

# Jeffrey Ross-Ibarra

Department of Plant Sciences  
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## 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. Plant Sciences, University of California Davis 2016-present  
Associate Professor, Dept. Plant Sciences, University of California Davis 2012-2016  
Assistant Professor, Dept. Plant Sciences, University of California Davis 2009-2012  
Postdoctoral Researcher (with BS Gaut), University of California Irvine 2006-2008  
Profesor de Asignatura, Universidad Nacional Autónoma de México 2001

## Selected Fellowships and Awards

Stadler Mid-Career Excellence in Maize Genetics Award 2016  
Faculty Development Award in recognition of university service 2015  
DuPont Young Professor Award 2012  
Presidential Early Career Award for Scientists and Engineers 2009  
Dean's Award for Postdoctoral Excellence, UC Irvine 2008

## Instruction and Advising

Current (total) advisees: 7 (19) postdoc, 4 (7) graduate, 3 (28) undergraduate  
Plant Biology (UC Davis, PLB200A, graduate), 2018-present  
Instructor, Frontiers and Techniques in Plant Science, CSHL, July 2015  
Genetics (UC Davis, BIS 101, undergraduate), 2013-present  
Ecological Genomics (UC Davis, ECL 243, graduate), 2014-present  
Faculty advisor, Pioneer Hi-Bred/CAES graduate student symposium in plant breeding, 2012-present  
Faculty advisor, US-Mexico graduate student exchange program, 2011-2015  
Population and Quantitative Genetics (GGG 201D, graduate), 2010-2013  
Plant Genetics (PLS 152, undergraduate), 2010-2011  
Biología de Plantas I (undergraduate), UNAM, 2001

## Service: selected from last 2 years

### *University*

Ecology Graduate Group admissions committee 2018  
 Campus Disciplinary Peer Review Committee on sexual violence and sexual harassment, 2017-present  
 Campus Task Force on Bioinformatics, 2017-present  
 Campus High Performance Computing Advisory Committee, 2016-present  
 Section Chair for Agricultural Plant Biology, 2014-2019  
 Plant Sciences executive committee, 2014-2019  
 Search committees: Dept. Chair of Plant Sciences (Chair, 2016), Climate Adaptation (2017-2018)  
 Dept. of Plant Sciences academic planning committee, 2010-2016, 2018-present

### *Professional*

Skype-a-Scientist K-12 Outreach: 2017: Korematsu Elementary, CA; Shelburne Middle School, VA; Summit Hill Elementary, IL; 2018: Espiciencia, Spain; Valleyview Middle School, NJ  
 Maize Genetics conference steering committee, 2018-present  
 Maize Genetics Awards Committee, 2017,2019  
 External search committee, Dept. Plant Biology, Swedish University of Agricultural Sciences (2016)  
 Editorial Boards: Genes, Genomes, and Genetics (AE 2014-present, SE 2017-present), Genetics (AE, 2018), PLoS Genetics (2018-Present), PeerJ (2013-present, SE 2018-present), Axios Reviews (2013-2017), PNAS (Guest, 2018), eLife (Guest, 2016)  
 Journal peer review: Nature (3), eLife, Cell, Nature Communications, PNAS (3), The Plant Cell, Genome Research, New Phytologist, Genome Biology & Evolution, Molecular Ecology (3), G3 (many), BMC Genomics (2), Plant Journal, Scientific Reports, Agriculture, Ecosystems and Environment  
 Proposal review: NSF (2016,2017 (2)), Swiss National Science Foundation (2016), GWIS (2016), Israeli Science Foundation (2016)

## Current Funding

NSF: "Harnessing convergence and constraint to predict adaptations to abiotic stress for maize and sorghum" \$740,000 of \$5.4M total (Co-PI), 2018-2022  
 NSF: "The evolutionary genetics of pollen-pistil incompatibility and reproductive isolation in *Zea mays*" \$320,000 of \$1M total (Co-PI), 2018-2021  
 NSF: "The genetics of highland adaptation in maize", \$4.2M (PI), 2016-2021  
 NSF: "Biology of rare alleles in maize and its wild relatives" \$3.2M of \$13M total (Co-PI), 2013-2019

## Invited Seminars: last 12 months

Keynote Speaker, Seed Central, U. California, Davis, Feb 2019  
 Annual James Brewbaker Lecture on Genetics & Plant Breeding, U. Hawaii, Manoa Dec. 2018  
 National Science Foundation, Washington DC, Sept 2018  
 U. Georgia, Athens, Aug 2018  
 Science and Society public lecture, Woodland, Aug 2018

Fisher Biosciences, July 2018

Corteva Agriscience, Johnston, July 2018

Plenary Speaker, Maize Genetics Conference, Saint-Malo, France, Mar 2018

University of Paris-Saclay, Gif-sur-Yvette, France, Mar 2018

U. California, Davis, Mar 2018

Plant And Animal Genome Conference (two workshops), San Diego, Jan 2018

## Publications (lab members bold, \*equal contribution, †undergraduate, §corresponding, [citations])

### Preprints

Gonzalez-Segovia E, PÃlrez-Limon S, CÃntora-MartÃnez C, Guerrero-Zavala A, Jansen G, Hufford MB, **Ross-Ibarra J**, Sawers RJH. Characterization of introgression from the teosinte *Zea mays* ssp. mexicana to Mexican highland maize. doi: 10.7287/peerj.preprints.27489v1

Anderson SN\*, **Stitzer MC\***, Brohammer A\*, Zhou P, Noshay JM, Hirsch C, Hirsch C, Springer NM. Transposable elements contribute to dynamic genome content in maize. doi: 10.1101/547398

**O'Brien AM**§, Sawers RJH, Strauss SY, **Ross-Ibarra J**§. Adaptive phenotypic divergence in teosinte differs across biotic contexts. doi: 10.1101/382770 [0]

**Stitzer MC**§, Anderson SN, Springer NM, **Ross-Ibarra J**. The Genomic Ecosystem of Transposable Elements in Maize. doi: 10.1101/559922

### In press or in print

H-Index 38 (6653 citations as of Thu Feb 28 14:59:50 2019)

81. **Josephs EM**§, Berg JJ, **Ross-Ibarra J**, Coop G (2019) Detecting adaptive differentiation in structured populations with genomic data and common gardens. *GENETICS In Press* [0]
80. **Stetter MG**§, Thornton K, **Ross-Ibarra J**§ (2018) Genetic architecture and selective sweeps after polygenic adaptation to distant trait optima. *PLOS GENETICS* 14(11): e1007794. [1]
79. **O'Brien A**§, Sawers R, **Ross-Ibarra J**, Strauss SY§ (2018) Evolutionary responses to conditionality in species interactions across environmental gradients. *AMERICAN NATURALIST* 192(6): 715-730. [0]
78. **Stitzer MC**§, **Ross-Ibarra J** (2018) Maize domestication and gene interaction. *NEW PHYTOLOGIST* 220:395-408 [6]
77. Manchanda N, Snodgrass SJ, **Ross-Ibarra J**, Hufford MB (2018) Evolution and adaptation in the maize genome. *In THE ZEA MAYS GENOME*, Bennetzen, Flint-Garcia, Hirsch, Tuberosa (Eds.), Springer Nature Publishing *In Press* [0]
76. **Lorant A**, **Ross-Ibarra J**, Maud Tenaillon (2018) Genomics of long- and short- term adaptation in maize and teosinte. *In STATISTICAL POPULATION GENOMICS*, Dutheil (Ed.), Springer Nature Publishing *In Press* [1]

75. Dawe RK, Lowry EG, Gent J, **Stitzer MC**, Higgins DM, **Ross-Ibarra J**, Wallace JG, Kanizay L, Alabady M, Wang N, Gao Z, Birchler J, Harkess AE, Hodges AL, Hiatt EN (2018) A novel maize kinesin causes neocentromere activity and meiotic drive, altering inheritance patterns across the genome. *CELL* 173: 839-850. [7]
74. Aburto-Oropeza O, Johnson A, Agha M, Allen E, Allen M, González JA, Arenas-Moreno DM, Beas R, Butterfield H, Caetano G, Caselle J, Casteñada Gaytán G, Castorani MCN, Anh Cat L, Cavanaugh K, Chambers JQ, Cooper RD, Arafeh-Dalmau N, Dawson T, Diaz de la Vega A, DiMento JFC, Domínguez S, Edwards M, Ennen J, Estrada-Medina H, Fierro N, Gadsden H, Galina-Tessaro P, Gibbons P, Goode EV, Gorris ME, Harmon T, Hecht SB, Heredia Fragoso MA, Hernández-Solano A, Hernández-Cortés D, Hernández-Carmona G, Hillard S, Huey RB, Hufford MB, Pàramo Figueroa VH, Jenerette D, Jiménez-Osornio J, López-Nava KJ, Lara R, Leslie H, Lopez-Feldman A, Luja V, Martínez-Méndez N, Mautz W, Medellín-Azuara J, Meléndez-Torres C, de la Cruz FRM, Micheli F, Miles D, Montagner G, Montaña-Moctezuma G, Müller J, Oliva P, Ortinez A, Ortiz Partida JP, Palheiro-Nayar J, Parnell PE, Raimondi P, Ramirez A, Randerson JT, Reed DC, Riquelme M, Torres TR, Rosen PC, **Ross-Ibarra J**, Sanchez-Cordero V, Sandoval-Solis S, Santos J, Sawers R, Sinervo B, Sites J, Sosa-Nishizaki O, Stanton T, Stapp J, Stewart J, Torre J, Torres-Moye G, Treseder KK, Valdez-Villavicencio JH, Jiménez FIV, Vaughn M, Welton L, Westphal MF, Woolrich-Piña G, Yunez-Naude A, Zertuche-González JA, Taylor JE (2018) Harnessing Cross-border Resources to Confront Climate Change. *ENVIRONMENTAL SCIENCE AND POLICY In Press*. [0]
73. **Bilinski P<sup>§</sup>**, Albert P, Berg JJ, Birchler JA, Grote M, **Lorant A**, **Quezada J<sup>†</sup>**, Swarts, K, **Yang J**, **Ross-Ibarra J<sup>§</sup>** (2018) Parallel altitudinal clines reveal adaptive evolution of genome size in *Zea mays*. *PLOS GENETICS* 14: e1007162 [15]
72. **Mei W**, **Stetter MG**, **Gates DJ**, **Stitzer MC**, **Ross-Ibarra J<sup>§</sup>** (2018) Adaptation in plant genomes: bigger is different. *AMERICAN JOURNAL OF BOTANY* 105: 16-19 [0]
71. Bukowski R, Guo X, Lu Y, Zou C, He B, Rong Z, Wang B, Xu D, Yang B, Xie C, Fan L, Gao S, Xu X, Zhang G, Li Y, Jiao Y, Doebley J, **Ross-Ibarra J**, **Lorant A**, **Buffalo V**, Romay MC, Buckler ES, Ware D, Lai J, Sun Q, Xu Y (2017) Construction of the third generation *Zea mays* haplotype map. *GIGASCIENCE* gix134 [39]
70. Wang L, **Beissinger TM**, **Lorant A**, **Ross-Ibarra C**, **Ross-Ibarra J<sup>§</sup>**, Hufford MB<sup>§</sup> (2017) The interplay of demography and selection during maize domestication and diffusion. *GENOME BIOLOGY* 18:215 [24]
69. **Yang J<sup>§</sup>**, **Mezmouk S\***, Baumgarten A, Buckler ES, Guill KE, McMullen MD, Mumm RH, **Ross-Ibarra J<sup>§</sup>** (2017) Incomplete dominance of deleterious alleles contribute substantially to trait variation and heterosis in maize. *PLOS GENETICS* 13:e1007019 [18]
68. **Lorant A**, Pedersen S, Holst I, Hufford MB, Winter K, Piperno D, **Ross-Ibarra J<sup>§</sup>** (2017) The potential role of genetic assimilation during maize domestication. *PLOS ONE* 12:e0184202 [4]
67. Aguilar-Rangel MR, Chàvez Montes RA, Gonzalez-Segovia E, **Ross-Ibarra J**, Simpson JK, Sawers RJH (2017) Allele specific expression analysis identifies regulatory variation associated with stress-related genes in the Mexican highland maize landrace Palomero Toluqueño. *PEERJ* 5:e3737 [4]
66. **Stetter MG<sup>§</sup>**, **Gates DJ**, **Mei W**, **Ross-Ibarra J<sup>§</sup>** (2017) How to make a domesticate. *CURRENT BIOLOGY* 27:R896-R900 [4]

65. Swarts K, Gutaker RM, Schuenemann V, Benz B, Blake M, Bukowski R, Holland J, Kruse-Peebles M, Lepak N, Matson RG, Prim L, Romay C, **Ross-Ibarra J**, Sanchez J, Schmidt C, Sofro E, Krause J, Weigel D, Buckler ES, Burbano HA (2017) Genomic estimation of complex traits reveals ancient maize adaptation to temperate North America. *SCIENCE* 357:512-515 [32]
64. **Bilinski P<sup>S</sup>**, Han Y, **Hufford MB**, **Lorant A**, Zhang P, Jiang J, **Ross-Ibarra J<sup>S</sup>** (2017) Genomic abundance is not predictive of tandem repeat localization in grass genomes. *PLoS ONE* 12:e0177896 [2]
63. Jiao Y, Peluso P, Shi J, Liang T, **Stitzer MC**, Wang B, Campbell M, Stein JC, Wei X, Chin C-S, Guill K, Regulski M, Kumari S, Olson A, Gent J, Schneider KL, Wolfgruber TK, May MR, Springer N, Antoniou E, McCombie R, Presting GG, McMullen M, **Ross-Ibarra J**, Dawe RK, Hastie A, Rank DR, Ware D (2017) Improved maize reference genome with single-molecule technologies. *NATURE* 546:524-527 [166]
62. **Renny-Byfield S<sup>S</sup>**, Rodgers-Melnick E, **Ross-Ibarra J<sup>S</sup>** (2017) Gene fractionation and function in the ancient subgenomes of maize. *MBE* 34:1825-1832 [16]
61. **Velasco D**, Aradhya M, and **Ross-Ibarra J<sup>S</sup>** (2016) Evolutionary genomics of peach and almond domestication. *G3* 6:3985-3993 [14]
60. Ramos-Madrigal J, Smith BD, Moreno-Mayar JV, Gopalakrishnan S, **Ross-Ibarra J**, Gilbert MTP, Wales N (2016) Genome sequence of a 5310-year-old maize cob provides insights into the early stages of maize domestication. *CURRENT BIOLOGY* 26:3195-3201 [14]
59. **Durvasula A<sup>†\*</sup>**, Hoffman PJ\*, **Kent TV<sup>†</sup>**, Liu C, Kono TJY, Morrell PL<sup>S</sup>, **Ross-Ibarra J<sup>S</sup>** (2016) ANGSD-wrappier. *MOLECULAR ECOLOGY RESOURCES* 16:1449-1454 [0]
58. **Beissinger TM<sup>S</sup>**, Wang L, **Crosby K**, **Durvasula A<sup>†</sup>**, Hufford MB, **Ross-Ibarra J<sup>S</sup>** (2016) Recent demography drives changes in linked selection across the maize genome. *NATURE PLANTS* 2:16084 [43]
57. Wolfgruber TK, Nakashima MM, Schneider KL, Sharma A, Xie Z, Albert PS, Xu R, **Bilinski P**, Dawe RK, **Ross-Ibarra J**, Birchler JA, Presting G (2016) High quality maize centromere 10 sequence reveals evidence of frequent recombination events. *FRONTIERS IN PLANT SCIENCE* 7 [14]
56. Orozco-Ramírez Q, Santacruz-Varela A, **Ross-Ibarra J**, Brush B (2016) Maize diversity associated with social origin and environmental variation in southern Mexico. *HEREDITY* 116:477-484. [19]
55. Gerke JP<sup>S</sup>, Edwards JW, Guill KE, **Ross-Ibarra J<sup>S</sup>**, McMullen MD. The genomic impacts of drift and selection for hybrid performance in maize (2015). *GENETICS* 201: 1201-1211 [20]
54. Sosso D, Luo D, Li Q-B, Sassse J, **Yang J**, Gendrot G, Suzuki M, Koch KE, McCarty DR, Chourey PS, Rogoswky PM, **Ross-Ibarra J**, Yang B, Frommer WB (2015) Seed filling in domesticated maize and rice depends on SWEET-mediated hexose transport. *NATURE GENETICS* 47:1489-1493 [68]
53. **Takuno S**, Ralph P, Swarts K, Elshire RJ, Glaubitz JC, Buckler ES, **Hufford MB**, **Ross-Ibarra J<sup>S</sup>** (2015) Independent molecular basis of convergent highland adaptation in maize. *GENETICS* 200:1297-1312 [37]
52. **Vann LE**, **Kono T**, **Pyhäjärvi T**, **Hufford MB<sup>S</sup>**, **Ross-Ibarra J<sup>S</sup>** (2015) Natural variation in teosinte at the domestication locus *teosinte branched1* (*tb1*). *PEERJ* 3:e900 [9]

51. Hake S, **Ross-Ibarra J** (2015) Genetic, evolutionary and plant breeding insights from the domestication of maize. *ELIFE* 2015;4:e05861 [29]
50. Fonseca RR, Smith B, Wales N, Cappellini E, Skoglund P, Fumagalli M, Samaniego JA, Caroe C, Avila-Arcos MC, Hufnagel D, Korneliussen TS, Vieira FG, Jakobsson M, Arriaza B, Willerslev E, Nielsen R, Hufford MB, Albrechtsen A, **Ross-Ibarra J**, Gilbert MT (2015) The origin and evolution of maize in the American Southwest. *NATURE PLANTS* 1:14003 [77]
49. Dyer GA, López-Feldman A, Yúnez-Naude A, Taylor JE, **Ross-Ibarra J** (2015) Reply to Brush *et al.*: A wake up call for crop conservation science. *PNAS* 112 (1), E2-E2 (letter). [5]
48. Makarevitch I, Waters M, West P, **Stitzer M**, **Ross-Ibarra J**, Springer NM (2015) Mobile elements contribute to activation of genes in response to abiotic stress. *PLOS GENETICS* 11 (1): e1004915. [145]
47. Tiffin P, **Ross-Ibarra J** (2014) Advances and limits of using population genetics to understand local adaptation. *TRENDS IN ECOLOGY AND EVOLUTION* 29:673-680 [154]
46. **Bilinski P**, **Distor KD**, **Gutierrez-Lopez J**, **Mendoza Mendoza G**, Shi J, Dawe RK, **Ross-Ibarra J**<sup>S</sup> (2014) Diversity and evolution of centromere repeats in the maize genome. *CHROMOSOMA* 0009-5915 [15]
45. **Mezmouk S**, **Ross-Ibarra J**<sup>S</sup> (2014) The pattern and distribution of deleterious mutations in maize. (2014). *G3* 4:163-171 [0]
44. Waters AJ, **Bilinski P**, Eichten SR, Vaughn MW, **Ross-Ibarra J**, Gehring M, Springer NM (2013) Comprehensive analysis of imprinted genes in maize reveals allelic variation for imprinting and limited conservation with other species. *PNAS* 110:19639-19644 [64]
43. **Pyhäjärvi T**, **Hufford MB**, **Mezmouk S**, **Ross-Ibarra J**<sup>S</sup> (2013) Complex patterns of local adaptation in teosinte. *GENOME BIOLOGY AND EVOLUTION* 5: 1594-1609 [81]
42. Wills DM, Whipple C, **Takuno S**, Kursel LE, Shannon LM, **Ross-Ibarra J**, Doebley JF (2013) From many, one: genetic control of prolificacy during maize domestication. *PLOS GENETICS* 9(6): e1003604. [53]
41. McCouch S, Baute GJ, Bradeen J, Bramel P, Bretting PK, Buckler E, Burke JM, Charest D, Cloutier S, Cole G, Dempewolf H, Dingkuhn M, Feuillet C, Gepts P, Grattapaglia D, Guarino L, Jackson S, Knapp S, Langridge P, Lawton-Rauh A, Lijua Q, Lusty C, Michael T, Myles S, Naito K, Nelson RL, Pontarollo R, Richards CM, Rieseberg L, **Ross-Ibarra J**, Rounsley S, Hamilton RS, Schurr U, Stein N, Tomooka N, van der Knaap E, van Tassel D, Toll J, Valls J, Varshney RK, Ward J, Waugh R, Wenzl P, Zamir. (2013) Agriculture: Feeding the future. *NATURE* 499:23-24 [270]
40. **Hufford MB**, Lubinsky P, **Pyhäjärvi T**, **Devenganzo MT**<sup>†</sup>, Ellstrand NC, **Ross-Ibarra J**<sup>S</sup> (2013) The genomic signature of crop-wild introgression in maize. *PLOS GENETICS* 9(5): e1003477. [164]
39. **Provance MC**<sup>S</sup>, Garcia Ruiz I, **Thommes C**<sup>†</sup>, **Ross-Ibarra J** (2013) Population genetics and ethnobotany of cultivated *Diospyros riojae* Gómez Pompa (Ebenaceae), an endangered fruit crop from Mexico. *GENETIC RESOURCES AND CROP EVOLUTION* 60: 2171-2182. [4]

38. Melters DP\*, Bradnam KR\*, Young HA, Telis N, May MR, Ruby JG, Sebra R, Peluso P, Eid J, Rank D, Fernando Garcia J, DeRisi J, Smith T, Tobias C, **Ross-Ibarra J**<sup>§</sup>, Korf IF<sup>§</sup>, Chan SW-L. (2013) Patterns of centromere tandem repeat evolution in 282 animal and plant genomes. *GENOME BIOLOGY* 14:R10 [174]
37. Kanizay LB, **Pyhäjärvi T**, Lowry E, **Hufford MB**, Peterson DG, **Ross-Ibarra J**, Dawe RK (2013) Diversity and abundance of the Abnormal chromosome 10 meiotic drive complex in *Zea mays*. *HEREDITY* 110: 570-577. [12]
36. **Hufford MB**, Bilinski P, **Pyhäjärvi T**, **Ross-Ibarra J**<sup>§</sup> (2012) Teosinte as a model system for population and ecological genomics. *TRENDS IN GENETICS* 12:606-615 [42]
35. Muñoz Diez C, Vitte C, **Ross-Ibarra J**, Gaut BS, Tenaillon MI (2012) Using nextgen sequencing to investigate genome size variation and transposable element content. In Grandbastien M-A, Casacuberta JM, editors. *TOPICS IN CURRENT GENETICS v24: Plant Transposable Elements - Impact on Genome Structure & Function*. pp. 41-58 [15]
34. **van Heerwaarden J**<sup>§</sup>, **Hufford MB**, **Ross-Ibarra J**<sup>§</sup> (2012) Historical genomics of North American maize. *PNAS* 109: 12420-12425 [94]
33. Swanson-Wagner R, Briskine R, Schaefer R, **Hufford MB**, **Ross-Ibarra J**, Myers CL, Tiffin P, Springer NM. Reshaping of the maize transcriptome by domestication. (2012). *PNAS* 109: 11878-11883 [87]
32. **Hufford MB**\*, Xun X\*, **van Heerwaarden J**\*, **Pyhäjärvi T**\*, Chia J-M, Cartwright RA, Elshire RJ, Glaubitz JC, Guill KE, Kaeppler S, Lai J, Morrell PL, Shannon LM, Song C, Spinger NM, Swanson-Wagner RA, Tiffin P, Wang J, Zhang G, Doebley J, McMullen MD, Ware D, Buckler ES<sup>§</sup>, Yang S<sup>§</sup>, **Ross-Ibarra J**<sup>§</sup> (2012) Comparative population genomics of maize domestication and improvement. *NATURE GENETICS* 44:808-811 [460]
31. Chia J-M\*, Song C\*, Bradbury P, Costich D, de Leon N, Doebley JC, Elshire RJ, Gaut BS, Geller L, Glaubitz JC, Gore M, Guill KE, Holland J, **Hufford MB**, Lai J, Li M, Liu X, Lu Y, McCombie R, Nelson R, Poland J, Prasanna BM, **Pyhäjärvi T**, Rong T, Sekhon RS, Sun Q, Tenaillon M, Tian F, Wang J, Xu X, Zhang Z, Kaeppler S, **Ross-Ibarra J**, McMullen M, Buckler ES, Zhang G, Xu Y, Ware, D (2012) Maize HapMap2 identifies extant variation from a genome in flux. *NATURE GENETICS* 44:803-807 [426]
30. Fang Z, **Pyhäjärvi T**, Weber AL, Dawe RK, Glaubitz JC, Sánchez González J, **Ross-Ibarra C**, Doebley J, Morrell PL<sup>§</sup>, **Ross-Ibarra J**<sup>§</sup> (2012) Megabase-scale inversion polymorphism in the wild ancestor of maize. *GENETICS* 191:883-894 [50]
29. Cook JP, McMullen MD, Holland JB, Tian F, Bradbury P, **Ross-Ibarra J**, Buckler ES, Flint-Garcia SA (2012) Genetic architecture of maize kernel composition in the Nested Association Mapping and Inbred Association panels. *PLANT PHYSIOLOGY* 158: 824-834 [0]
28. Morrell PL, Buckler ES, **Ross-Ibarra J**<sup>§</sup> (2012) Crop genomics: advances and applications. *NATURE REVIEWS GENETICS* 13:85-96 [328]
27. Studer A, Zhao Q, **Ross-Ibarra J**, Doebley J (2011) Identification of a functional transposon insertion in the maize domestication gene *tb1*. *NATURE GENETICS* 43:1160-1163. [322]

26. **van Heerwaarden J<sup>§</sup>**, Doebley J, Briggs WH, Glaubitz JC, Goodman MM, Sánchez González JJ, **Ross-Ibarra J<sup>§</sup>** (2011) Genetic signals of origin, spread and introgression in a large sample of maize landraces. *PNAS* 108: 1088-1092 [251]
25. **Hufford MB<sup>§</sup>**, Gepts P, **Ross-Ibarra J** (2011) Influence of cryptic population structure on observed mating patterns in the wild progenitor of maize (*Zea mays* ssp. *parviglumis*). *MOLECULAR ECOLOGY* 20: 46-55 [15]
24. Tenaillon MI, **Hufford MB**, Gaut BS, **Ross-Ibarra J<sup>§</sup>** (2011) Genome size and TE content as determined by high-throughput sequencing in maize and *Zea luxurians*. *GENOME BIOLOGY AND EVOLUTION* 3: 219-229 [136]
23. Eckert AJ, **van Heerwaarden J**, Wegrzyn JL, Nelson CD, **Ross-Ibarra J**, González-Martínez SC, and Neale DB (2010) Patterns of population structure and environmental associations to aridity across the range of loblolly pine (*Pinus taeda* L, Pinaceae). *GENETICS* 185: 969-982 [286]
22. Fuchs EJ, **Ross-Ibarra J<sup>§</sup>**, Barrantes G (2010) Reproductive biology of *Macleania rupestris*: a pollen-limited Neotropical cloud-forest species in Costa Rica. *JOURNAL OF TROPICAL ECOLOGY* 26: 351-354 [5]
21. Whitney KD, Baack EJ, Hamrick JL, Godt MJW, Barringer BC, Bennett MD, Eckert CG, Goodwillie C, Kalisz S, Leitch I, **Ross-Ibarra J** (2010) A role for nonadaptive processes in plant genome size evolution? . *EVOLUTION* 64: 2097-2109 [61]
20. **van Heerwaarden J**, **Ross-Ibarra J<sup>§</sup>**, Doebley J, Glaubitz JC, Sánchez González J, Gaut BS, Eguiarte LE (2010) Fine scale genetic structure in the wild ancestor of maize (*Zea mays* ssp. *parviglumis*). *MOLECULAR ECOLOGY* 19: 1162-1173 [35]
19. Shi J, Wolf S, Burke J, Presting G, **Ross-Ibarra J**, Dawe RK (2010) High frequency gene conversion in centromere cores. *PLoS BIOLOGY* 8: e1000327 [87]
18. Hollister JD, **Ross-Ibarra J**, Gaut BS (2010) Indel-associated mutation rate varies with mating system in flowering plants. *MOLECULAR BIOLOGY AND EVOLUTION* 27: 409-416. [35]
17. **van Heerwaarden J**, van Eeuwijk FA, **Ross-Ibarra J** (2010) Genetic diversity in a crop metapopulation. *HEREDITY* 104: 28-39 [251]
16. Gore MA\*, Chia JM\*, Elshire RJ, Sun Q, Ersoz ES, Hurwitz BL, Peiffer JA, McMullen MD, Grills GS, **Ross-Ibarra J**, Ware D, Buckler ES (2009) A first-generation haplotype map of maize. *SCIENCE* 326: 1115-1117. [611]
15. **May MR<sup>†</sup>**, **Provance MC**, Sanders AC, Ellstrand NC, **Ross-Ibarra J<sup>§</sup>** (2009) A pleistocene clone of Palmer's Oak persisting in Southern California. *PLoS ONE* 4: e8346. [24]
14. Zhang LB, Zhu Q, Wu ZQ, **Ross-Ibarra J**, Gaut BS, Ge S, Sang T (2009) Selection on grain shattering genes and rates of rice domestication. *NEW PHYTOLOGIST* 184: 708-720. [117]
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