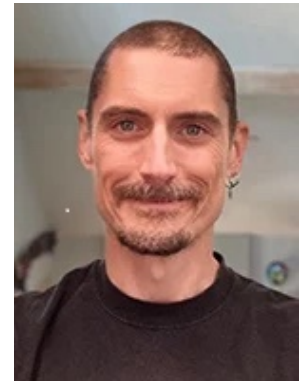


GATERSLEBEN LECTURE



Speaker: Prof. Dr. Jeffrey Ross-Ibara
Dept. of Evolution and Ecology, University of
California Davis, USA



Title: A tale of two teosintes: the hybrid origin of
maize

Time: Wednesday, February 9, 2022, 5 pm

Place: VCS Zoom: Meeting-ID: 852 5068 8427 Kenncode: 906861
[https://ipk-gatersleben-
de.zoom.us/j/85250688427?pwd=NkNXZS95aFNsVmY2U29QempuUEJqUT09](https://ipk-gatersleben-de.zoom.us/j/85250688427?pwd=NkNXZS95aFNsVmY2U29QempuUEJqUT09)

Skype for Business: <https://ipk-gatersleben-de.zoom.us/skype/85250688427>

Abstract:

The dramatic morphological differences between domesticated maize and its wild relatives led to more than 100 years of debate on its origins. In the end, careful genetic and archeological work revealed that maize was domesticated in Mexico from the wild teosinte *Zea mays* ssp. *parviglumis*. Paradoxically, however, maize plants most genetically similar to *parviglumis* were found to be from the highlands of central Mexico, outside the native range of this teosinte. Subsequent analysis found that this signal was due to additional hybridization between maize and a second teosinte, the highland *Zea mays* ssp. *mexicana*. Here, we extend this work by first characterizing the extent of adaptive introgression from *mexicana* into maize in the highlands of Mexico and South America. Second, using a worldwide survey of hundreds of modern and traditional maize genomes, we show that *mexicana* introgression can be found at appreciable levels in all maize, and highlight evidence of the contribution of *mexicana* alleles to phenotypic diversity in modern maize. Finally, by comparing the timing of hybridization to archeological data, we propose the hypothesis that hybridization with *mexicana* may indeed have been necessary to convert maize from a minor cultivar into a staple crop.

Academic CV

Education

PhD Genetics, University of Georgia 2006
MS Botany, University of California Riverside 2000
BA Botany, University of California Riverside 1998

Academic Employment

Professor, Dept. Evolution and Ecology, University of California Davis 2019-present
Paternity leave 2017
Professor, Dept. Plant Sciences, University of California Davis 2016-2019
Associate Professor, Dept. Plant Sciences, University of California Davis 2012-2016
Assistant Professor, Dept. Plant Sciences, University of California Davis 2009-2012
Postdoctoral Researcher, University of California Irvine 2006-2008
Professor de Asignatura, Universidad Nacional Autónoma de México 2001

Dr. Hélène Pidon, Madita Lauterberg (Hosts) and Prof. Dr. Nils Stein (Organizer)