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CONSTRAINTS OF USING A PREDACIOUS CHECKERED BEETLE (*OPILO DOMESTICUS*, CLERIDAE) IN BIOLOGICAL CONTROL OF URBAN PESTS

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Abstract *Opilo domesticus*, a checkered beetle of the Cleridae family, is a very beneficial insect as natural enemy of dangerous pests of wood and some stored products. Both the adults and larvae are predatory. In wooden buildings they prey on old house borer (*Hylotrupes bajulus*) and larvae of the common furniture beetle (*Anobium punctatum*). They also prey on drugstore beetle (*Stegobium paniceum*) which is a common pest of stored products. They hunt the prey by entering the spaces of wood pests, or they attack them being under the bark of trees. There are many ideas in using checkered beetle in biological control of 'wood borers' and drugstore beetles. Unfortunately, there are many obstacles for *Opilo domesticus* to be used in biological pest control. In many countries it is found dispersed, so obtaining scattered specimens for research and breeding is quite arduous. Biology and ecological requirements of this useful predator are not well understood, hence it is quite difficult to breed in the laboratory, especially on 'industrial' scale. Till now, mass development required for the release in pest-infested buildings was not achieved. *Opilo domesticus* can be considered a pest, as it bores wood in pursuit of prey, causing further damage to wooden products. Checkered beetle larvae are predatory and actively search for prey when they leave their hiding places located, for example, in wooden pallets. Then, they are found in various premises, rooms and equipment of a food plants and can contaminate various food products. They have been found in powdered milk, on moldy cheese, and in a bottle of fruit juice. The larvae of this clerid beetle contaminate often food products stored in rooms where wooden components are occupied by wood pests. However, the potential value of the biological control method of some urban pests using the clerid beetles has been clearly demonstrated, but technologically it is still rudimentary. Further developments require the intensive studies on bionomics of clerid beetles (*O. domesticus* and/or *Corynetes coeruleus*). We plan to perform intensive program in order to remove some constraints above mentioned. The most important task will be to elaborate the methods of mass culture of *O. domesticus*.

Key words clerid beetle, wood borers, drugstore beetle