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Genome Diversity and Evolution of Reproductive Systems

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Message from the Guest Editors

This Special Issue intends to contribute knowledge on breeding systems and evolutionary transitions between reproductive systems in order to understand the role they play in the evolution of angiosperms. The reproductive organs of flowering plants exhibit an astonishing floral diversity to ensure mating and reproduction. The great majority of angiosperms are hermaphroditic, facilitating opportunities for selfing and outcrossing, which have evolved. The most frequent evolutionary transition involving the reproductive systems of flowering plants is the change from outcrossing to selfing, resulting in genomic consequences for many related species. Despite genetic constraints, selfing can provide reproductive assurance and can be advantageous in environments where there are limited mating partners and/or pollen limitations. Consequently, apomicts may produce asexual and sexual progeny from different ovules and seeds in the same mother plant and within the same offspring generation through facultative sexuality. This diversity of reproductive systems varies a lot among genera and affects many important aspects of population ecology, and have extraordinary evolutionary consequences.



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Special Issue



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Message from the Editor-in-Chief

Genes are central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fastmoving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised.

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