



ACADEMY OF SCIENCES OF MOLDOVA
SECTION OF NATURAL AND EXACT SCIENCES
INSTITUTE OF ZOOLOGY



VIII-th International Conference of Zoologists

**ACTUAL PROBLEMS OF PROTECTION
AND SUSTAINABLE USE OF THE
ANIMAL WORLD DIVERSITY**



10-12 OCTOBER 2013

Book of Abstract



Chisinau – 2013





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The materials of VIII-th International Conference of Zoologists „**Actual problems of protection and sustainable use of animal world diversity**” organized by the Institute of Zoology of the Academy of Sciences of Moldova are a generalization of the latest scientific researches in the country and abroad concerning the diversity of aquatic and terrestrial animal communities, molecular-genetic methods in systematics, phylogeny, phylogeography and ecology of animals, taxonomy and evolution of animals, structure and dynamics of animal populations from natural and anthropized ecosystems, population functioning and animal role in ecological equilibrium maintenance, monitoring, evaluation of threats, and assessment of risks of aquatic ecosystems, biological control in regulation of pests number, invasive animal species, their ecological and socio-economic impact, protection of rare, endangered and vulnerable animal species under conditions of anthropogenic pressing intensification

The proceedings are destined for zoologists, ecologists, ethologists and for professionals in the field of protection and sustainable use of natural patrimony.

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sible. Thus questions of economical, fine dispersed and pervasive applying of preparations into the infected zones of plants are very important. For full liquidation of the pest it is necessary to use total destructive actions especially after cold winters significantly decreased pest population.

**DATA REGARDING THE TROPHIC SPECTRUM OF THE
POPULATIONS OF *ADALIA BIPUNCTATA* AND *COCCINELLA
SEPTEMPUNCTATA* IN THE REPUBLIC OF MOLDOVA**

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Adalia bipunctata and *Coccinella septempunctata* are predatory beetles which are best known for feeding on aphids. They are specialist at exploiting the rapid growth of aphid colonies, arriving when the colony is large and plenty of food is available and moving on to the next colony as the food supply diminishes. The adults and larvae of these species are predatory and eat many types of small insects, not only aphids. If food is not available, they are strongly cannibalistic: adult beetles will eat eggs, and larvae will eat eggs and other larvae. So, for biological protection these species present a huge importance, therefore we had studied their trophic spectre in the Republic of Moldova.

Eight cultures from different localities of country were studied (7 – from North and by 5 from Centre and South) in the second decade of June and in the first decade of July. In these points 198 specimens of ladybirds were collected by hand, of which 65 belong to *Adalia bipunctata* and 133 specimens to *Coccinella septempunctata* species. In the North of our country were collected 43 specimens (33 of *A. bipunctata* and 10 of *C. septempunctata*), in the centre – 50 specimens (by 25 of each species) and finally, in the south of the Republic of Moldova were collected 105 specimens (98 of *C. septempunctata* and just 7 of *A. bipunctata*). Most specimens – 48 were collected in plums orchards (*Prunus domestica*) where they devour *Hyalopterus pruni* aphids and most interesting fact is that the *Coccinella septempunctata* were prevalent (47 specimens). Also, 47 specimens were collected in feeding aphids of sunflower crop, and all specimens belong to the seven-spotted lady beetle. The fewest ladybugs were collected on cherry trees where they devour aphids of *Brachycaudus helichrzi* species.

The general conclusion is that the dominant species is *C. septempunctata* which consume *Aphis malus* aphids from *Malus domestica*; *Hyalopterus pruni* and *Myzus cersai* aphids from *Prunus domestica* and *P. cerasifera*, also, aphids from sunflower and oak trees (*Quercus pubescens*). The *A. bipunctata* prevailed on colonies of aphids of *Chromaphis juglandicola* species from *Juglans regia*; *Brachycaudus helichrzi* from the *Cerasus avium* and aphids from *Zea mays* and wild plants.

The work was performed within the Project funded by NEF: 2/3056-4373 from 05.02.2013

Primary research of species *Adalia bipunctata* and *Coccinella septempunctata* in different cultures of the Republic of Moldova, 2013

Locality	Date	Walnut tree		Apple tree		Plum tree		Corn		Cherry tree		Oak tree		Sun-flower		Wild plant	
		Ab	Cs	Ab	Cs	Ab	Cs	Ab	Cs	Ab	Cs	Ab	Cs	Ab	Cs	Ab	Cs
North																	
Edineț (Brânzeni)	16.06	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	–
Naslavcea (Oc-nita)	16.06	–	–	–	–	–	–	–	–	–	–	–	–	–	5	15	–
Parcova	16.06	1	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Viișoara	16.06	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Râșcani (Mihailovsco)	16.06	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bălți (Izvorăș)	16.06	7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Fălești (Glinjeni)	16.06	2	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL		13	5	5	0	0	0	0	0	0	0	0	0	0	5	15	0
Centre																	
Chișinău	03.07	8	1	–	–	1	2	–	–	–	–	–	–	–	17	–	–
Criuleni (Onițcani)	04.06	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Telenești (Bogzești)	19.06	3	–	–	1	–	–	7	–	–	–	–	–	–	–	–	1
Telenești (Cu-coaia)	19.06	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
Călărăși (Meleșeni)	19.06	–	–	1	2	–	–	–	–	1	–	–	–	–	–	–	–
TOTAL		15	1	1	4	1	2	7	0	1	0	0	0	0	17	0	1
South																	
Bugeac	22.06	–	–	–	–	–	–	–	3	–	–	–	–	–	20	4	–
Cimișlia	22.06	2	1	–	–	–	–	31	–	–	–	–	–	–	–	–	–
Cucoara, Cahul	23.06	–	1	–	–	–	–	–	–	–	–	–	–	–	5	–	–
Pelinei, Cahul	23.06	–	–	–	–	–	–	12	–	–	1	–	–	7	–	–	7
Vinogradovca, Taraclia	23.06	–	–	–	3	–	–	2	–	–	–	–	–	–	–	–	6
TOTAL		2	2	0	3	–	45	0	3	1	0	0	7	0	25	4	13
TOTAL		30	8	6	7	1	47	7	3	2	0	0	7	0	47	19	14

Legend: *Ab* – *Adalia bipunctata*; *Cs* – *Coccinella septempunctata*

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