# Tyler V. Kent

Contact

tvkent@unc.edu

Information W

Website: tvkent.github.io Twitter: @tylervkent Github: tvkent

EMPLOYMENT

#### Postdoctoral Research Associate

Nov 2022-present

University of North Carolina at Chapel Hill

Advisors: Dr. Daniel Matute and Dr. Dan Schrider

**EDUCATION** 

# Ph.D., Ecology and Evolutionary Biology

Jan 2023

University of Toronto

Thesis: Evolutionary consequences of plant genome structure

Advisor: Dr. Stephen I. Wright

B.S., Genetics and Genomics

Jun 2015

Minor in Statistics

University of California, Davis Advisor: Dr. Jeffrey Ross-Ibarra

SELECTED HONOURS AND AWARDS

#### NSERC Post-Graduate Scholarship, Doctoral (PGS-D) \$42,000

2019-2020

Faculty of Arts and Science Top Doctoral Fellowship \$115,000

University of Toronto Faculty of Arts and Science

2015-2019

2018

2018

University of Toronto EEB Outstanding Teaching Assistant Award \$100 Nominated by undergraduates in EEB323: Evolutionary Genetics

Ramsay Wright Award Honourable Mention \$250

University of Toronto EEB, for academic achievement and departmental contributions

Society for Molecular Biology and Evolution (SMBE) Registration Award \$395

2017

Evolutionary Genomics of Sex Travel Award \$550

American Genetic Association and Arizona State University

2016

Ecology and Evolutionary Biology Entrance Award \$3,000

Department of Ecology and Evolutionary Biology, University of Toronto

2015

Citation for Outstanding Performance

2015

College of Biological Sciences, UC Davis

**PUBLICATIONS** 

Kryvokhyzha D, Salcedo A, Eriksson MC, Duan T, Tawari N, Chen J, Guerrina M, Kreiner JM, **Kent TV**, Lagercrantz U, Stinchcombe JR, Glémin S, Wright SI, Lascoux M (2019)

Parental legacy, demography, and admixture influenced the evolution of the two subgenomes of the tetraploid *Capsella bursa-pastoris* (Brassicaceae).

PLoS Genetics 15(2): e1007949. doi: 10.1371/journal.pgen.1007949

Kent TV\*, Uzunović J\*, Wright SI (2017) Coevolution of transposable elements and recombination. Philosophical Transactions of the Royal Society B Volume 372, Issue 1736. doi: 10.1098/rstb.2016.0458 \* contributed equally

#### Sas C, Muller F, Kappel C, Kent TV, Wright SI, Hilker M, Lenhard M (2016)

Repeated inactivation of the first committed enzyme underlies the loss of benzaldehyde emission after the selfing-transition in *Capsella*.

Current Biology Volume 26, Issue 24, p33133319. doi: 10.1016/j.cub.2016.10.026

#### Durvasula A, Hoffman P, Kent TV, Liu C, Kono T, Morrell P, Ross-Ibarra J (2016)

ANGSD-wrapper: utilities for analyzing next generation sequencing data.  $Molecular\ Ecology\ Resources\ 16:\ 14491454.$  doi: 10.1111/1755-0998.12578

# Publications in Prep

#### Kent TV, Brandvain Y, Wright SI

Genome structure shapes patterns of introgression from Capsella rubella to Capsella quandiflora.

Kent TV\*, Platts AE\*, Edger PP\*, Choi JY, Zhao T, Maumus F, Washburn J, Shu S, An H, Mayfield-Jones D, Blanchette M, Bird KA, Dismukes W, Abrahams RS, Mummenhoff K, Berry K, Goodstein DM, Yoshinga Y, Daum C, Spunde A, Davidson P, Oakgrove K, Peng Y, Phillips J, Kudrna D, Talag J, Mabry ME, Al-Shehbaz I, Cappa JJ, Purugganan M, Pilon-Smits EA, Pepper AE, Schranz ME, Schmutz J, Weigel D, Mitchell-Olds T, Hall J, Koch MA, Wing RA, Pires JC, Wright SI

Comparative genomics of whole genome duplication in 32 species of the Brassicales.

\* contributed equally

## Kent TV, Wright SI

Patterns of diversity and linked selection in Rumex hastatulus.

#### Presentations

#### Kent TV, Brandvain Y, Wright SI

2023

Genome structure drives the landscape of introgression from selfing into outcrossing Capsella Talk at Evo-WIBO, Fort Worden, WA

#### Kent TV, Brandvain Y, Wright SI

2022

Talk at European Society for Evolutionary Biology (ESEB), Prague, Czech Republic.

# Kent TV, Brandvain Y, Wright SI

2022

Talk at Evolution (virtual).

#### Kent TV, Platts A, Wright SI, and the BMAP Consortium

Cancelled due to Covid19

Repeated polyploidization in the Brassicaceae drives both independent and convergent responses of selection and genome architecture

Talk at Society for Molecular Biology and Evolution (SMBE), Quebec City, Canada.

#### Kent TV, Platts A, Wright SI, and the BMAP Consortium

2019

Conserved sequence evolution and polyploidy in 32 Brassicales genomes

Poster at Society for Molecular Biology and Evolution (SMBE), Manchester, England

# Kent TV, Platts A, Wright SI, and the BMAP Consortium

2019

Genome evolution after whole genome duplication in 32 Brassicales species: Ghosts of polyploidy past Talk at the Atwood Colloquium in Ecology and Evolutionary Biology, Toronto, Canada

# Kent TV, Wright SI, and the BMAP Consortium

2018

Genome evolution after whole genome duplication in 32 Brassicales species Talk at the Second Joint Congress on Evolutionary Biology, Montpellier, France

#### Kent TV, Wright SI, and the BMAP Consortium

2017

Poster at Midwest PopGen, East Lansing MI

## Kent TV, Wright SI, and the BMAP Consortium

2017

	Kent TV and Wright SI  Mutation load within a selfing allotetraploid Talk at Evolutionary Genomics of Sex, Tempe AZ	2016
	Kent TV and Wright SI  How does mating system affect linked selection in Capsella?  Poster at The Allied Genetics Conference, Orlando FL	2016
	Durvasula A, <b>Kent TV</b> , Bhadra-Lobo S, Ross-Ibarra J ANGSD-wrapper: scripts to streamline and visualize NGS population genetics Poster at Bay Area Population Genomics (BAPG) XI meeting, UC Davis	2014 analysis
NON-PEER REVIEWED PUBLICATIONS	Kent TV (2016) TAGC16 Shorts: the bursting bubble of harmful mutations. <i>Genes to Genomes: a blog from the Genetics Society of America</i> . Contributed article. http://genestogenomes.org/tagc16-shorts-the-bursting-bubble-of-harmful-mutations/	
Software	$ANGSD-wrapper\ (https://github.com/ANGSD-wrapper/angsd-wrapper)$	
Teaching	Teaching Assistant (marking), BIO120 Adaptation and Biodiversity, (U of T)	Fall 2020, 2021
	Teaching Assistant, EEB323 Evolutionary Genetics, (U of T)	Fall 2017, 2018, 2019
	Course Development, EEB323 Evolutionary Genetics, (U of T)	Summer 2018
	Teaching Assistant, BIO251 Plant Form, Function, and Development, (U of T)	Winter 2018
	Teaching Assistant, BIO120 Adaptation and Biodiversity, (U of T)	Fall 2015, 2016
	Learning Assistant, BIS2B Principles of Ecology and Evolution, (UC Davis)	Fall 2012
Mentorship	Gwendolyn Clark, VIC One program (VIC170), U of T	Winter 2018
Journal Service	Preprint Editorial Team, $Proceedings$ of the Royal Society $B$ Plant Biology Section & Bioinformatics Section Leader	2019-present
	Reviewer: Evolution; Molecular Biology and Evolution; Genome Biology and E Genomes, Genetics; Molecular Ecology; Heredity; Molecular Biology Reports	volution; G3: Genes,
Department	EEB Graduate Student Association (EGSA) IT Representative (elected), U of T	2017-2020
Service & Outreach	Newsletter Editor and webmaster, The EEB Quarterly	2018-present
	EEB department twitter moderator (@eebtoronto), U of T	2017-2020
	Panelist, EEB NSERC award application graduate student panel, U of T	2018, 2019
	Volunteer at FACT-B Talk on Biodiversity (social media), Royal Ontario Museum	2019
	EGSA Atwood Colloquium Chair (elected), U of T	2018-2019

Atwood Lecturer search committee, U of T	2015-2017, 2019
Organizer of (Re)Views: A reviews-based journal club	2016, 2018
Session moderator, Atwood Colloquium in Ecology and Evolution, U of T	2018
Volunteer at AGA Presidential Symposium, U of T	2018
EGSA Secretary (elected), U of T	2017-2018
Volunteer at EEB booth for Science Rendezvous at the University of Toronto	2017
Co-leader of EEB Summer Book Club at the U of T	2017
EGSA co-chair for Student Journal Club (elected), U of T	2016-2017