

INVESTIGATION OF BUG FAUNA (HEMIPTERA: HETEROPTERA) BY LIGHT TRAPS IN REPUBLIC OF MOLDOVA

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Abstract. *On traps with ultra-violet light 211 species of bugs from 19 families are caught in five settlements in R. Moldova's territory. For each species, from all sites, the indexes of domination and frequency are given.*

Keywords: *Heteroptera, light traps, indexes of domination and frequency.*

Rezumat. *Studiul faunei heteropterelor (Hemiptera: Heteroptera) la capcana cu lumină în Republica Moldova. În cinci localități de pe teritoriul R. Moldova la capcana cu lumină ultravioletă au fost prinse 211 specii de heteroptere din 19 familii. Pentru fiecare specie din toate localitățile sunt citați indicii de dominanță și frecvența.*

Cuvinte cheie: *Heteroptera, capcana cu lumină, indicii de dominanță și frecvența.*

INTRODUCTION

Now the phenomenon of arrival of insects to a source of artificial light is widely used in entomology for realization of faunistic findings, for knowing the daily and seasonal activity, dynamics of number of twilight-night species. So, light traps are successfully applied in studying plant aphids (LABONNE et al., 1983), trichopterous (MANGEANT, 1995), noctuids (ALLAN, 1988), dragonflies (BORISOV, 1990), carabids (MATALIN, 1996), dipters (VAN ARK & NEISWINKEL, 1992) etc. Many papers with general character (MESZAROS et al., 1984), and special researches were devoted to bugs studies (BENEDEK & JASZAI, 1973; ÖNDER et al., 1984; GÖLLNER-SCHIEDING, 1989; SCHCHÖNEFELD, 1989; HEISS et al., 1991; DERZHANSKY, 1993).

MATERIAL AND METHODS

The catching of bugs was carried out in the warm period of the year: the end of April - the beginning of October, on a trap with a vertical ultra-violet light source EUV-15 (wave-length is 280-380 nm) in 5 settlements of Republic of Moldova:

1. Briceni (north of the country) - the trap was placed at the edge of an apple orchard garden. The surrounding environment of the trap was represented by a meadow, alfalfa field, vegetable cultures, and small (4-5 ha) ponds. The nearest woodland was at a distance of 4-5 km. The period of catching: 4th June-7th September.
2. Lozova (the central part of the country). The edge of the "Codrii" Forest Nature Reserve. On the opposite part of the Nature Reserve is a wet meadow overgrown with willow *Salix cinerea*, a small aquatic reservoir (up to 1 ha) with stagnant water, and an old apple garden with vegetation between the tree rows. The period of catching: 10th April-14th October.
3. Gratieshti (the central part of the country). Environmental biotops of the trap: pear and apple orchards, vegetable cultures (cabbage, carrots, tomatoes etc.), tobacco, wet meadow, two reservoirs with the common area of above 100 ha. The nearest woodland is located at the distance of 5-6 km. The period of catching: 12 May-19th September.
4. Giurgiuleshti (extreme southwest of the country, lower Prut). Dominant shape landscapes are the cultivated fields occupied with corn, wheat etc. cultures. The natural biotops are steppe surrounded by meadows and hydrophyllous vegetation on Prut river coast, and also sites of inundated wood. The period of catching: 30th April-2nd October.
5. Palanca (extreme southeast of the country, lower Nistru). The trap was located at 100 meters from the river coast. The characteristic landscape represents sites of inundated wood, gulfs, also thickets of cane. Environmental fields are occupied with vegetable crops. The period of catching: 5th May-30 September.

The number of the collected material was: Briceni-9,471, Lozova-6,239, Gratieshti-16,634, Giurgiuleshti-75,955 and Palanca-187,103 individuals.

For the analysis of the received data the indexes of dominance (the relation of number of individuals from a species to the total number of the bugs collected in a trap in the given site) and the frequency (P) - the relation of number of catches (days) of one species to the total days of trap functioning in the given point were used.

RESULTS AND DISCUSSIONS

As a result of the carried out researches 211 species of bugs from 19 families (Table 1), among them only 32 species (or 15.2 %) are common for all the sites.

Table 1. Indexes of dominance and frequency (P) of the heteropterous insects collected by light trap in the Republic of Moldova (in %).

Tabel 1. Indicii de dominanță și frecvență (P) insectelor heteroptere colectate la capcana cu lumină în Republica Moldova (în %).

Nr.	Species	Dominance in locality					P
		Briceni	Grățiești	Lozova	Giurgiulești	Palanca	
1	2	3	4	5	6	7	8
Family CORIXIDAE							
1	<i>Micronecta pusilla</i> (HORVATH 1895)	-	-	-	1.7	-	4.1
2	<i>Cymatia coleoprata</i> (FABRICIUS 1776)	0.01	-	-	0.004	0.002	1.8
3	<i>C. rogenhoferi</i> (FIEBER 1864)	-	-	0.1	0.1	0.1	14.9
4	<i>Callicorixa praeusta praeusta</i> (FIEBER 1848)	7.6	-	0.7	0.01	-	17.5
5	<i>Corixa punctata</i> (ILLIGER 1807)	-	-	0.02	-	-	2.0
6	<i>Hesperocorixa linnaei</i> (FIEBER 1848)	0.04	0.04	0.5	0.1	3.2	17.6
7	<i>Paracorixa concinna concinna</i> (FIEBER 1848)	3.4	0.1	3.4	1.5	1.0	39.7
8	<i>Sigara assimilis</i> (FIEBER 1848)	-	-	-	0.001	0.3	41.2
9	<i>S. falleni</i> (FIEBER 1848)	14.6	0.3	5.5	13.3	15.6	63.2
10	<i>S. lateralis</i> (LEACH 1817)	35.2	3.5	47.5	18.1	6.3	94.1
11	<i>S. stagnalis pontica</i> JACZEWSKI 1961	-	-	-	0.001	0.1	25.8
12	<i>S. limitata limitata</i> (FIEBER 1848)	-	-	0.1	-	-	11.8
13	<i>S. semistriata</i> (FIEBER 1848)	0.01	-	-	-	-	1.4
14	<i>S. striata</i> (LINNAEUS 1758)	4.4	0.5	3.1	24.7	34.8	61.2
Family NOTONECTIDAE							
1	<i>Notonecta viridis</i> DELCOURT 1909	-	0.01	0.02	-	-	2.4
Family MESOVELIIDAE							
1	<i>Mesovelgia furcata</i> Mulsant et Rey 1852	-	-	-	0.002	-	1.7
Family HEBRIDAE							
1	<i>Hebrus ruficeps</i> THOMSON 1871	-	-	-	0.001	-	1.7
Family GERRIDAE							
1	<i>Gerris argentatus</i> SCHUMMEL 1832	-	-	-	-	0.003	3.1
2	<i>G. lacustris</i> (LINNAEUS 1758)	-	-	-	0.002	0.004	0.8
3	<i>G. odontogaster</i> (ZETTERSTEDT 1828)	-	-	-	0.01	0.004	4.1
Family SALDIDAE							
1	<i>Chartoscirta cincta cincta</i> (HERRICH-SCHAEFFER 1842)	-	0.01	0.03	0.001	0.002	5.9
2	<i>Saldula arenicola arenicola</i> SCHOLTZ 1847	-	0.01	-	0.002	0.002	1.9
3	<i>S. opacula</i> (ZETTERSTEDT 1838)	0.1	0.2	0.6	0.2	0.6	16.5
4	<i>S. pallipes</i> (FABRICIUS 1794)	0.03	0.02	0.1	0.5	0.1	29.7
5	<i>S. pilosella pilosella</i> (THOMSON 1871)	0.1	0.3	0.3	1.0	1.4	38.0
6	<i>S. saltatoria</i> (LINNAEUS 1758)	-	-	-	-	0.06	14.4
Family TINGIDAE							
1	<i>Stephanitis pyri</i> (FABRICIUS 1775)	-	0.1	-	0.001	-	3.9
Family NABIDAE							
1	<i>Nabis sareptanus</i> DOHRN 1862	-	-	-	-	0.01	8.2
2	<i>N. ferus</i> (LINNAEUS 1758)	0.4	1.6	0.04	1.6	7.1	47.0
3	<i>N. pseudoferus pseudoferus</i> REMANE 1949	-	0.04	-	0.01	0.01	1.9
3	<i>N. punctatus punctatus</i> A. COSTA 1847	1.0	2.4	0.1	0.2	1.5	31.4
Family REDUVIIDAE							
1	<i>Reduvius personatus</i> (LINNAEUS 1758)	0.1	0.02	0.02	0.01	0.002	5.3
Family ANTHOCORIDAE							
1	<i>Anthocoris confusus</i> REUTER 1884	-	0.04	-	-	-	5.9
2	<i>A. pilosus</i> (JAKOVLEV 1877)	-	0.01	-	-	-	1.9
3	<i>Temnostethus gracilis</i> HORVATH 1907	-	0.01	-	-	-	5.9
4	<i>Orius horvathi</i> (REUTER 1884)	-	-	0.02	-	-	5.9
5	<i>O. majusculus</i> (REUTER 1879)	-	0.1	0.1	0.01	0.004	43.1
6	<i>O. minutus</i> (LINNAEUS 1758)	-	0.1	0.04	-	-	11.8
7	<i>O. niger</i> (WOLFF 1804)	-	0.1	0.02	0.002	-	15.7
8	<i>Lyctocoris campestris</i> (FABRICIUS 1794)	0.01	0.1	0.02	-	0.001	11.8
9	<i>Xylocoris galactinus</i> (FIEBER 1836)	-	0.01	-	-	-	1.9
10	<i>X. cursitans</i> (FALLEN 1807)	0.03	2.0	1.0	0.8	0.001	68.6
Family MIRIDAE							
1	<i>Dicyphus errans</i> (WOLFF 1804)	-	0.01	-	-	-	1.9
2	<i>Macrolophus pygmaeus</i> (RAMBUR 1839)	-	0.04	-	-	-	7.8
3	<i>Bothynotus pilosus</i> (BOHEMAN 1852)	-	-	0.03	0.001	-	5.9
4	<i>Deraeocoris punctulatus</i> (FALLEN 1807)	-	-	-	0.001	-	0.8
5	<i>D. serenus</i> (DOUGLAS & SCOTT 1868)	-	0.3	0.02	0.3	0.04	33.3
6	<i>D. annulipes</i> (HERRICH-SCHAEFFER 1842)	0.01	-	-	-	-	1.7
1	2	3	4	5	6	7	8
7	<i>D. trifasciatus</i> (LINNAEUS 1767)	1.0	0.1	0.1	0.01	0.005	28.1
8	<i>D. lutescens</i> (SCHILLING 1837)	0.01	0.04	-	0.001	-	5.9
9	<i>Adelphocoris lineolatus</i> (GOEZE 1778)	5.0	1.0	7.2	3.8	0.4	90.1

10	<i>A. quadripunctatus</i> (FABRICIUS 1794)	0.03	-	0.2	-	-	11.8
11	<i>A. seticornis</i> (FABRICIUS 1775)	1.9	0.2	6.7	0.6	0.04	50.0
12	<i>A. ticinensis</i> (MEYER-DÜR 1843)	0.01	-	0.03	0.004	0.004	2.5
13	<i>A. vandalius</i> (ROSSI 1790)	-	-	-	0.001	-	0.8
14	<i>Agnocoris reclairei</i> WAGNER 1949	0.02	-	0.1	0.05	0.3	35.3
15	<i>A. rubicundus</i> (FALLEN 1807)	0.02	0.02	0.02	0.002	0.001	3.5
16	<i>Apolygus lucorum</i> (MEYER-DÜR 1843)	0.2	0.01	1.3	0.002	0.01	29.4
17	<i>A. spinolae</i> (MEYER-DÜR 1841)	-	-	0.1	-	-	1.9
18	<i>Brachycoleus decolor</i> REUTER 1887	0.04	-	1.2	0.001	0.001	14.8
19	<i>Calocoris affinis</i> (HERRICH-SCHAEFFER 1835)	0.01	-	0.04	-	-	1.0
20	<i>Charagochilus gyllenhalii</i> (FALLEN 1807)	0.01	0.1	0.04	0.1	0.002	15.7
21	<i>Closterotomus biclavatus biclavatus</i> (HERRICH-SCHAEFFER 1835)	-	-	0.2	-	-	1.9
22	<i>C. fulvomaculatus</i> (DE GEER 1773)	-	-	0.03	-	-	1.9
23	<i>Liocoris tripustulatus</i> (FABRICIUS 1781)	-	-	0.1	-	-	5.9
24	<i>Lygocoris pabulinus</i> (LUNNAEUS 1761)	-	-	-	-	0.001	1.0
25	<i>L. viridis</i> (FALLEN 1807)	-	-	0.05	-	-	1.9
26	<i>Lygus gemellatus gemellatus</i> (HERRICH-SCHAEFFER 1836)	0.3	0.4	0.4	1.5	0.2	61.2
27	<i>L. pratensis</i> (LINNAEUS 1758)	2.6	0.3	1.7	0.03	0.01	35.3
28	<i>L. rugulipennis</i> POPPIUS 1912	7.2	19.4	3.9	19.6	12.9	82.6
29	<i>Mermilocerus schmidtii</i> (FIEBER 1836)	-	-	0.02	-	-	0.9
30	<i>Orthops basalis</i> (A. COSTA 1852)	0.01	0.1	0.4	0.03	-	23.5
31	<i>O. campestris</i> (LINNAEUS 1758)	0.03	0.3	0.7	0.1	0.07	35.3
32	<i>O. kalmii</i> (LINNAEUS 1758)	2.2	0.2	1.6	0.3	0.2	27.5
33	<i>Phytocoris insignis</i> REUTER 1876	0.02	0.03	0.1	0.04	-	9.1
34	<i>Ph. nowickii</i> FIEBER 1870	-	-	0.05	0.002	-	5.9
35	<i>Ph. ulmi</i> (LINNAEUS 1758)	0.01	-	0.1	0.002	-	5.9
36	<i>Ph. varipes</i> BOHEMAN 1853	0.1	-	0.03	-	-	1.9
37	<i>Ph. dimidiatus</i> KIRSCHBAUM 1856	0.02	-	0.1	-	-	5.9
38	<i>Ph. longipennis</i> FLOR 1861	0.02	-	0.02	-	-	1.4
39	<i>Ph. populi</i> (LINNAEUS 1758)	-	0.03	-	-	-	5.9
40	<i>Ph. tiliae tiliae</i> (FABRICIUS 1777)	0.02	0.01	0.1	-	-	11.8
41	<i>Polymerus asperulae</i> (FIEBER 1861)	-	-	0.02	-	-	0.9
42	<i>P. brevicornis</i> (REUTER 1879)	-	0.02	-	0.01	0.001	5.9
43	<i>P. cognatus</i> (FIEBER 1858)	0.1	0.6	-	1.4	7.3	37.2
44	<i>P. unifasciatus</i> (FABRICIUS 1794)	0.04	0.1	0.2	0.01	0.005	17.6
45	<i>P. vulneratus</i> (PANZER 1806)	0.3	0.1	0.05	-	-	63.6
46	<i>P. holosericeus</i> HAHN 1831	-	-	0.02	-	-	0.9
47	<i>Rhabdomiris striatellus striatellus</i> (FABRICIUS 1794)	-	0.02	0.1	-	-	11.8
48	<i>Stenotus binotatus</i> (FABRICIUS 1794)	0.1	-	0.05	0.005	-	2.5
49	<i>Leptopterna albescens</i> (REUTER 1891)	-	-	0.03	-	-	0.9
50	<i>Stenodema calcarata</i> (FALLEN 1807)	0.1	0.01	0.1	0.004	0.7	49.5
51	<i>Teratocoris antennatus</i> (BOHEMAN 1852)	-	0.1	-	-	0.01	11.8
52	<i>Trigonotylus caelestialium</i> (KIRKALDY 1902)	6.3	39.1	3.4	3.5	3.4	92.1
53	<i>T. ruficornis</i> (GEOFFROY 1785)	-	-	-	0.1	-	2.5
54	<i>Orthocephalus saltator</i> (HAHN 1835)	0.04	0.02	0.05	-	0.001	3.9
55	<i>O. vittipennis</i> (HERRICH-SCHAEFFER 1836)	0.02	-	0.5	-	-	3.7
56	<i>Blepharidopterus angulatus</i> (FALLEN 1807)	-	0.01	-	0.001	-	5.9
57	<i>B. diaphanus</i> (KIRSCHBAUM 1856)	-	0.2	-	-	-	19.6
58	<i>Brachynotocoris puncticornis</i> REUTER 1880	-	0.03	-	0.001	0.01	5.9
59	<i>Cylloceria hystrix</i> (LINNAEUS 1767)	-	0.01	0.02	-	-	11.8
60	<i>Dryophilocoris flavoquadrimaculatus</i> (DE GEER 1773)	-	-	0.2	-	-	5.6
61	<i>Globiceps flavomaculatus</i> (FABRICIUS 1794)	-	-	0.05	-	-	11.8
62	<i>G. fulvicollis</i> JAKOVLEV 1877	0.02	-	0.02	-	-	2.9
63	<i>Malacocoris chlorizans</i> (PANZER 1794)	-	0.01	-	-	-	1.9
64	<i>Orthotylus flavosparsus</i> (C. SAHLBERG 1842)	0.5	9.3	0.7	1.5	0.2	94.1
65	<i>O. minutus</i> JAKOVLEV 1877	-	0.2	0.1	0.4	0.004	23.5
66	<i>O. moncreaffi</i> (DOUGLAS & SCOTT 1874)	-	0.1	-	0.001	-	5.9
67	<i>O. rubidus</i> (PUTON 1877)	-	0.01	-	0.01	0.001	2.0
68	<i>O. schobertiae</i> REUTER 1876	-	-	-	0.001	-	0.8
69	<i>O. flavinervis</i> (KIRSCHBAUM 1856)	0.01	-	-	-	-	1.8
70	<i>O. marginalis</i> REUTER 1883	0.1	-	0.3	-	0.001	8.8
71	<i>O. nassatus</i> (FABRICIUS 1787)	0.01	0.1	-	0.04	0.001	7.8
72	<i>O. tenellus</i> FALLEN 1807	0.02	-	0.02	-	-	3.5
73	<i>O. virens</i> (FALLEN 1807)	0.01	-	-	-	-	1.8
74	<i>O. bilineatus</i> FALLEN 1807	0.01	-	-	0.001	-	1.8
75	<i>Pseudoloxops coccineus</i> (MEYER-DÜR 1843)	-	-	-	0.001	-	0.8
76	<i>Reuteria marqueti</i> PUTON 1875	-	0.03	-	-	-	5.9
77	<i>Pilophorus perplexus</i> DOUGLAS & SCOTT 1875	-	0.03	-	0.002	-	3.9
78	<i>Hallodapus montandoni</i> REUTER 1895	-	0.02	-	-	-	3.9

1	2	3	4	5	6	7	8
79	<i>H. rufescens</i> (BURMEISTER 1835)	-	-	0.1	-	-	5.9
80	<i>Acrotelus caspicus</i> (REUTER 1879)	-	-	-	0.001	-	0.8
81	<i>Atomoscelis onusta</i> (FIEBER 1861)	-	9.1	-	0.4	0.002	56.8
82	<i>Brachyarthrum limitatum</i> FIEBER 1858	-	0.01	0.03	-	-	5.9
83	<i>Campylomma annulicorne</i> (SIGNORET 1865)	-	-	-	0.1	0.006	9.9
84	<i>C. verbasci</i> (MEYER-DÜR 1843)	-	0.6	0.02	0.3	0.001	39.2
85	<i>Chlamydatius pullus</i> (REUTER 1870)	-	0.1	-	-	-	5.9
86	<i>Compsidolon absinthii</i> (SCOTT 1870)	-	-	-	-	0.001	1.0
87	<i>C. salicellum</i> (HERRICH-SCHAEFFER 1841)	-	-	0.02	-	-	0.9
88	<i>Europiella alpina</i> (REUTER 1875)	0.2	-	1.7	-	-	23.5
89	<i>E. artemisiae</i> (BECKER 1864)	0.3	0.1	0.03	0.02	-	25.5
90	<i>Harpocera thoracica</i> (FALLEN 1807)	0.02	-	0.1	-	-	1.4
91	<i>Icodema infusata</i> (FIEBER 1861)	-	0.04	-	-	-	17.6
92	<i>Lopus decolor decolor</i> (FALLEN 1807)	-	0.01	-	-	-	1.8
93	<i>Macrotylus horvathi</i> (REUTER 1876)	0.1	0.6	0.1	0.2	0.04	23.5
94	<i>M. solitarius</i> (MEYER-DÜR 1843)	-	-	0.05	-	-	1.9
95	<i>M. herrichi</i> (REUTER 1873)	-	-	0.03	-	-	1.9
96	<i>Megalocoleus confusus</i> WAGNER 1958	0.2	-	0.05	0.003	0.01	10.5
97	<i>M. hungaricus</i> WAGNER 1944	0.1	0.04	0.1	0.004	0.001	9.3
98	<i>M. tanaceti</i> (FALLEN 1807)	0.04	0.01	0.1	-	0.001	3.5
99	<i>Oncotylus setulosus</i> (HERRICH-SCHAEFFER 1837)	0.02	0.03	0.05	0.04	0.001	5.9
100	<i>O. viridiflavus viridiflavus</i> (GOEZE 1778)	-	0.01	0.03	0.01	0.001	5.9
101	<i>Phylus melanocephalus</i> (LINNAEUS 1767)	0.02	0.04	0.1	0.002	-	11.8
102	<i>Placochilus seladonicus seladonicus</i> (FALLEN 1807)	-	-	0.02	-	-	0.9
103	<i>Plagiognathus arbustorum arbustorum</i> (FABRICIUS 1794)	-	-	0.02	-	-	0.9
104	<i>P. bipunctatus</i> REUTER 1883	-	0.1	0.02	0.01	-	13.7
105	<i>P. chrysanthemi</i> (WOLFF 1804)	0.03	-	-	0.001	-	2.8
106	<i>P. fulvipennis</i> (KIRSCHBAUM 1856)	0.01	-	0.05	-	-	1.9
107	<i>Psallus perrisi</i> (MOULSANT & REY 1852)	0.02	0.03	0.02	0.003	-	17.6
108	<i>P. variabilis</i> (FALLEN 1807)	0.03	-	-	-	-	5.3
109	<i>P. quercus</i> (KIRSCHBAUM 1856)	-	0.02	-	-	-	5.9
110	<i>P. confusus</i> RIEGER 1981	0.01	0.2	0.02	-	-	23.5
111	<i>P. flavellus</i> STICHEL 1933	-	-	0.02	-	-	0.9
112	<i>P. haematodes</i> (GMELIN 1790)	-	-	0.02	-	-	0.9
113	<i>P. lepidus</i> FIEBER 1858	0.01	0.01	-	-	-	5.9
114	<i>Salicarus roseri</i> (HERRICH-SCHAEFFER 1838)	-	-	-	0.02	0.03	10.3
115	<i>Sthenarus rotermundi</i> (SCHOLTZ 1847)	-	-	0.02	0.002	-	0.9
116	<i>Tuponia prasina</i> (FIEBER 1864)	-	0.1	-	0.01	-	11.7
117	<i>T. elegans</i> (JAKOVLEV 1867)	-	0.01	-	0.02	-	5.0
Family LYGAEIDAE							
1	<i>Lygaeus simulans</i> DECKERT 1985	-	-	-	0.002	-	1.6
2	<i>Tropidothorax leucopterus</i> (GOEZE 1778)	-	-	-	0.01	-	3.2
3	<i>Nysius senecionis senecionis</i> (SCHILLING 1829)	-	0.1	-	0.04	0.005	11.8
4	<i>Kleidocerys resedae resedae</i> (PANZER 1797)	0.1	-	-	-	0.003	9.9
5	<i>Henestaris halophilus</i> (BURMEISTER 1835)	-	-	-	-	0.001	1.0
6	<i>Geocoris arenarius</i> (JAKOVLEV 1867)	-	-	-	0.001	-	0.8
7	<i>Chilacis typhae</i> (PERRIS 1857)	0.1	0.9	0.1	0.1	0.7	23.7
8	<i>Holcocranum saturejae</i> (KOLENATI 1845)	-	0.05	-	0.001	-	3.9
9	<i>Heterogaster artemisiae</i> SCHILLING 1829	-	-	-	0.001	-	0.8
10	<i>H. urticae</i> (FABRICIUS 1775)	-	-	-	0.002	-	0.8
11	<i>Platyplax salviae</i> (SCHILLING) 1829	-	-	-	0.01	-	4.1
12	<i>Metopoplax origani</i> (KOLENATI 1845)	-	-	-	0.002	-	0.8
13	<i>Drymus ryeii</i> DOUGLAS & SCOTT 1865	-	-	0.02	-	-	0.9
14	<i>Scolopostethus affinis</i> (SCHILLING 1829)	-	-	-	0.003	-	2.4
15	<i>S. decoratus</i> (HAHN 1833)	-	-	-	0.001	-	0.8
16	<i>S. thomsoni</i> REUTER 1875	0.02	-	0.02	0.01	-	2.4
17	<i>Emblethis denticollis</i> HORVATH 1878	0.4	0.1	-	0.8	0.1	30.6
18	<i>E. griseus</i> (WOLFF 1802)	-	-	-	0.003	-	0.8
19	<i>Lamprodema maura</i> (FABRICIUS 1803)	-	0.04	-	0.01	0.001	7.8
20	<i>Megalonotus chiragra</i> (FABRICIUS 1794)	0.03	-	-	0.01	-	2.4
21	<i>Sphragisticus nebulosus</i> (FALLEN 1807)	1.8	3.2	0.03	0.1	0.001	35.3
22	<i>Pachybrachius fracticollis</i> (SCHILLING 1829)	-	-	-	0.06	0.04	14.4
23	<i>Beosus maritimus</i> (SCOPOLI 1763)	-	-	0.02	0.01	0.001	3.3
24	<i>B. quadripunctatus</i> (MÜLLER 1766)	-	-	-	0.001	-	0.8
25	<i>Peritrechus geniculatus</i> (HAHN 1832)	-	-	-	0.01	0.2	21.2
26	<i>P. gracilicornis</i> PUTON 1877	0.8	0.1	0.02	0.1	-	14.0
27	<i>P. nubilus</i> (FALLEN 1807)	-	-	-	0.1	0.8	22.3
28	<i>Rhyparochromus vulgaris</i> (SCHILLING 1829)	-	-	0.1	-	0.002	1.9

1	2	3	4	5	6	7	8
Family PYRRHOCORIDAE							
1	<i>Pyrhcoris apterus</i> (LINNAEUS 1758)	-	-	-	0.01	-	2.5
Family STENOCEPHALIDAE							
1	<i>Dicranocephalus agilis</i> (SCOPOLI 1763)	-	-	-	0.001	0.001	0.8
2	<i>D. albipes</i> (FABRICIUS 1781)	0.01	-	-	-	-	1.8
Family RHOPALIDAE							
1	<i>Brachycarenum tigrinus</i> (SCHILLING 1829)	-	0.01	-	0.1	0.002	4.1
2	<i>Corizus hyoscyami hyoscyami</i> (LINNAEUS 1758)	0.01	-	-	0.005	-	2.5
3	<i>Liorhyssus hyalinus</i> (FABRICIUS 1794)	-	-	-	0.005	-	2.5
4	<i>Rhopalus conspersus</i> (FIEBER 1837)	-	-	-	-	0.001	1.0
5	<i>Rh. parumpunctatus</i> SCHILLING 1829	-	-	0.02	-	-	0.9
6	<i>Rh. subrufus</i> (GMELIN 1790)	-	-	0.02	-	-	0.9
Family COREIDAE							
1	<i>Centrocoris spiniger</i> (FABRICIUS 1781)	-	-	-	0.001	-	0.8
2	<i>Coreus marginatus marginatus</i> (LINNAEUS 1758)	-	-	0.02	-	-	0.9
Family ACANTHOSOMATIDAE							
1	<i>Acanthosoma haemorrhoidale haemorrhoidale</i> (LINNAEUS 1758)	-	-	0.1	-	-	1.9
2	<i>Elasmostethus interstinctus</i> (LINNAEUS 1758)	0.01	-	-	-	-	1.8
Family SCUTELLERIDAE							
1	<i>Eurygaster testudinaria testudinaria</i> (GEOFFROY 1785)	0.01	-	0.03	-	-	1.0
Family PENTATOMIDAE							
1	<i>Carpocoris purpureipennis</i> (DE GEER 1773)	-	-	0.02	-	-	0.9
2	<i>Dolycoris baccarum</i> (LINNAEUS 1758)	0.01	-	0.1	0.01	-	3.7
3	<i>Holcostethus strictus vernalis</i> (WOLFF 1804)	-	-	0.02	-	-	0.9
4	<i>Palomena prasina</i> (LINNAEUS 1761)	-	-	-	0.001	-	0.8
5	<i>Eysarcoris ventralis</i> (WESTWOOD 1837)	-	-	-	-	0.001	1.0
6	<i>Pentatoma rufipes</i> (LINNAEUS 1758)	0.02	-	0.2	-	-	23.5
7	<i>Rhaphigaster nebulosa</i> (PODA 1761)	-	-	-	-	0.003	2.1
8	<i>Eurydema oleracea</i> (LINNAEUS 1758)	-	0.01	-	0.002	0.001	2.4
9	<i>E. ornata</i> (LINNAEUS 1758)	-	-	-	0.002	-	0.8
10	<i>Graphosoma lineatum</i> (LINNAEUS 1758)	0.03	-	-	-	-	4.2

The positive phototropism especially strongly expressed in the south, quite often enables us to find out species even at their rather low density. So, more than half of bugs (115 species) were caught in quantity less than 10 individuals (dominance index equally to 0.001-0.1 %), from them, 44 species were caught in a single individual. At the same time, 23 species are the most abundant (frequency equally to 35.3-94.1 %), their number makes 96.0 % from the general quantity of all caught individuals.

As a result of the study of fauna, it is necessary to note, that for 4 years running of work in Moldova there were recorded 31 species of bugs unknown earlier for local fauna, many of them there were not registered by other methods of catching.

Among heteroptera attracted by light, the phenomenon of wings polymorphism is marked only in several species (*Mesovelia furcata*, *Hallodapus montandoni*, *Scolopostethus thomsoni*, *S. decoratus* and *Pyrhcoris apterus*). The domination of macropterous females among the caught individuals confirms indirectly the migratory value of flight in these species.

REFERENCES

- ALLAN D. 1988. *Analysis of light-trapping data*. N. Z. Entomol. **11**: 86 pp.
- BENEDEK P. & JASZAI V. 1973. *On the migration of Corixidae (Heteroptera) based on light trap data*. Acta Zool. Acad. Sci. Hung. **19**(1/2): 1-9.
- BORISOV S. N. 1990. *On the flight of dragons-fly (Odonata) towards artificial springs of light*. Zool. Zhurn. **69**(2): 29-35. (In Russian).
- DERZHANSKY V. V. 1993. *The flight of bugs towards light trap in Moldavia*. In: Advances in Entomology in the USSR: Ecology and faunistics, smaller orders of insects (Proc. of the 10th Congr. of the All-Union Entomol. Society) St. Petersburg: 119-120. (In Russian).
- HEISS E., GÜNTHER H., RIEGER CH. & ALL 1991. *Artenspektrum und Phänologie von Heteropteren aus Lichtfallenausbeuten von Kreta*. - Ber. naturwiss. Med. Ver. Innsbruck. **78**: 119-143.
- GÖLLNER-SCHIEDING U. 1989. *Ergebnisse von Lichtfängen in Berlin aus den Jahren 1981-1986. 1. Heteroptera. Teil I. Landwanzen (Cimicomorpha und Pentatomomorpha) (Insecta)*. Faun. Abh. /Staatl. Mus. Tierk. Dresden **16**, 2: 111-123.

- LABONNE G., FAUVEL G., LECLANT F., QUIOT J. B. 1983. *Interet des pieges a fils dans l'etude des populations de pucerons ailes*. Agronomie **3**(4): 315-325.
- MANGEANT A. 1995. *Tiempo optimo de captura de trichoptera adultos (Insecta), utilizando trampas de luz*. Rev. Asoc. scienc. natur. Litoral. **26**(2): 61-63.
- MATALIN A. V. 1996. *On using of light traps in ecological investigations of carabids (Coleoptera, Carabidae)*. Zool. Zhurn. **75**(5): 744-756. (In Russian).
- MESZAROS Z., ADAM L., BALAZS K. & all. 1984. *Results of faunistical and floristical studies in Hungarian apple orchards*. Acta Phytopat. Ac. Sc. Hung. **19**(1-2): 91-176.
- ÖNDER F., ÜNAL E., ÜNAL A. 1984. *Heteropterous insects collected by light traps in Edirne (Turkey)*. Türk. bitki koruma derg. **8**(4): 215-224.
- SCHCHÖNEFELD P. 1989. *Ergebnisse von Lichtfängen in Berlin aus den Jahren 1981-1986. 1. Heteroptera. Teil II. Wasserwanzen (Nepomorpha und Gerromorpha) (Insecta)*. Faun. Abh./Staatl. Mus. Tierk. Dresden. **16**(2): 125-133.
- VAN ARK H., NEISWINKEL R. 1992. *Subsampling of light trap catches of Culicoides (Diptera: Ceratopogonidae)*. Onderstepoort J. Vet. Res. **59**(3): 183-189.

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