

Polyploid and Hybrid Genomics

Edited by Z. Jeffrey Chen and James A. Birchler

Understanding the evolutionary consequences of polyploidy and the biological complexity of hybrid vigor or heterosis is a key challenge for geneticists and biologists in the post-genomic era. They share the common aspect that they result from bringing together different genomes. Polyploidy and hybrid vigor have implications for biological diversity, species survival, and trait improvement. Grasping the genomic and molecular underpinning of polyploidy and heterosis could have a significant impact in numerous fields ranging from evolutionary biology, computational biology, genetics, epigenetics, and biotechnology. Moreover, they will no doubt impact the development of sustainable food and biofuel production. *Polyploid and Hybrid Genomics* provides a timely synthesis of the latest research in the molecular mechanisms that underlie this important genetic and evolutionary process.

Polyploid and Hybrid Genomics is made up of contributions from leading researchers in the field around the world, providing a global and comprehensive view of the subject. The book is divided into three sections: the first two sections explore the genomics of hybrids and of polyploids, respectively. The final section discusses key mechanisms for novelty in polyploids and hybrids.

Providing broad-ranging coverage, and up-to-date information, *Polyploid and Hybrid Genomics* will be an invaluable resource for geneticists, crop scientists, and evolutionary biologists alike.

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