

## BIOGRAPHICAL SKETCH

Amanda Stahlke

PhD Candidate, Bioinformatics and Computational Biology, University of Idaho

### (a) Professional Preparation:

Institution(s)	Major	Degree & Year
Colorado Mesa University, Grand Junction, CO	Biology	B.S., 2014
University of Idaho, Moscow, ID	Bioinformatics and Computational Biology	2015 – Present

### (c) Publications:

c.1. A list of ALL publications in peer-reviewed journals.

- Stahlke AR**, Bell D, Dhendup T, Kern B, Pannoni S, Robinson Z, Strait J, Smith S, Hand BK, Hohenlohe P, Luikart G. Training the next generation of conservation genomicists: ConGen 2018 Workshop. (2020). *Journal of Heredity*, 111 (2), 227–236. <https://doi.org/10.1093/jhered/esaa001>.
- Patton, AH, Margres MJ, **Stahlke AR**, Hendricks S, Lewallen K, Hamede RK, Ruiz-Aravena, M, Ryder O, McCallum HI, Jones ME, Hohenlohe PA, Storfer A. (2019). Contemporary demographic reconstruction methods are robust to genome assembly quality: A case study in Tasmanian Devils. *Molecular Biology and Evolution*, 36(12), 2906-2921. <https://doi.org/10.1093/molbev/msz191>.
- Stahlke AR**, Ozsoy AO, Bean DW, Hohenlohe PA. (2019). Mitochondrial genomes of *Diorhabda carinata* and *Diorhabda carinulata*, two beetle species introduced to N. America for biocontrol. *Microbiology Resource Announcements*, 8 (35) e00690-19; <https://doi.org/10.1128/MRA.00690-19>
- Margres MJ, Jones M, Epstein B, Kerlin DH, Comte S, Fox S, Fraik AK, Hendricks SA, Huxtable S, Lachish S, Lazenby B, O'Rourke SM, **Stahlke AR**, Wiench CG, Hamede R, Schonfeld B, McCallum H, Miller MR, Hohenlohe PA, Storfer, A. (2018). Large-effect loci affect survival in Tasmanian devils (*Sarcophilus harrisii*) infected with a transmissible cancer. *Molecular Ecology*, 27 (21), 4189-4199. <https://doi.org/10.1111/mec.14853>.
- Storfer A, Hohenlohe PA, Margres MJ, Patton A, Fraik AK, Lawrance M, Ricci LE, **Stahlke AR**, McCallum HI, Jones ME. (2018). The devil is in the details: Genomics of transmissible cancers in Tasmanian devils. *PLoS Pathogens*, 14(8), e1007098. <https://doi.org/10.1371/journal.ppat.1007098>.
- Bitume EV, Bean DW, **Stahlke AR**, Hufbauer RA. (2017). Hybridization affects life-history traits and host specificity in *Diorhabda* spp. *Biological Control*, 111, 45-52. <https://doi.org/10.1016/j.biocontrol.2017.05.009>
- Kennard, D, Loudon, N, Gemoets, D, Ortega S, González E, Bean DW, Cunningham P, Johnson T, Rosen K, **Stahlke AR**. (2016). Tamarix dieback and vegetation patterns following release of the northern tamarisk beetle (*Diorhabda carinulata*) in western Colorado. *Biological Control*, 101, 114-122. <https://doi.org/10.1016/j.biocontrol.2016.07.004>

c.2. For unpublished manuscripts, list only those submitted, in revision with minor or major revisions, or accepted for publication.

- Margres JM, Ruiz-Aravena M, Hamede R, Chawla K, Patton A, Lawrance M, Fraik AK, **Stahlke AR**, Davis B, Ostrander E, Jones ME, McCallum H, Paddison P, Hohenlohe PA, Hockenbery D, Storfer A. A mechanism for spontaneous regression in a transmissible cancer. In review.
- Poelstra J, Salmons J, George P, Tiley GP, Schübler D, Blanco MB, Jean B, Andriambelison JB, Bouchez O, Campbell CR, Etter PD, Iribar A, Hohenlohe PA, Kelsie E, Hunnicutt KE, Johnson EA, Larsen PA, Manzi S, Randrianambinina B, Rasolofson DW, **Stahlke AR**, Weisrock D, Williams RC, Chikhi L, Louis Jr. EE, Radespiel U, Yoder AD. Cryptic patterns of speciation in cryptic primates: microendemic mouse lemurs and the multispecies coalescent. In Review.

c.3. Papers published in other than peer-reviewed journals

- Fraik AK, Margres MJ, Epstein B, Barbosa S, Jones M, Hendricks S, Schönfeld B, **Stahlke AR**, Veillet A, Hamede R, McCallum H, Lopez-Contreras E, Kallinen SJ, Hohenlohe PA, Kelley JL, Storfer A. 2019. Disease swamps molecular signatures of genetic-environmental associations to abiotic factors in Tasmanian devil (*Sarcophilus harrisii*) populations. bioRxiv 780122; <https://doi.org/10.1101/780122>. In Review.
- Ozsoy AZ, **Stahlke AR**, Jamison L, Johnson M. 2019. Genetic identification and Hybrid Analysis of Tamarisk Leaf Beetle (*Diorhabda* spp.) and Tamarisk Weevil (*Coniatus* spp.) along the Rio Grande River NM watershed, 2019. Contract No. W912PP-14-P-0041. Delivered to Army Corp of Engineers.
- Ozsoy AZ, **Stahlke AR**, Jamison L, Johnson M. 2018. Genetic identification and Hybrid Analysis of Tamarisk Leaf Beetle (*Diorhabda* spp.) and Tamarisk Weevil (*Coniatus* spp.) along the Rio Grande River NM watershed, 2018. Contract No. W912PP-14-P-0041. Delivered to Army Corp of Engineers.
- Cortat G, Alderley C, Falgate, E, **Stahlke AR**, and Ribeiro S. (2016) Biological control of field bindweed, *Convolvulus arvensis*. Annual report 2015. CABI E-CH, Delémont, Switzerland, 8.
- Cortat, G, Gerber E, **Stahlke AR**, Cloșca C, and Hinz HL. (2016) Biological control of garlic mustard, *Alliaria petiolata*. Annual report 2015. CABI E-CH, Delémont, Switzerland, 14.
- Cortat, G, **Stahlke AR**, Alderley C, and Falgate E. (2016) Biological control of hawkweeds, *Pilosella* spp.. Annual report 2015. CABI E-CH, Delémont, Switzerland, 16.
- Hinz, H.L., Cloșca C., Castellan, I., Heijs W., Morelon S. and **Stahlke AR**. (2016) Biological control of whitetops, *Lepidium draba*, *L. chalepense* and *L. appelianum*. Annual Report 2015. CABI E-CH, Delémont, Switzerland, 27.
- Stutz S, Gerber E, **Stahlke AR**, Hinz HL, Cristofaro M, Augé M, Marini F, Di Cristina F. (2016) Biological control of perennial pepperweed, *Lepidium latifolium*. Annual report 2015. CABI E-CH, Delémont, Switzerland, 13.

**(d) Oral Presentations (presented by the graduate student):**

- § From work during PhD work at UI.
- § Environmental Determinants of Clonal Spread in Whitetop (*Lepidium draba*) in northeast Colorado. 18<sup>th</sup> Annual RiversEdge West Riparian Restoration Conference. Grand Junction, CO. February 5, 2020.
- § Gene flow and range expansion in the tamarisk beetle (*Diorhabda* spp). W4185: Biological Control in Pest Management Systems of Plants. Fort Collins, CO. October 3, 2019.
- § Genomic insights to rapid range expansion in a hybridizing biological control agent, the tamarisk leaf beetle. Arthropod Genomics Symposium. Manhattan, KS. June 13, 2019.
- § Innovation in Conservation at the Invasion Front. Inland Northwest Symposium on Research Computing and Data Science. University of Idaho. Moscow, ID. May 16, 2019.
- § Mind the Gap: Filtering and imputation of missing genomic data in genotype-environment associations. United States Regional Association of the International Association for Landscape Ecology. Fort Collins, CO. April 10, 2019.
- § Historically isolated tamarisk beetle species meet again on the Rio Grande & Pecos River. 17<sup>th</sup> Annual RiversEdge West Riparian Restoration Conference. Phoenix, AZ. Feb 10, 2019.
- § Range expansion, admixture & hybridization in a biological control agent, the tamarisk leaf beetle, *Diorhabda* spp. Palouse Ecology, Evolutionary, and Systematics Group. Moscow, ID. November 8, 2018.
- § Hitchhiker's Guide to RADseq: Molecular ecology in the next Generation. United States Department of Agriculture – National Plains Agricultural Research Laboratory. Sidney, MT. July 22, 2017.
- § Genomics of the tamarisk beetle and Tasmanian devils. Xinjiang Institute of Geography and Ecology, Chinese Academy of Sciences. Urumqi, Xinjiang, China. July 10, 2016.
- § Prospects in understanding the role of eco-evolutionary dynamics in a range expanding, hybridizing agent, the tamarisk leaf beetle, *Diorhabda* spp. XV International Symposium for Biological Control of Weeds. Engelberg, Switzerland. August 28, 2018.
- § Insight Gained from the Genome of Tamarisk Leaf Beetle (*Diorhabda* spp). W4185: Biological Control in Pest Management Systems of Plants. Whitefish, MT. October 12, 2018.
- § Genomic study of the tamarisk leaf beetle. W4185: Biological Control in Pest Management Systems of Plants. Borrego Springs, CA. October 4, 2017.
- § Novel solution to an old problem? Adaptation to a transmissible cancer in the Tasmanian Devil. Evolution. Portland, OR. June 2, 2017.
- § Using Genomics to Understand Hybridization and Selection in Biocontrol: The Tamarisk Leaf Beetle as Case Study. The Road to Riparian Restoration: Innovations for Working on Public, Private and Tribal Lands in the Arid West. Grand Junction, CO. February 10, 2016.

§ Using Genomics to Understand Hybridization and Selection in Biocontrol: The Tamarisk Leaf Beetle as Case Study. W3185: Biological Control in Pest Management Systems of Plants. Glenwood Springs, CO. October 5, 2016.

### (e) Poster Presentation

§ From work during PhD work at UI.

§ Prospects in understanding the role of eco-evolutionary dynamics in a range expanding, hybridizing agent, the tamarisk leaf beetle, *Diorhabda* spp. Institute for Bioinformatics and Evolutionary Studies (IBEST) External Advisory Symposium. Moscow, ID. September 21, 2019.

§ Genome-wide assessment of hybridization, admixture, and range expansion in the tamarisk leaf beetle. EVO-WIBO. Townsend State Park, WA. April 14, 2019.

§ Genomic Tools Reveal Hybridization, Admixture, and Differential Establishment Among Introduced Tamarisk Beetle (*Diorhabda* spp.) Source Populations. Tamarisk Coalition Meeting. Grand Junction, CO.

§ Genomic approaches in weed biological control: Diversity in the introduced tamarisk leaf beetle (*Diorhabda* spp.). American Genetics Association. Adapt2Human Symposium. Colorado State University. Fort Collins, CO. July 30, 2016.

§ Genomic approaches in weed biological control: Diversity in the introduced tamarisk leaf beetle (*Diorhabda* spp.). Landscape Genetics Distributed Graduate Symposium. Coeur d'Alene, ID. May 31, 2016.

§ Genomic approaches in weed biological control: Diversity in the introduced tamarisk leaf beetle (*Diorhabda* spp.). Inland Northwest Genomics Resources Symposium. Moscow, ID. May 19, 2016.

Phenology and molecular genetic studies on *Coniatus* spp., a natural, nonnative enemy of the invasive shrub *Tamarix* spp. recently discovered in Colorado. βββ Biological Honors Society National Convention. Erie, PA. June 7, 2014.

Phenology and molecular genetic studies on *Coniatus* spp., a natural, nonnative enemy of the invasive shrub *Tamarix* spp. recently discovered in Colorado. βββ Biological Honors Society West District Convention. Pueblo, CO. April 3, 2014.

Preliminary efforts to monitor hybridization of *Diorhabda* spp. by molecular identification. Tamarisk Coalition Conference. Grand Junction, CO. February 14, 2014.

### (f) Synergistic Activities

- Co-organizer of University of Idaho Carpentries Program. Established partnership with University of Idaho Institute for Modeling and Collaboration and Bioinformatics and Computational Biology to provide teaching experience for graduate students and institutional resources for beginner programming workshops. Organizer, Co-instructor for Software Carpentries. Software Carpentry: Unix, Git, and Python for Novices (BCB 503). 2019-Present.
- Board Member. Randall Women in Science: Inclusion, Diversity, and Equality Alliance. Palouse Outreach Coordinator. 2018-2019
- Instructor. RADseq data Processing. ConGen 2018 and ConGen 2019. Flathead Biological Station, MT.
- Co-mentor for three University of Idaho undergraduate researchers: Carly Scott, Briana Zak, and Fernando Fernandez-Alicea. 2016-2019.
- Teaching Assistant for the online Distributed Graduate Seminar on Landscape Genetics (2018; WLF 561/WLF562) and Cells and Evolution of Life (2017; BIO 115).