



Conference Abstract

Some seed properties affecting seed choice by *Poecilus cupreus*

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Abstract

Seed predators are an integral part of agrocoenoses where they contribute to the reduction of weed populations. Although they are taking part in biological control of weed seeds, we still do not understand which properties of seeds are responsible for variable attractiveness of different species of seeds to carabids beetles. Seed coat provides a physical barrier and hinders volatiles to be released from the seeds when these are dry. In this work, we focused on seed preferences of *Taraxacum officinale* and *Stellaria media* by a ground beetle (Coleoptera: Carabidae) species, *Poecilus cupreus*, which is known as an omnivorous species. The seeds were used in three different states - dry, imbibed and with crushed seed coat, and from two different origins. The seeds were presented simultaneously in an experimental arena. Seed consumption was assessed after 30 minutes, 24 hours and 48 hours of exposure. There was no statistically significant difference between seeds with different origin. The most preferred seeds were *T. officinale* with damaged seed coat. The total consumption of these seeds was 0.1 % after 30 minutes, 13.8 % after 1 day and 71.5 % after 48 hours. The seeds of *S. media* were consumed less. This indicates that the consumption was enhanced by either an increase of volatile compounds from the damaged seeds that attracted the beetles, or from shorter handling time due to reduced physical barrier of the crushed coat.

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