



CENTER OF
PLANT SCIENCES



Sant'Anna
School of Advanced Studies - Pisa

Seminar

Evolution of crops and their pests in traditional agroecosystems

Prof. Jesse Lasky

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Bio

Jesse Lasky is Associate Professor at the Department of Biology of the Pennsylvania State University, where he works on evolutionary genetics, physiology, & ecology of plants in the effort of identifying the genetic, physiological, and ecological mechanisms of local adaptation to environment and host-symbiont coevolution.

Abstract

Since domestication many crops have been dispersed widely. Over time these crops have encountered new environments, genetically diverged from other populations, and perhaps adapted to the new conditions encountered. I will present research trying to understand the mechanisms driving genetic and phenotypic diversity in crop landraces. I will show how rice landraces have changed in association with different abiotic and human cultural factors. I will show how local sorghum varieties have adapted to conditions across Africa and Asia. In particular I will explore the evolution of sorghum landraces' resistance to a native parasitic plant in Africa: *Striga hermonthica*, and how *Striga* itself has evolved across the African continent. The great diversity that exists in crop landraces is a potential resource for creating crops for future environments, and these systems also offer opportunities for testing evolutionary and ecological hypotheses.

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14:00

Aula Magna storica

Contatti

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