

MOLECULAR CONFIRMATION OF EVOLUTION OF CROP MIMICRY BY INTROGRESSION FROM MAIZE TO TEOSINTE. Lesley Blancas, Dulce Maria Arias, Ariel Alvarez Morales, and Norman C. Ellstrand, Postdoctoral Scholar, UCR Department of Botany and Plant Sciences, Riverside CA 92521, Director and Professor of Molecular Systematics, CEAMISH, UAEM, Morelos, Mexico, Professor of Molecular Genetics, CINVESTAV, Irapuato, Mexico, and Professor of Genetics and Director, UCR Department of Botany and Plant Sciences and Biotechnology Impacts Center, Riverside CA 92521.

The hybrid zone interface, where two genetically distinct populations overlap, is a natural hot spot for both the assortment of genes and the generation of new recombinant alleles. However, hybrid zones between crop and wild species are seldom studied thoroughly enough to address evolution at the genomic level. For example, one question that remains elusive is the introgression and evolutionary fate of crop genes in natural populations. Populations of wild crop relatives closely associated with their domesticated relative acquire introgressed genes that mimic the crop form and allow them to evade removal in agricultural fields. Our study examines the evolution of a domesticated gene in maize-teosinte hybrid zones in Mexico, and molecular evidence for crop mimicry.