripennis</i> Meigen, 1822 Chrysotoxini <i>Chrysotoxum</i> Meigen, 1803	V-IX	+					+	+			+
87.	<i>C. arcuatum</i> (Linnaeus, 1758)		+	+	+		+	+		+		+
88.	<i>C. bicinctum</i> (Linnaeus, 1758)	V-VIII	+	+	+			+		+	+	+
89.	<i>C. cautum</i> (Harris, 1776)	IV-VIII	+		+			+		+	+	+
90.	<i>C. elegans</i> Loew, 1841	V-IX	+	+	+			+		+		+
91.	<i>C. fasciolatum</i> (De Geer, 1776)	VI	+					+	+	+	+	+
92.	<i>C. festivum</i> (Linnaeus, 1758)	V-IX	+		+			+	+	+	+	+
93.	<i>C. intermedium</i> Meigen, 1822	IV-X	+		+	+	+	+				+
94.	<i>C. lessonae</i> Giglio-Tos, 1890	V			+							
95.	<i>C. lineare</i> (Zetterstedt, 1819)	V-VIII									+	
96.	<i>C. octomaculatum</i> Curtis, 1837	V-IX	+		+			+	+		+	+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
97.	<i>C. vernale</i> Loew, 1841	IV-IX	+	+	+	+	+	+	+	+	+	+
98.	<i>C. verralli</i> Collin, 1940	VI-IX	+			+	+			+		+
	Melanostomini											
	<i>Melanostoma</i> Schiner, 1860											
99.	<i>M. dubium</i> (Zetterstedt, 1837)	VIII										+
100.	<i>M. incompletum</i> Becker, 1908	VIII-XI			+							+
101.	<i>M. mellinum</i> (Linnaeus, 1758)	IV-XI	+	+	+	+	+	+	+	+	+	+
102.	<i>M. scalare</i> (Fabricius, 1794)	V-X	+	+	+	+	+	+	+	+	+	+
	<i>Platycheirus</i> Le Peletier & Serville, 1828											
103.	<i>P. albimanus</i> (Fabricius, 1781) = <i>cyaneus</i> (Müller, 1764)	V-X	+		+			+		+		+
104.	<i>P. angustatus</i> (Zetterstedt, 1843)	VI-VIII	+					+		+		+
105.	<i>P. clypeatus</i> (Meigen, 1822)	VI-VIII			+			+		+		+
106.	<i>P. complicatus</i> (Becker, 1889)			+								
107.	<i>P. discimanus</i> (Loew, 1871)	VII									+	
108.	<i>P. europaeus</i> Goeldlin et al., 1990	VI-X										+
109.	<i>P. fulviventris</i> (Macquart, 1829)	V-X	+		+	+	+	+		+		+
110.	<i>P. immarginatus</i> (Zetterstedt, 1849)	VI-VIII			+			+		+		+
111.	<i>P. manicatus</i> (Meigen, 1822)	V-IX			+					+		+
112.	<i>P. melanopsis</i> Loew, 1856	VI-VIII			+			+				+
113.	<i>P. parmatus</i> Rondani, 1857	VII	+		+			+				+
114.	<i>P. peltatus</i> (Meigen, 1822)	VI-VIII						+				+
115.	<i>P. perpallidus</i> (Verrall, 1901)	VI				+	+	+				+
116.	<i>P. podagratus</i> (Zetterstedt, 1838)	VII	+									+
117.	<i>P. scambus</i> (Staeger, 1843)	VI-VIII			+			+	+	+		+
118.	<i>P. scutatus</i> (Meigen, 1822)	IV-X	+		+			+	+	+		+
119.	<i>P. sticticus</i> (Meigen, 1822)	V-VIII	+					+				+
120.	<i>P. tarsalis</i> (Schummel, 1837)	VII						+				+
121.	<i>P. tatricus</i> Dušek & Laska, 1982		+							+		
122.	<i>P. transfugus</i> (Zetterstedt, 1838)	VII								+		
	Subgenus <i>Pachysphyria</i> Enderlein 1868											
123.	<i>P. ambiguus</i> (Fallen, 1817)											



Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Pyrophaena</i> Schiner, 1860											
124.	<i>P. granditarsa</i> (Forster, 1771)	VII						+				
125.	<i>P. rosarum</i> (Fabricius, 1787)	V-X			+		+	+		+		+
	<i>Spazigaster</i> Rondani, 1843											
126.	<i>S. ambulans</i> (Fabricius, 1798)	VI-VII						+		+	+	+
	<i>Xanthandrus</i> Verrall, 1901											
127.	<i>X. comtus</i> (Harris, 1780)	V-IX	+		+	+	+	+	+	+		+
	Paragini											
	<i>Paragus</i> Latreille, 1804											
	Subgenus <i>Pandasyophthalmus</i> Stuckenberg, 1954											
128.	<i>P. constrictus</i> Simic, 1986	VI-VII	+									
129.	<i>P. haemorrhous</i> Meigen, 1822	V-X	+	+	+	+	+	+				+
130.	<i>P. tibialis</i> (Fallen, 1817)	V-X	+	+	+	+	+	+	+	+	+	+
	Subgenus <i>Paragus</i> s.str.											
131.	<i>P. albifrons</i> (Fallen, 1817)	V-VIII	+			+	+		+			+
132.	<i>P. bicolor</i> (Fabricius, 1794)	IV-X	+	+	+	+	+	+	+			+
133.	<i>P. bradescui</i> Stănescu, 1981	V-IX			+							
134.	<i>P. cinctus</i> Schiner & Egger, 1853	VI-VIII			+				+			+
135.	<i>P. majoranae</i> Rondani, 1857	V-IX	+	+	+	+	+	+	+			+
136.	<i>P. medeae</i> Stănescu, 1991	V-IX					+					
137.	<i>P. oltenicus</i> Stănescu, 1977	VI-X		+		+						
138.	<i>P. punctulatus</i> Zetterstedt, 1838	VII						+				
139.	<i>P. quadrifasciatus</i> Meigen, 1822	V-IX		+	+	+	+		+			
140.	<i>P. romanicus</i> Stănescu, 1992	V-VI			+	+						
141.	<i>P. strigatus</i> Meigen, 1822	V-IX				+	+					
	Subfamily MILESIINAE											
	Pipizini											
	<i>Heringia</i> Rondani, 1856											
142.	<i>H. curvinervis</i> (Strobl, 1898)	VII	+									
143.	<i>H. heringi</i> (Zetterstedt, 1843)	IV-VII	+		+		+	+				
144.	<i>H. senilis</i> Sack, 1938	V-IX	+				+					

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Neocnemodon</i> Goffe, 1944											
145.	<i>N. brevidens</i> (Egger, 1865)	V-VII	+				+					
146.	<i>N. fulvimanus</i> (Zetterstedt, 1843)	IV-VII						+				
147.	<i>N. latitarsis</i> (Egger, 1865)	IV-IX	+					+				+
148.	<i>N. pubescens</i> (Delucchi & Pschorn-Walker, 1955)	V										
149.	<i>N. vitripennis</i> (Meigen, 1822)	IV-IX				+		+				
	<i>Pipiza</i> Fallen, 1810											
150.	<i>P. austriaca</i> Meigen, 1822	V-IX										+
151.	<i>P. bimaculata</i> Meigen, 1822	V-VIII	+					+			+	+
152.	<i>P. fasciata</i> Meigen, 1822	V-VIII			+							+
153.	<i>P. fenestrata</i> Meigen, 1822	IV-VI			+			+				
154.	<i>P. festiva</i> Meigen, 1822	V-VI	+		+			+	+	+		+
155.	<i>P. lugubris</i> (Fabricius, 1775)	V-VII	+					+		+		+
156.	<i>P. luteitarsis</i> Zetterstedt, 1843	V	+									+
157.	<i>P. noctiluca</i> (Linnaeus, 1758)	V-IX	+		+			+				+
158.	<i>P. notata</i> Meigen, 1822	V	+									
159.	<i>P. quadrimaculata</i> (Panzer, 1804)	V-VIII	+		+			+	+	+		+
160.	<i>P. signata</i> Meigen, 1822	V-VIII	+		+			+		+		+
	<i>Pipizella</i> Rondani, 1856											
161.	<i>P. annulata</i> (Macquart, 1829)	VII-VIII	+		+							+
162.	<i>P. bispina</i> Simic, 1987	VI										+
163.	<i>P. divicoi</i> (Goeldlin de Tiefenau, 1974)	V-VIII	+							+		+
164.	<i>P. maculipennis</i> (Meigen, 1822)	V-VIII			+	+		+				+
163.	<i>P. divicoi</i> (Goeldlin de Tiefenau, 1974)	V-VIII	+							+		+
164.	<i>P. maculipennis</i> (Meigen, 1822)	V-VIII			+	+		+				+
165.	<i>P. pennina</i> (Goeldlin de Tiefenau, 1974)	V	+									
166.	<i>P. sacculata</i> Becker, 1921 = <i>beckeri</i> Brădescu, 1986 *	V	+									
167.	<i>P. siciliana</i> Nielsen & Torp, 1973	V	+									
168.	<i>P. viduata</i> Linnaeus, 1758 = <i>varipes</i> (Meigen, 1822)	V-IX	+		+						+	+
169.	<i>P. virens</i> (Fabricius, 1805)	IV-VIII	+		+			+		+		+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Trichopsomyia</i> Williston, 1888											
170.	<i>T. carbonaria</i> (Meigen, 1822)	VIII						+		+		+
171.	<i>T. flavitarsis</i> (Meigen, 1822)	V-VII					+	+				+
	<i>Triglyphus</i> Loew, 1840											
172.	<i>T. primus</i> Loew, 1840	V-VII	+		+			+				
	Cheilosini											
	<i>Chamaesyrrhus</i> Mik, 1895											
173.	<i>C. scaevoides</i> (Fallen, 1817)	VII-VIII				+		+				+
	<i>Cheilosia</i> Meigen, 1822											
	Group A - Sack											
174.	<i>C. ahenea</i> (Von Roser, 1840)	IV-VII						+				
175.	<i>C. antiqua</i> (Meigen, 1822)	V-VII	+		+	+		+	+	+		+
176.	<i>C. caerulescens</i> (Meigen, 1822)	V	+					+	+			
177.	<i>C. derasa</i> Loew, 1857	VII-VIII								+		+
178.	<i>C. faucis</i> (Becker, 1894)	VI-VII								+		
179.	<i>C. gagatea</i> Loew, 1857	VI-VII										+
180.	<i>C. grisella</i> (Becker, 1894)	V-VIII			+			+				
181.	<i>C. herculana</i> Brădescu 1982 = <i>kerteszi</i> (Szilady, 1938)*	V-IX	+						+			
182.	<i>C. hercyniae</i> Loew, 1857	VII	+		+			+				
183.	<i>C. impudens</i> (Becker, 1894)	V-VII	+									+
184.	<i>C. insignis</i> Loew, 1857	IV-V	+			+		+				+
185.	<i>C. laeviseta</i> Claussen, 1987 = <i>laevis</i> Becker, 1894 (without locality)											
186.	<i>C. laeiventris</i> Loew, 1857	V-VI						+				
187.	<i>C. latifacies</i> Loew, 1857	V-IX	+					+				
188.	<i>C. loewi</i> (Becker, 1894)	VIII			+			+				+
189.	<i>C. longula</i> (Zetterstedt, 1838)	V-IX	+		+	+	+					+
190.	<i>C. marginata</i> (Becker, 1894)	V-VII										+
191.	<i>C. nigripes</i> (Meigen, 1822)	V-X	+		+			+		+	+	+
192.	<i>C. nivalis</i> (Becker, 1894)	VII										+
193.	<i>C. pagana</i> (Meigen, 1822)	V-VIII	+			+		+		+	+	+
194.	<i>C. pedemontana</i> Rondani, 1857	VII-VIII										+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
195.	<i>C. personata</i> Loew, 1857	VI-VIII						+				+
196.	<i>C. pubera</i> (Zetterstedt, 1838)	V-VII	+		+			+				+
197.	<i>C. recens</i> (Becker, 1894)	V	+									
198.	<i>C. rufipes</i> Preyssler, 1793 = <i>soror</i> (Zetterstedt, 1843)	V-X	+		+	+		+	+			+
199.	<i>C. sahlbergi</i> (Becker, 1894)	V-VIII	+					+		+	+	+
200.	<i>C. scutellata</i> (Fallen, 1817)	V-IX	+	+	+	+	+	+	+	+	+	+
201.	<i>C. venosa</i> Loew, 1857	V			+			+				+
202.	<i>C. vicina</i> (Zetterstedt, 1849) = <i>nasutula</i> (Becker, 1894)	VI-VIII	+		+			+		+		+
	Group B - Sack											
203.	<i>C. barbata</i> Loew, 1857 = <i>honesta</i> Rondani, 1868	V-IX	+		+			+		+		+
204.	<i>C. frontalis</i> Loew, 1857	V-VI	+									
205.	<i>C. hypena</i> (Becker, 1894)	V-VI										+
206.	<i>C. illustrata</i> (Harris, 1780)	V-VIII	+		+			+	+	+	+	+
207.	<i>C. latifrons</i> (Zetterstedt, 1843) = <i>intonsa</i> Loew, 1857	VI - VIII								+		
208.	<i>C. melanopa</i> (Zetterstedt, 1843)	IV- VII	+		+			+				+
209.	<i>C. variabilis</i> (Panzer, 1798)	V- VIII	+	+	+	+	+	+	+	+	+	+
210.	<i>C. vulpina</i> (Meigen, 1822)	V- VII	+		+			+	+	+		+
	Group C - Sack											
211.	<i>C. albipila</i> Meigen, 1838	IV- VII			+			+				+
212.	<i>C. brachysoma</i> Egger, 1860	IV- IX			+	+		+				
213.	<i>C. bracus</i> Vujic& Claussen 1994	V		+								
214.	<i>C. brunnipennis</i> (Becker, 1894)	IV- VI	+									+
215.	<i>C. canicularis</i> (Panzer, 1801) = <i>naso</i> (Becker, 1894)	III- IX	+	+	+	+	+	+	+	+	+	+
216.	<i>C. chloris</i> (Meigen, 1822)	IV- VII	+		+	+		+				+
217.	<i>C. chrysocoma</i> (Meigen, 1822)	VIII			+			+			+	
218.	<i>C. dacica</i> Brădescu, 1977	VII										+
219.	<i>C. flavipes</i> (Panzer, 1798)	IV-V			+			+				+
220.	<i>C. grossa</i> (Fallen, 1817)	III-IV			+			+				+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
221.	<i>C. montana</i> Egger, 1860	VII-VIII										+
222.	<i>C. nebulosa</i> (Verrall, 1871)	IV-V			+	+		+	+			
223.	<i>C. orthotricha</i> Vujic & Claussen 1994	VII										+
224.	<i>C. pictipennis</i> Egger, 1860	VII-VIII			+			+			+	+
225.	<i>C. pini</i> (Becker, 1894)	IX	+									
226.	<i>C. portscinskiana</i> Stackelberg, 1960	VII-VIII	+									+
227.	<i>C. stupida</i> (Becker, 1894)	IV			+							
228.	<i>C. superba</i> (Becker, 1894)		+									
	Group D - Sack											
229.	<i>C. aerea</i> Dufour, 1848 = <i>zetterstedti</i> (Becker, 1894)	IV-IX	+		+	+		+			+	+
230.	<i>C. albitarsis</i> (Meigen, 1822)	V-VII	+	+	+	+	+	+	+	+	+	+
231.	<i>C. bergenstammi</i> Becker 1894	VI										+
232.	<i>C. carbonaria</i> Egger, 1890	V-VIII	+					+				+
233.	<i>C. cumanica</i> (Szilady, 1938)	IV-IX	+			+						
234.	<i>C. curvinervis</i> Becker, 1894	V										+
235.	<i>C. curvitibia</i> Becker, 1894	V										+
236.	<i>C. cynocephala</i> Loew, 1840	VII-VIII						+	+			+
237.	<i>C. fasciata</i> Schiner & Egger, 1853	VII						+				+
238.	<i>C. fraterna</i> (Meigen, 1830)	IV-VIII				+		+		+		+
239.	<i>C. gerstaeckeri</i> (Becker, 1894)	IV-VII			+	+						
240.	<i>C. gigantea</i> (Zetterstedt, 1838)	V-VIII	+		+			+				+
241.	<i>C. impressa</i> Loew, 1840	V-IX	+	+	+			+	+	+		+
242.	<i>C. lenis</i> (Becker, 1894) = <i>omissa</i> (Becker, 1894)	V-IX	+								+	+
243.	<i>C. lenta</i> (Becker, 1894)	IV-V	+		+							
244.	<i>C. melanura</i> (Becker, 1894) = <i>plumbella</i> (Becker, 1894)	V-VIII	+			+		+				+
245.	<i>C. morio</i> (Zetterstedt, 1838)	V-VI	+					+				
246.	<i>C. mutabilis</i> (Fallen, 1817)	V-VIII	+		+			+	+	+	+	+
247.	<i>C. pascuorum</i> (Becker, 1894)	V- VII	+							+		+
248.	<i>C. planifacies</i> (Becker, 1894)	VIII			+			+			+	

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
249.	<i>C. polita</i> Becker, 1894	V										+
250.	<i>C. proxima</i> (Zetterstedt, 1843)	III- VIII	+							+	+	+
251.	<i>C. rhynchops</i> Egger, 1860	V- VIII	+									+
252.	<i>C. rotundiventris</i> (Becker, 1894)							+				+
253.	<i>C. ruficollis</i> (Becker, 1894)	V- VIII	+									+
254.	<i>C. rufimana</i> (Becker, 1894)	IV- VI	+			+		+				
255.	<i>C. ruralis</i> (Meigen, 1822) = <i>praecox</i> (Zetterstedt, 1843)	IV- VI	+		+			+	+		+	+
256.	<i>C. schmabli</i> Becker, 1894	IV										+
257.	<i>C. semifasciata</i> (Becker, 1894)	IV- VII	+		+						+	+
258.	<i>C. velutina</i> Loew, 1840	VIII						+				+
259.	<i>C. vernalis</i> (Fallen, 1817)	VI-IX	+		+			+		+		+
	<i>Ferdinandea</i> Rondani, 1844											
260.	<i>F. aurea</i> Rondani, 1844	V- X										
261.	<i>F. cuprea</i> (Scopoli, 1763)	V- X	+		+			+			+	+
262.	<i>F. nigrifrons</i> (Egger, 1860)	V- VII			+							+
263.	<i>F. ruficornis</i> (Fabricius, 1775)	VI			+							+
	<i>Pelecocera</i> Meigen, 1822											
264.	<i>P. latifrons</i> Loew, 1856	IV			+			+				
265.	<i>P. tricincta</i> Meigen, 1822	VI- VIII						+				
	<i>Portevinia</i> Goffe, 1944											
266.	<i>P. maculata</i> (Fallen, 1817)	IV- VIII						+				
	<i>Rhingia</i> Scopoli, 1763											
267.	<i>R. borealis</i> Ringdahl, 1928 = <i>austriaca</i> Meigen, 1830	IV- VIII						+				+
268.	<i>R. campestris</i> Meigen, 1822	IV- VIII	+		+			+	+		+	+
269.	<i>R. rostrata</i> (Linnaeus, 1758)	IV- X	+	+	+			+	+	+	+	+
	Callicerini											
	<i>Callicera</i> Panzer, 1809											
270.	<i>C. aenea</i> (Fabricius, 1781)	VI- VII	+								+	
271.	<i>C. rufa</i> Schummel, 1842	IX									+	+
272.	<i>C. spinolae</i> Rondani, 1844	IX- X	+			+						

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	Volucellini											
	<i>Volucella</i> Geoffroy, 1762											
273.	<i>V. bombylans</i> (Linnaeus, 1758)	V- VIII	+					+	+	+	+	+
274.	<i>V. inanis</i> (Linnaeus, 1758)	VII- X	+	+	+			+	+	+	+	+
275.	<i>V. inflata</i> (Fabricius, 1794)	IV- VIII	+		+			+	+		+	+
276.	<i>V. pellucens</i> (Linnaeus, 1758)	V- IX	+	+	+	+	+	+	+	+	+	+
277.	<i>V. zonaria</i> (Poda, 1761)	V- IX	+	+	+	+	+	+	+	+	+	+
	Chrysogasterini											
	<i>Brachyopa</i> Meigen, 1822											
278.	<i>B. bicolor</i> (Fallen, 1817)	IV- VI	+		+			+				+
279.	<i>B. dorsata</i> Zetterstedt, 1837	IV- V	+		+			+				
280.	<i>B. maculipennis</i> Thompson, 1980	V-VI	+				+					
281.	<i>B. panzeri</i> Goffe, 1945	V	+					+				+
282.	<i>B. pilosa</i> Collin, 1939	V	+									
283.	<i>B. plena</i> Collin, 1939	IV- V			+							
284.	<i>B. testacea</i> (Fallen, 1817)	VI								+	+	
285.	<i>B. vittata</i> Zetterstedt, 1843	V- VII	+							+		+
	<i>Chrysogaster</i> Meigen, 1803											
286.	<i>C. basalis</i> Loew, 1857	V- VIII	+									+
287.	<i>C. cemiteriorum</i> Linnaeus, 1758 = <i>chalybeata</i> Meig., 1822	VII						+		+		+
288.	<i>C. simplex</i> Loew, 1843	IV- VII			+	+	+	+		+		
289.	<i>C. solstitialis</i> (Fallen, 1817)	IV- VIII	+	+	+	+	+	+	+	+	+	+
290.	<i>C. viduata</i> (Linnaeus, 1758)	IV- VII	+		+	+			+	+		+
291.	<i>C. virescens</i> Loew, 1854	VI- VII								+		
	<i>Hammerschmidtia</i> Schummel, 1834											
292.	<i>H. ferruginea</i> (Fallen, 1817)	VII- VIII						+				+
	<i>Lejogaster</i> Rondani, 1857											
293.	<i>L. metallina</i> (Fabricius, 1781)	IV- IX			+	+		+	+	+		+
294.	<i>L. nigricans</i> Stackelberg, 1922	VI								+		
295.	<i>L. tarsata</i> (Meigen, 1822)	V- X	+		+	+	+	+			+	+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Liochrysgaster</i> Stackelberg, 1924											
296.	<i>L. przewalskii</i> Stackelberg, 1924	VI								+		
	<i>Melanogaster</i> Maibach & al., 1994											
297.	<i>M. aerosa</i> Loew, 1840	VIII			+							
298.	<i>M. hirtella</i> Loew, 1843	V-VI			+					+		+
299.	<i>M. parumplicata</i> Loew, 1840	VI										+
	<i>Myolepta</i> Newman, 1838											
300.	<i>M. luteola</i> (Gmelin, 1790) = <i>dubia</i> (Fabricius, 1805)	V- VII	+		+			+				+
301.	<i>M. nigritarsis</i> Coe, 1957	V- VIII	+									+
302.	<i>M. obscura</i> Becker, 1882	V-VI	+							+		
303.	<i>M. potens</i> (Harris, 1780)	V- VI	+		+							+
304.	<i>M. ruficornis</i> (Zetterstedt, 1843)	VIII								+		
305.	<i>M. vara</i> (Panzer, 1798)	V-VII	+							+		+
	<i>Neoascia</i> Willinston, 1886											
	Subgenus <i>Neoascia</i> s.str.											
306.	<i>N. annexa</i> (Müller, 1776) = <i>floralis</i> (Meigen, 1822)	VII						+	+	+		+
307.	<i>N. podagrica</i> (Fabricius, 1775)	V- IX	+					+	+	+		+
308.	<i>N. tenur</i> Harris, 1770 = <i>dispar</i> (Meigen, 1822)	V-VI								+		+
	Subgenus <i>Neoasciella</i> Stackelberg, 1965											
309.	<i>N. geniculata</i> (Meigen, 1822)	IV- VIII						+		+		
310.	<i>N. interrupta</i> (Meigen, 1822)	IV- IX		+	+	+	+	+				
311.	<i>N. meticulosa</i> (Scopoli, 1763)	IV- VI			+	+				+		
312.	<i>N. obliqua</i> Coe, 1940	V- IX			+			+				
313.	<i>N. unifasciata</i> (Strobl, 1898)	VI										+
	<i>Orthonevra</i> Macquart, 1829											
314.	<i>O. auritarsis</i> Brădescu, 1992									+		
315.	<i>O. brevicornis</i> (Loew, 1843)	V- VII	+				+	+		+		+
316.	<i>O. elegans</i> (Meigen, 1822)	V- VIII						+				+
317.	<i>O. frontalis</i> (Loew, 1843)	IV- V			+							+



Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
318.	<i>O. geniculata</i> (Meigen, 1830)	IV- VII						+		+		
319.	<i>O. incisa</i> (Loew, 1843)	VI- VII						+			+	
320.	<i>O. intermedia</i> (Lundbeck, 1916)	VI- VIII								+		
321.	<i>O. nobilis</i> (Fallen, 1817)	V- VIII	+		+	+		+		+	+	+
322.	<i>O. plumbago</i> (Loew, 1840)	VI- VII						+				
323.	<i>O. shusteri</i> Brădescu, 1993											
324.	<i>O. tristis</i> (Loew, 1817) = <i>omytes</i> (Seguy, 1961) <i>Riponnensia</i> Maibach, Goeldlin de Tiefenau & Speight, 1994	VII- VIII										+
325.	<i>R. longicornis</i> (Loew, 1843)	VIII			+							
326.	<i>R. splendens</i> (Meigen, 1822) <i>Sphegina</i> Meigen, 1822 Subgenus <i>Asiosphegina</i> Stackelberg, 1975	VI	+		+			+				
327.	<i>A. sibirica</i> Stackelberg, 1953 Subgenus <i>Sphegina</i> s.str.	VI- VIII	+					+		+		+
328.	<i>S. atrolutea</i> Lucas, 1986	VI									+	
329.	<i>S. clavata</i> (Scopoli, 1763)	V- VII						+				+
330.	<i>S. clunipes</i> (Fallen, 1816)	V- VIII	+	+	+	+	+	+	+	+	+	+
331.	<i>S. cornifera</i> Becker, 1921	VI- VIII	+									
332.	<i>S. elegans</i> Schummel, 1843	V- VIII	+		+			+	+	+		+
333.	<i>S. latifrons</i> Egger, 1865	V- IX	+		+			+		+	+	+
334.	<i>S. montana</i> Becker, 1921	V- VI	+					+			+	
335.	<i>S. platychira</i> Szilady, 1937	V- VII	+					+				+
336.	<i>S. sphaginea</i> (Zetterstedt, 1838)	VII						+		+		+
337.	<i>S. sublatifrons</i> Vujic, 1990	VI- VII								+		
338.	<i>S. verrecunda</i> Collin, 1937 Sericomyni <i>Arctophila</i> Schiner, 1860							+		+		
339.	<i>A. bequaerti</i> Herve-Bazin, 1913	VII- IX										+
340.	<i>A. bombiformis</i> (Fallen, 1810)	VI- IX						+		+	+	+
341.	<i>A. superbiens</i> Müller, 1776 = <i>mussitans</i> (Fabricius, 1776)	VI- IX						+			+	+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Sericomyia</i> Meigen, 1803											
342.	<i>S. lappona</i> (Linnaeus, 1758)	V- VIII								+		+
343.	<i>S. silentis</i> (Harris, 1776)	VII- VIII						+			+	+
	Eumerini											
	<i>Eumerus</i> Meigen, 1822											
344.	<i>E. acuticornis</i> Sack, 1933	VIII			+							
345.	<i>E. amoenus</i> Loew, 1848	V- X	+		+							
346.	<i>E. angustifrons</i> Loew, 1848	IV- VI	+									
347.	<i>E. argyropus</i> Loew, 1848	IX			+							
348.	<i>E. basalis</i> Loew, 1848	V- VI	+		+							+
349.	<i>E. clavatus</i> Becker, 1921	VII			+							
350.	<i>E. flavitarsis</i> Zetterstedt, 1843	V- IX			+					+		
351.	<i>E. grandis</i> Meigen, 1822	V	+					+				
352.	<i>E. hungaricus</i> Szilady, 1940	VIII- X	+									
353.	<i>E. nudus</i> Loew, 1848	VI										+
354.	<i>E. ornatus</i> Meigen, 1822	V- X	+		+		+			+		
355.	<i>E. ovatus</i> Loew, 1848	V- VI	+									+
356.	<i>E. pulchellus</i> Loew, 1848	V- VI	+									
357.	<i>E. ruficornis</i> Meigen, 1822	VI- VIII			+			+			+	
358.	<i>E. rusticus</i> Sack, 1932	VII	+									
359.	<i>E. sabulorum</i> (Fallen, 1817)	V- IX	+					+				
360.	<i>E. sinuatus</i> Loew, 1855	V	+									
361.	<i>E. sogdianus</i> Stackelberg, 1952	V- IX			+	+	+					+
362.	<i>E. strigatus</i> (Fallen, 1817)	V- X	+	+	+	+	+	+	+	+	+	+
363.	<i>E. tarsalis</i> Loew, 1848	VI	+		+			+				
364.	<i>E. tauricus</i> Stackelberg, 1952											+
365.	<i>E. tricolor</i> Fabricius, 1798	V- VI	+			+		+				+
366.	<i>E. tuberculatus</i> Rondani, 1857	V- X			+		+	+				+
367.	<i>E. uncipes</i> Rondani, 1850	VII	+									
	<i>Merodon</i> Meigen, 1803											
368.	<i>M. aberrans</i> Egger, 1860	VI- VIII	+	+	+	+		+				+
369.	<i>M. aeneus</i> Meigen, 1822 = * <i>ambiguus</i> Brădescu 1986	VI- VIII	+		+			+				+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
370.	<i>M. albifrons</i> Meigen, 1822	V- VIII	+									
371.	<i>M. alexeji</i> Paramonov, 1825	VII			+							
372.	<i>M. armipes</i> Rondani, 1843	IV- VI	+		+			+				+
373.	<i>M. avidus</i> (Rossi, 1790)	V- IX	+		+			+			+	+
374.	<i>M. bessarabicus</i> Paramonov, 1942	V- VIII			+	+						
375.	<i>M. caucasicus</i> Portschinsky, 1877	VII										+
376.	<i>M. chalybeatus</i> Sack, 1913	VIII- IX				+						
377.	<i>M. cinereus</i> (Fabricius, 1794)	VII- IX	+	+	+				+	+	+	+
378.	<i>M. clavipes</i> (Fabricius, 1781)	V- VI	+									+
379.	<i>M. constans</i> (Rossi, 1794)	VIII- IX	+									+
380.	<i>M. crymensis</i> Paramonov, 1925	V- VI	+		+				+			+
381.	<i>M. dobrogensis</i> Brădescu, 1982	VIII- IX				+						
382.	<i>M. equestris</i> (Fabricius, 1794)	V- VIII	+		+			+	+	+		+
383.	<i>M. femoratus</i> Sack, 1913	V- X				+	+					
384.	<i>M. flavus</i> Sack, 1913	V	+									
385.	<i>M. funestus</i> (Fabricius, 1794)	V- VI	+					+			+	+
386.	<i>M. loewi</i> Vander Goot, 1964	V- VI										
387.	<i>M. nigratarsis</i> Rondani, 1845	VI				+						
388.	<i>M. planiceps</i> Loew, 1862 (without locality)											
389.	<i>M. pruni</i> (Rossi, 1790) (without locality)											
390.	<i>M. ruficornis</i> Meigen, 1822	VI- VIII			+			+			+	+
391.	<i>M. rufus</i> Meigen, 1838	VI									+	+
392.	<i>M. spinitarsis</i> Paramonov, 1929	VI				+						
393.	<i>M. recurvus</i> Strobl, 1898 = <i>strobli</i> Brădescu, 1986 *	IV- V	+		+				+			
394.	<i>M. tener</i> Sack, 1913	VII						+				
	<i>Psilota</i> Meigen, 1822											
395.	<i>P. anthracina</i> Meigen, 1822	VI- VII						+			+	+
396.	<i>P. innupta</i> Rondani, 1857	V- VIII	+								+	+
	<i>Psarini</i>											
	<i>Psarus</i> Latreille, 1804											
397.	<i>P. abdominalis</i> (Fabricius, 1794)	V- VIII	+		+			+	+		+	+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	Ceriodini											
	<i>Ceriana</i> Rafinesque, 1815											
398.	<i>C. conopsoides</i> (Linnaeus, 1758)	IV- VIII	+		+	+	+	+				+
399.	<i>C. vespiformis</i> (Latreille, 1804)	V- VIII	+									
	<i>Sphiximorpha</i> Rondani, 1850											
400.	<i>S. binominata</i> (Verrall, 1901)	VI	+									+
401.	<i>S. subsessilis</i> (Illiger, 1807)	IV- V	+					+				+
402.	<i>S. worelli</i> (Brădescu, 1972)	V- VI	+									+
	Eristalini											
	<i>Eristalinus</i> Rondani, 1845											
	Subgenus <i>Eristalinus</i> s.str.											
403.	<i>E. sepulchralis</i> (Linnaeus, 1758)	IV- X	+	+	+	+	+	+	+	+	+	+
	Subgenus <i>Lathyrophthalmus</i> Mik, 1897											
404.	<i>L. aeneus</i> (Scopoli, 1763)	III- X	+	+	+	+	+	+	+	+	+	+
	<i>Eristalis</i> Latreille, 1804											
	Subgenus <i>Eoseristalis</i> Kanervo, 1938											
405.	<i>E. abusivus</i> Collin, 1931	VI- IX								+	+	+
406.	<i>E. alpinus</i> (Panzer, 1798)	IV- X	+		+						+	+
407.	<i>E. anthophorina</i> (Fallen, 1817)	V- VIII						+				
408.	<i>E. arbustorum</i> (Linnaeus, 1758)	IV- X	+	+	+	+	+	+	+	+	+	+
409.	<i>E. cryptarum</i> (Fabricius, 1794)	V- VIII								+	+	
410.	<i>E. horticola</i> (De Geer, 1776)	VI- IX	+	+	+	+	+	+	+	+	+	+
411.	<i>E. interruptus</i> (Poda, 1761) = <i>nemorum</i> auct. nec Linn.	IV-IX	+	+	+	+	+	+	+	+	+	+
412.	<i>E. intricaria</i> (Linnaeus, 1758)	V- IX			+		+	+	+			+
413.	<i>E. jugorum</i> Egger, 1858	V- IX	+		+			+		+		+
414.	<i>E. nigratarsis</i> Macquart, 1834	VI			+							
415.	<i>E. oestraceus</i> (Linnaeus, 1758)	IV- VI						+				+
416.	<i>E. pertinax</i> (Scopoli, 1763)	IV- X	+	+	+	+	+	+	+	+	+	+
417.	<i>E. piceus</i> (Fallen, 1816)	VI						+				+
418.	<i>E. pratorum</i> Meigen, 1822	III- X	+	+	+	+	+	+	+	+	+	+
419.	<i>E. rupium</i> Fabricius, 1805	VI- IX	+	+	+	+	+	+	+	+	+	+
420.	<i>E. vitripennis</i> Stöbl, 1893	V- VIII	+		+							+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	Subgenus <i>Eristalis</i> s.str.											
421.	<i>E. tenax</i> (Linnaeus, 1758)	III- XI	+	+	+	+	+	+	+	+	+	+
	Subgenus <i>Helophilus</i> Meigen, 1822											
	Subgenus <i>Anasimyia</i> Schiner, 1864											
422.	<i>A. contractus</i> Claussen & Torp, 1980	V- VII			+		+					
423.	<i>A. interpunctus</i> (Harris, 1776)	IV- VI										+
424.	<i>A. lineatus</i> (Fabricius, 1787)	V- IX		+	+		+			+	+	+
425.	<i>A. humulatus</i> (Meigen, 1822)	IV										+
426.	<i>A. transfugus</i> (Linnaeus, 1758)	V- VII			+		+	+				
	Subgenus <i>Helophilus</i> s.str.											
427.	<i>H. continuus</i> Loew, 1854	V- VII					+					
428.	<i>H. hybridus</i> Loew, 1846	VI- IX					+			+	+	+
429.	<i>H. pendulus</i> (Linnaeus, 1758)	IV- X	+	+	+	+	+	+	+	+	+	+
430.	<i>H. trivittatus</i> (Fabricius, 1805)	V- X	+	+	+	+	+	+	+	+	+	+
	Subgenus <i>Parhelophilus</i> Girschner, 1897											
431.	<i>P. frutetorum</i> (Fabricius, 1775)	V- VIII			+	+	+	+	+			+
432.	<i>P. versicolor</i> (Fabricius, 1794)	IV- IX			+		+	+	+			+
	Subgenus <i>Lejops</i> Rondani, 1857											
433.	<i>L. vittatus</i> (Meigen, 1822)	VI- VIII				+	+	+				
	Subgenus <i>Mallota</i> Meigen, 1822											
434.	<i>M. cimbiciformis</i> (Fallen, 1817)	V- VI	+		+			+		+		
435.	<i>M. fuciformis</i> (Fabricius, 1794)	III- V	+		+			+				
436.	<i>M. tricolor</i> Loew, 1871	VI									+	
	Subgenus <i>Mesembrinus</i> Rondani, 1857											
437.	<i>M. peregrinus</i> (Loew, 1846)	V- IX			+	+	+					
	Subgenus <i>Myatropa</i> Rondani, 1845											
438.	<i>M. florea</i> (Linnaeus, 1758)	IV- IX	+	+	+	+	+	+	+	+	+	+
	Subgenus <i>Milesiini</i>											
	Subgenus <i>Blera</i> Billberg, 1820											
439.	<i>B. fallax</i> (Linnaeus, 1758)	VI- VII						+		+		+
	Subgenus <i>Caliprobola</i> Rondani, 1845											
440.	<i>C. speciosa</i> (Rossi, 1790)	V- VII	+		+			+	+			+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Brachymyia</i> Williston, 1882											
441.	<i>B. berberina</i> (Fabricius, 1805)	V- VIII	+		+			+	+	+		+
442.	<i>B. floccosa</i> (Meigen, 1822)	IV- VII	+									
	<i>Criorhina</i> Meigen, 1822											
443.	<i>C. asilica</i> (Fallen, 1816)	IV- VIII	+		+			+	+		+	+
444.	<i>C. pachymera</i> (Egger, 1858)	V			+							
445.	<i>C. ranunculi</i> (Panzer, 1804)	IV- V	+					+				+
	<i>Lejota</i> Rondani, 1857											
446.	<i>L. ruficornis</i> (Zet ia terstedt, 1843)	V	+							+		
	<i>Milesia</i> Latreille, 1804											
447.	<i>M. semiluctifera</i> (Villers, 1789)	VI- IX			+	+						
	<i>Pocota</i> Le Peletier & Serville, 1828											
448.	<i>P. personata</i> (Harris, 1780)	V- VII	+					+				+
	<i>Spilomyia</i> Meigen, 1803											
449.	<i>S. digitata</i> Rondani, 1865	VII					+					
450.	<i>S. diophthalma</i> (Linnaeus, 1758)	VIII	+									+
451.	<i>S. manicata</i> (Rondani, 1865)	VI- X	+								+	+
452.	<i>S. saltuum</i> (Fabricius, 1794)	VII- X	+		+		+	+			+	+
	<i>Syritta</i> Le Peletier & Serville, 1828											
453.	<i>S. pipiens</i> (Linnaeus, 1758)	IV- X	+	+	+	+	+	+	+	+	+	+
	<i>Temnostoma</i> Le Peletier & Serville, 1828											
454.	<i>T. apiforme</i> (Fabricius, 1794)											
455.	<i>T. bombylans</i> (Fabricius, 1805)	V- VIII	+		+				+	+		+
456.	<i>T. meridionale</i> Krivosheina & Mamaev, 1962	V	+									
457.	<i>T. vespiforme</i> (Linnaeus, 1758)	V- VIII	+	+	+			+	+	+	+	+
	<i>Tropidia</i> Meigen, 1822											
458.	<i>T. scita</i> (Harris, 1780)		V- VI			+		+				
	Xylotini											
	<i>Brachypalpoides</i> Hipparis, 1978											
459.	<i>B. lentus</i> (Meigen, 1822)	IV- VIII	+		+			+	+			+

Table 1 (continued)

Nr. Crt.	Subfamily, tribe, genus, subgenus and species	Flying period	BN	OT	MT	DB	DD	MD	CR	SM M	BV	TR
	<i>Brachypalpus</i> Macquart, 1834											
460.	<i>B. chrysites</i> Egger, 1859	V- VII	+									+
461.	<i>B. meigeni</i> Schiner, 1857	IV- VII	+	+							+	
462.	<i>B. valgus</i> (Panzer, 1798) = <i>laphriphormis</i> (Fallen, 1816)	IV- VIII	+		+	+		+				+
	<i>Chalcosyrphus</i> Curran, 1925											
	Subgenus <i>Xylotina</i> Hippha, 1978											
463.	<i>X. nemorum</i> (Fabricius, 1805)	V- VIII	+		+	+		+	+	+	+	+
	Subgenus <i>Xylotodes</i> Shanon, 1926											
464.	<i>X. eunotus</i> (Loew, 1873)	V	+									
465.	<i>X. piger</i> (Fabricius, 1794)	VII	+						+	+		
	Subgenus <i>Xylotomima</i> Shanon, 1926											
466.	<i>X. femoratus</i> (Linnaeus, 1758) = <i>curvipes</i> (Loew, 1854)	IV- VIII	+		+			+	+		+	+
467.	<i>X. pannonicus</i> (Oldenberg, 1916)	VI- VII	+					+				+
468.	<i>X. rufipes</i> (Loew, 1873)	V- VI	+					+				
	<i>Xylota</i> Meigen, 1822											
469.	<i>X. coeruleiventris</i> Zetterstedt, 1838	V- VII	+							+		+
470.	<i>X. florum</i> (Fabricius, 1805)	V- VIII	+		+			+			+	+
471.	<i>X. ignava</i> (Panzer, 1798)	V- IX	+		+	+		+	+	+	+	+
472.	<i>X. meigeniana</i> Stackelberg, 1964	VII- VIII										+
473.	<i>X. segnis</i> (Linnaeus, 1758)	IV- IX	+	+	+	+	+	+	+	+	+	+
474.	<i>X. semulatra</i> (Harris, 1780)	V- VIII	+				+	+			+	+
475.	<i>X. sylvarum</i> (Linnaeus, 1758)	V- IX	+	+	+	+	+	+	+	+	+	+
476.	<i>X. tarda</i> Meigen, 1822	VII- VIII	+					+		+		+
477.	<i>X. xanthocnema</i> Collin, 1939	V- VIII	+		+			+		+		+
	Subfamily MICRODONTINAE											
	<i>Microdon</i> Meigen, 1803											
478.	<i>M. devius</i> (Linnaeus, 1761)	IV- VIII	+		+			+	+	+		+
479.	<i>M. eggeri</i> Mik, 1897	V- VIII	+					+				+
480.	<i>M. latifrons</i> Loew, 1856	V- VII	+					+				+
481.	<i>M. mutabilis</i> (Linnaeus, 1758)	IV- VIII	+		+			+	+			+
	Total		263	53	220	102	93	271	112	149	121	318

SIRFIDELE (DIPTERA: SYRPHIDAE) DIN ROMÂNIA.  
LISTA REVIZUITĂ, FENOLOGIA, DISTRIBUȚIA

REZUMAT

Lucrarea de față este o sinteză a datelor obținute din studiul bibliografiei, al colecțiilor muzeale păstrate la Muzeul Național de Istorie Naturală "Grigore Antipa" din București, la Muzeul de Istorie Naturală din Sibiu și alte muzee din România, ca și din cercetările noastre personale pe teren și în laborator.

Am identificat astfel, până în prezent, un număr de 481 de specii de sirfide descoperite în mai multe etape de către 68 de autori care și-au adus contribuția în 135 lucrări de specialitate publicate începând din anul 1853 (Mayr, 1853) până în prezent.

Această lucrare este o reflectare a stadiului actual de cunoaștere a familiei Syrphidae în România, fiind numai o etapă a acestui proces, care sperăm că va avea continuitate în viitor. Considerăm astfel această lucrare ca un punct de plecare pentru cercetările viitoare.

LITERATURE CITED

- BRĂDESCU, VL., 1991 – Les Syrphides de Roumanie (Diptera, Syrphidae). Clés de détermination et répartition. Travaux du Muséum d'Histoire Naturelle "Grigore Antipa", 31: 7–83.
- BRĂDESCU, VL., 1992 a – Nouvelle données pour la faune de Syrphidae (Diptera, Syrphidae) de Roumanie. Travaux du Muséum d'Histoire Naturelle "Grigore Antipa", 32: 9–12.
- BRĂDESCU, VL., 1992 b – *Orthonevra auritarsis* sp. n. (Diptera, Syrphidae). Travaux du Muséum d'Histoire Naturelle "Grigore Antipa", 32: 13–16.
- BRĂDESCU, VL., 1993 a – *Orthonevra shusteri* n. sp. et deux espèces signales pour la première fois dans la faune de Roumanie (Diptera, Syrphidae). Travaux du Muséum d'Histoire Naturelle "Grigore Antipa", 33: 7–10.
- BRĂDESCU, VL., 1993 b – Date noi privind fauna sirfidologică a Parcului Național Retezat (Diptera, Syrphidae). Ocrotirea naturii și a mediului înconjurător, 37 (1): 49–50. București. (in Romanian)
- BRĂDESCU, VL., 1994 a – Sinonimizări, taxoni revalidați, corecturi de prioritate și de nomenclatură, precum și două specii noi pentru fauna României (Diptera, Syrphidae). Buletin de infomare. Societatea Lepidopterologică Română, 5 (2): 107–112. (in Romanian)
- BRĂDESCU, VL., 1994 b – Quelques données récentes et correction concernant notre travail «Les Syrphides de Roumanie (Diptera, Syrphidae). Clés de détermination et répartition». (Travaux du Muséum d'Histoire Naturelle "Grigore Antipa", vol. 31, 1991). Travaux du Muséum d'Histoire Naturelle "Grigore Antipa" 34: 7–11.
- BRĂDESCU, VL., 1994 c – Flower Flies (Diptera, Syrphidae) on *Caltha palustris* L. Travaux du Muséum d'Histoire Naturelle "Grigore Antipa", 34: 13–15.
- BRĂDESCU, VL., 1995 – Données nouvelles concernant la faune diptérologique (Syrphidae) du Parc National Domogled – Valée de la Cerna (Roumanie). Travaux du Muséum d'Histoire Naturelle "Grigore Antipa", 35: 419–422.
- BRĂDESCU, VL., 1996 – Données nouvelles concernant la faune diptérologique (Syrphidae) de Roumanie le complex deltaïque du Danube, le musée du village a Bucarest et le Parc National de Retezat. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", 36: 291–294.
- BRĂDESCU, VL., 1997 a – Données nouvelles concernant la faune de syrphides (Diptera: Syrphidae) de Roumanie. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", 39: 183–186.
- BRĂDESCU, VL., 1997 b – Interferențe ecologice în entomofauna parcurilor naționale Retezat și Valea Cernei. Societatea Lepidopterologică Română, 4 (11): 229–242, Cluj–Napoca. (in Romanian)
- BRĂDESCU, VL., 1998 – Note concernant des nouvelles mentions des syrphides (Diptera) en Roumanie. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", 40: 367–370.
- BRĂDESCU, VL., 1999 – Species of *Cheilosia* Meigen, 1822 (Diptera, Syrphidae) mentioned for the first time in Romanian fauna and in the National Park of Retezat Mountains. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", 41: 367–371.
- BRĂDESCU, VL., C. PÂRVU, 2002 – Recent data about some syrphids (Diptera: Syrphidae) from Maramureș, Romania. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", 44: 299–303.



- DIRICKX, H. G., 1993 – Atlas des Diptères syrphides de la région méditerranéenne. Geneve (Suisse), 317 pp.
- GOELDLIN DE TIEFENAU, P., 1976 - Révision du genre *Paragus* (Dipt. Syrphidae) de la région paléarctique occidentale. *In: Mitteilungen der Schweizerischen Entomologischen Gesellschaft*, 49 :79-108.
- GOELDLIN DE TIEFENAU, P., 1989 - Sur plusieurs espèces de *Sphaerophoria* (Diptera, Syrphidae) nouvelles ou méconnues des régions paléarctique et néarctique. *In: Bulletin de la Société Entomologique Suisse*, 62: 41- 66.
- HOLINKA, J., L. MAZÁNEK, 1997 – Syrphidae. Pp: 60-66. *In: Chvála, M.*, “Check List of Diptera (Insecta) of the Czech and Slovak Republics”. Karolinum Charles University Press, Prague.
- JESSAT, M., 1998 – Neue und seltene Schwebfliegen (Diptera, Syrphidae) für die Fauna Rumäniens. *In: Mauritiana* 16 (3): 549–564, Altenburg.
- LEHRER, A. Z., M. LEHRER, 1966-1968 - Syrphidae (Diptera) de Roumanie. Révision systématique, synonymique et zoogéographique. *In: Bulletin de la Société Entomologique Suisse Mulhouse*, 1-5: 1-66.
- MAYR, G. L., 1853 – Beiträge zur Insektenfauna von Siebenbürgen. *In: Verhandlungen und Mitteilungen, Hermannstadt*, 4 (8): 141–143.
- MERZ, B., G. BÄCHLI, J. P. HAENNI, Y. GONSETH, 1998 – “Syrphidae”. *In: ”Fauna Helvetica”, “Diptera, checklist”, Centre suisse de cartographie de la faune (CSCF), Schweizerische Entomologische Gesellschaft (SEG)*, 1: 1–370.
- PÂRVU, C., 2003 a – Faunistical data on some dipterans (Insecta: Diptera) of Piatra Craiului National Park. Romania. *In: O. Pop, M. Vergheș (eds), ”Reserch in Piatra Craiului National Park*, 1: 181-186. Piatra Craiului National Park Administration
- PÂRVU, C., 2003 b – Faunistic materials (Insecta: Diptera) for the knowledge of the biodiversity of Maramureș Depression, Romania. *Travaux du Muséum National d’Histoire Naturelle ”Grigore Antipa”*, 45: 227–277.
- PECK, L., 1988 – Fam. Syrphidae. *In: A. Soos, L. Papp (eds), Catalogue of Palaearctic Diptera*, Budapest, 8: 11–230.
- RÁKOSY L., C. STĂNESCU, V. VICOL, 1993 – Rezultatele colectărilor realizate în prima Tabără entomologică SLR, Munții Ciucaș, 16–25 iulie 1993. *Buletin de informare. Societatea Lepidopterologică Română*, 4 (2): 65–76, Cluj–Napoca. (in Romanian)
- STĂNESCU, C., 1993 – Bibliografia referitoare la fam. Syrphidae (Diptera) din România (1853–1993). *Buletin de informare. Societatea Lepidopterologică Română*, 4 (2): 55–63, Cluj–Napoca. (in Romanian)
- STĂNESCU, C., 1996 – Cercetări faunistice, zoogeografice și ecologice referitoare la speciile de sirfide din România (Diptera, Syrphidae). Teza de doctorat. Universitatea “Babes–Bolyai”, Facultatea de Biologie–Geol., Catedra de Zoologie. (Faunistical, zoogeographical and ecological research concerning syrphids (Diptera, Syrphidae) from Romania). PhD thesis “Babes–Bolyai” University, Biology–Geology Faculty, Zoological Department Cluj–Napoca. 380 pp. (in Romanian, unpublished)
- STĂNESCU, C., 1997 – Diptera, Syrphidae. *In: L. Rákosy & coll. ”Rezultatele taberei entomologice din Cheile Tișitei, Munții Vrancei, 26.06 – 6.07.1997. Die Ergebnisse der Entomologischer Sammelausfluges in Cheile Tișitei, Vrancea Gebirge, 26.06 – 6.07.1997 Buletin de informare. Societatea Lepidopterologică Română*, 8 (1–2): 48–52, Cluj–Napoca. (in Romanian)
- STĂNESCU, C., 1998 a – Date privind răspândirea genului *Paragus* Latr. (Diptera, Syrphidae) în România. *Studii și Comunicări, Muzeul Brukenthal, Științe Naturale*, 27: 331–345. (in Romanian)
- STĂNESCU, C., 1998 b – Syrphides (Diptera, Syrphidae) in the Danube Delta, Romania. Abstracts, 4th International Congress Dipterology : 218, Oxford, England.
- STĂNESCU, C., 2000 – Date privind fauna de sirfide (Diptera, Syrphidae) din bazinul superior și mijlociu al Oltului. Pp. 364-369. *In: Lucrările celei de a V-a Conferințe Naționale pentru Protecția Mediului*, 26-27 mai 2000, Universitatea Transilvania, Brașov. (in Romanian)
- STĂNESCU, C., 2003 – Die Bedeutung der Sammlungen des Naturwissenschaftlichen Museums in Sibiu (Hermannstadt) für die Erforschung der Schwebfliegen Fauna Rumäniens (Diptera, Syrphidae). *In: Der Siebenbürgische Verein für Naturwissenschaften zu Hermannstadt (1849–1949), Jubiläumband, Arbeitskreis für Siebenbürgische Landeskunde e. v. Heidelberg, VII, Hora Verlag Hermannstadt, Sibiu, Societatea Ardeleană pentru Științele Naturii din Sibiu (1849–1949) volum omagial*, 28: 177–200.

- SUSTER, P., 1959 – Diptera, Syrphidae. *In: Fauna Republicii Populare Romîne, Insecta*, 11 (3): 1-286.  
(in Romanian)
- VUJIĆ, A., 1996 – Genus *Cheilosia* Meigen and related genera (Diptera, Syrphidae) on the Balkan Peninsula. Pp. 200. *In: Matica srpska, Novi Sad*.
- VUJIĆ, A., S. RADENKOVIĆ, C. STĂNESCU, 1998 – New data of Hoverflies (Diptera Syrphidae) in Romania. *In: Volucella, Stuttgart*, 3 (1–2): 63–74.

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