Special Issue

Volatile Organic Compounds Regulating Multitrophic (Plant– Pest–Antagonist) and Multilevel (Belowground–Aboveground) Interactions

Message from the Guest Editors

Chemical compounds regulating multitrophic and multilevel interactions are considered innovative tools to be exploited for the sustainable protection of agricultural and forest systems. These compounds include those induced aboveground by a herbivore's attack and that guide herbivores' natural antagonists (insect predators and parasitoids) to their prey and host targets, but also those induced by root symbionts. In recent years, it has been demonstrated that root colonization by symbionts belonging to the genus Trichoderma or by arbuscular mycorrhizal fungi (AMF) alters the profile of VOCs released by either healthy or herbivore-infested plants, affecting, in turn, the behavioural response of herbivores' antagonists. This Special Issue will collect papers dealing with all aspects relative to VOC-mediated communication, aboveground and belowground, that could be exploited to improve the sustainable protection of agricultural and forest systems.

Guest Editors

Dr. Luigi Iodice

Dr. Liberata Gualtieri

Dr. Emilio Guerrieri

Deadline for manuscript submissions

closed (30 June 2024)



Insects

an Open Access Journal by MDPI

Impact Factor 2.9 CiteScore 5.6 Indexed in PubMed



mdpi.com/si/175217

Insects
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
insects@mdpi.com

mdpi.com/journal/insects





Insects

an Open Access Journal by MDPI

Impact Factor 2.9
CiteScore 5.6
Indexed in PubMed



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Brian T. Forschler

Department of Entomology, University of Georgia, 413 Biological Sciences Building, Athens, GA 30602-2603, USA

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, and other databases.

Journal Rank:

JCR - Q1 (Entomology) / CiteScore - Q1 (Insect Science)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.9 days after submission; acceptance to publication is undertaken in 2.6 days (median values for papers published in this journal in the second half of 2025).

