

Special Issue

Plant Perception, Behavior, and Environmental Response Mechanisms

Message from the Guest Editors

Plants exhibit remarkable dynamism, engaging in continuous perception, signaling, and adaptive behavior. Far from being passive, plants integrate multiple sources of information to regulate their growth, development, and interaction with their surroundings. Advances in plant science have revealed a broad spectrum of intra- and inter-communication modalities. These processes are observed across a range of spatial and temporal scales, from the molecular to the behavioral level. This underscores the notion that plants function as active organisms in intricate networks of interaction. This Special Issue seeks to highlight the multifaceted nature of plant communication and behavior, ranging from intracellular pathways to ecosystem dynamics. We welcome contributions encompassing a variety of perspectives, including biological, chemical, physiological, behavioral, and theoretical approaches, that investigate how plants detect and process environmental stimuli, establish interactions with other organisms, and adapt through structural, physiological, and behavioral strategies, thereby illuminating the integrative systems that sustain plant life.

Guest Editors

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A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

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