

# Call for papers: Special Issue on "Plant-insect chemical communication in a changing world"

## Theme

Plants and insects are key components for biodiversity and ecosystems services. Through hundreds of millions of years of evolution, they have formed complicated yet astonishing chemical communication networks between plants and pollinators, herbivores, and parasitoid insects, playing vital roles in both natural and agricultural systems. Chemical communication is an ancient and ubiquitous channel to mediate species interactions (e.g., attracting or repelling individuals) and regarded as one of the main forces shaping the ecology and evolution of plant-insect interactions. Therefore, understanding chemical communication between plants and insects has been an active research field and yielded flourishing achievements in multiple disciplines including molecular biology, neurobiology, ethology, ecology and evolution. Yet, in face of increasingly serious threats to ecological systems, how chemical communication may evolve, reshape plant-insect interaction and further affect ecosystem services and functioning is a crucial question for both scientific research and policy making.

The aim of this special issue is to synthesize our knowledge in plant-insect chemical communication from both empirical and theoretical perspectives, and to highlight some challenges and future directions.

## Subject Coverage

We welcome submissions related to

- proximate mechanisms of plant-insect chemical communication, including molecular, neural and developmental bases of chemical signal producing and receiving;
- ultimate mechanisms of plant-insect chemical communication, including the evolvability, plasticity, and phylogenetic constraints of chemical signals in plants and insects;

— the practicable perspective of plant-insect chemical communication, including its roles in agriculture, forestry, and ecosystem services and functioning;

— the dynamics of plant-insect chemical communication, including the temporal and spatial patterns of chemical communication between plants and insects, and how environmental disturbances (e.g., landscape change and climate change) affect the communication.

### **Organizers**

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### **Important Dates**

Authors interested in contributing to the special issue should email a proposal that includes a tentative title, tentative author list, and a 200–300-word abstract to the organizers. The deadline for abstract submission is **30 November 2020**. Proposals will be reviewed by the Guest Editors. Authors will be notified by **31 January 2021**, as to whether their proposal was accepted.

Authors whose proposals are accepted should prepare submissions in accordance with [JSE Author Guidelines](#) and submit their manuscripts by **31 August 2021** at <http://mc.manuscriptcentral.com/josae>. Note that acceptance of a proposal does not guarantee the eventual acceptance of the manuscript, as all manuscripts will be rigorously peer-reviewed and held to the standards of the journal.

The target date for publication of the special issue is early 2022, although accepted manuscripts will be published online in advance of the issue.

If you have any questions, please contact the special issue organizers or the Editorial Office at [jse@ibcas.ac.cn](mailto:jse@ibcas.ac.cn).