# Special Issue

# Insect Adaptation in the Anthropocene: Responses to Contamination and Human-Induced Environmental Changes

## Message from the Guest Editors

Human activity is a major driver of insect adaptation, exerting selective pressures that shape their evolutionary trajectories. Over the past few decades, humans have drastically altered ecosystems, exposing insects to a variety of stressors both directly and indirectly. Insects exhibit diverse responses to anthropogenic stressors, as some populations decline while others adapt through physiological, genetic, or behavioral changes. Notably, some species have evolved resistance to pesticides and pollutants, often benefiting pest species while harming non-target organisms, including pollinators and natural enemies of pests. These changes contribute to biodiversity loss and shifts in the balance between beneficial and pest insects, with cascading ecological and agricultural consequences. This Special Issue seeks to explore the mechanisms and consequences of insect adaptation in the Anthropocene, covering topics such as resistance evolution, detoxification mechanisms, changes in reproduction, behavior, physiology, and life cycles, biodiversity shifts, and broader ecological and evolutionary trends.

## Guest Editors


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## Deadline for manuscript submissions

closed (20 April 2026)


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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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