Special Issue

Vector-Borne Plant Pathogens: Evolutionary, Ecological, and Molecular Insights into Tritrophic Associations

Message from the Guest Editors

Novel plant diseases represent a growing threat to global food security, yet the ecological and evolutionary mechanisms driving plant disease emergence remain poorly understood. Vector-borne pathogens often have higher transmission rates because their insect vectors can move rapidly between susceptible hosts across wide geographic areas. This increased mobility enhances exposure to new potential hosts, increasing the likelihood of host switching and disease emergence. This Special Issue aims to review the current state of knowledge on the ecology and evolution of vector-borne plant pathogens, including the molecular constraints and drivers of diversification in these complex associations.

We welcome a variety of contributions, including studies on the regional diversity of pathogen–vector–plant associations, the molecular determinants of vector or plant–pathogen interactions, and pathogen-induced host manipulation and its role in promoting host shifts and disease emergence, as well as research conducted in both agroecosystems and natural environments.

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Message from the Editor-in-Chief

Arthropods are a diverse and abundant group of animals that are important to a variety of research dictates. For example, hexapods act as bio-indicators of ecosystem function and pest status and serve as model systems for questions concerning physiology, embryology, genetics, and social interaction. The editorial board and staff at Insects is committed to providing contributors an open access forum to showcase objective and innovative research as well as succinct review articles. Our journal is dedicated to providing timely and thorough review of qualified submissions and we welcome you to submit a contribution.

Editor-in-Chief

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