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NATURAL REGULATORS OF THE CICADAD *Schaphoideus titanicus* (CICADELLIDAE) IN VINES

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Introduction. Currently, against the backdrop of climate change in the fauna of the Republic of Moldova, in recent decades, new species of cicadas have appeared on vines, including *Schaphoideus titanicus*. Having initially penetrated the country's area, it demonstrated quite high growth rates on vines. Its biology in the country's conditions has not been studied. However, there is a phenological calendar of development in the conditions of Japan. The unjustified use of chemical preparations has generated an increase in the species' resistance to some phytosanitary products. In the fight against it, a biological control program is being developed, which includes the introduction of the most promising species or breeds of natural enemies, the multiplication and subsequent colonization of potential-effective parasites, especially with egg parasites. In general, it is known that some representatives of the Mymaridae family, for example, females of *Anagrus delicates* migrate over long distances like their host. In the country's fauna, 24 species from 8 genera are known, 22 of them are stored in the entomological-practical collection of the Entomology and Biocenology laboratory of the IGFPP of the USM, with the exception of the species *Anaphes diana* noted by some authors as a parasite of the pea leaf weevil.

Materials and methods. Yellow adhesive traps with sizes of 25x30cm and 12.5x14.5 cm were installed in young (19th year of fruiting) and old (45th year of fruiting) plantations of grapevines with table and technical varieties. The area subjected to analysis was 0.8 hectares of young and old vines. The adhesive traps were changed once a month. The analysis of the traps was carried out under the SLX-3 "Optika" trinocular. The specimens well fixed in the adhesive plate were scanned with the C-P6 digital camera. The diagnosis was made according to the classical and contemporary diagnostic keys.

Summarized results. According to the phenological development calendar, the cicada *Scaphoideus titanus* overwinters in the egg phase on second-year shoots at the base of vegetative buds. Their hatching takes place in April, the first generation spawning occurs in September. The larvae of the first and second instar can be ob-

served from May, and those of the third, fourth and fifth instar in June, the adults appear in July-August, mating takes place at the end of August-beginning of September and spawning begins in September. We note that until the second half of July, adults cannot be observed in the yellow sticky traps, but only the larvae.

Our investigations carried out in May-June coincided with the phenological calendar of *S. titanus*, when the spawning and development of the second and third instar larvae take place. The first adults of *S. titanus* were found at the beginning of the first decade of July. During July-August the pest had an average number of 14.4 individuals per repetition in the old plantation of the Codreanca variety and an average of 12.4 individuals in the young plantation with different table and technical varieties.

The parasite complex was represented by the oophage species *Anagrus atomus*, *A. epos* (Mymaridae), which was observed in May, June and less in July. Among the predators, *Chrysis inaequidens* (Chrysididae), the bedbug *Malacocoris chlorizans*, species of spiders from the Salticidae family and the mite *Anystis agilis* (Anystidae) were found.

Conclusions. It was found that the regulatory complex consisting of 2 oophage species and more than 4 predator species were able to control the population of the invasive species *S. titanus*.

Keywords: Mymaridae, eggs, larvae, yellow traps, adults, grape vine, predatory.

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