

**Joely G. DeSimone**  
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## Professional Positions

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**University of Maryland Center for Environmental Science, Appalachian Laboratory** Frostburg, MD  
• Postdoctoral Researcher 2022-present

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## Education

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**University of Montana** Missoula, MT  
• PhD in Organismal Biology, Ecology, and Evolution 2017-2022  
**Amherst College** Amherst, MA  
• Bachelor of Arts in Biology, *magna cum laude* 2011-2015

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## Additional Research Experience

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• Lab and field technician, Gerson Lab, UMass Amherst 2015-2017  
• Research assistant, Clotfelter Lab, Amherst College 2014-2016

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## Fellowships, Grants, and Awards

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### Fellowships

2017 **NSF Graduate Research Fellowship** (\$138,000)  
2016 **NSF Graduate Research Fellowship** (Honorable Mention)

### Grants

2021 **Drollinger Dial Travel Award** (\$960)  
2020 **MPG Ranch** (\$10,854)  
2019 **MPG Ranch** (\$10,304)  
2019 **Drollinger Dial Travel Award** (\$1,000)  
2019 **American Ornithological Society Hesse Award** (\$1,939)  
2018 **Wilson Ornithological Society Paul A. Stewart Grant** (\$1,000)

### Awards

2021 **Frances F. Roberts Award** for best presentation on any topic in ornithology, given by the American Ornithological Society  
2017 **Drollinger Dial Award**, given to outstanding applicants by the University of Montana's Organismal Biology, Ecology, and Evolution graduate program  
2015 **Oscar E. Schotte Award** for best independent work, given by the Amherst College Biology department  
2015 **James R. Elster Award** to fund summer research, given by the Amherst College Biology department  
2014 **Laura Ayres Snyder Prize** for select poems, given by the Amherst College English department

## Publications

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6. **DeSimone, J.**, Tobalske, B., and Breuner, C. 2021. Physiology and behavior under food limitation support escape, not preparative, response in the nomadic Pine Siskin (*Spinus pinus*). *Journal of Experimental Biology* 224(3).
5. Griego, M., **DeSimone, J.**, Gutierrez Ramirez, M., and Gerson, A. 2021. Aminopeptidase-N modulation assists lean mass anabolism during refueling in the White-throated sparrow. *Proceedings of the Royal Society B* 288(1943).
4. Gerson, A., **DeSimone, J.**, Black, E., Dick, M., Groom, D. 2020. Metabolic suppression after long duration flight is not related to fat-free mass loss or flight duration in a migratory passerine. *Journal of Experimental Biology* 223(19).
3. **DeSimone, J.**, Gutierrez, M., Griego, M., Elowe, C., Breuner, C., and Gerson, A. 2020. Developing a Stopover-CORT hypothesis: corticosterone predicts body composition and refueling rate in Gray Catbirds during migratory stopover. *Hormones and Behavior* 124.
2. Cheng, T., Gerson, A., Moore, M., Reichard, J., **DeSimone, J.**, Willis, C., Frick, W., and Kilpatrick, A. M. 2019. Higher fat stores contribute to persistence of little brown bat populations with white-nose syndrome. *Journal of Animal Ecology* 88(4).
1. **DeSimone, J.**, Clotfelter, E., Black, E., and Knutie, S. 2018. Avoidance, tolerance, and resistance to ectoparasites in nestling and adult tree swallows. *Journal of Avian Biology* 49(2).

### In review

**DeSimone, J.**, Domschot, B., Fylling, M., Blake, W., and Breuner, C. Body mass and triglycerides predict departure of free-living nomadic pine siskins.

Gutierrez Ramirez, M., Griego, M., **DeSimone, J.**, Elowe, C., and Gerson, A. Depleted lean body mass after crossing an ecological barrier differentially affects stopover duration and refueling rate among species of long-distance migratory birds.

## Press

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- “Light as a Feather: Tracking the Migratory Journeys of Individual Songbirds.” 2020. Featured on Montana eBird.
- “Chasing the Chunk: Tracking Fat Loads and Movement in Migratory Songbirds.” 2019. Featured on Montana eBird.

## Conference Presentations

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### Talks

\* Denotes undergraduate mentee

Breuner, C. and **DeSimone, J.** Migratory physiology of the nomadic, irruptive Pine Siskin in

2022

captivity and the field. International Symposium for Avian Endocrinology, Edinburgh, Scotland.

- DeSimone, J.** Migratory physiology of the nomadic Pine Siskin. University of Montana noon seminar series, Missoula MT. 2022
- DeSimone, J.,** Tobalske, B., Fylling, M., Blake, W., Breuner, C. Migratory physiology of the nomadic, irruptive Pine Siskin in captivity and the field. Society for Integrative and Comparative Biology, session for DCE Best Student Presentation Award, virtual conference. 2022
- DeSimone, J.,** Tobalske, B., Fylling, M., Blake, W., Breuner, C. Migratory physiology of the nomadic, irruptive Pine Siskin in captivity and the field. American Ornithological Society and Society of Canadian Ornithologists virtual conference. 2021
- \*Sriraman, S., **DeSimone, J.,** \*Rolls, L., Breuner, C., Greene, E. Understanding the social behavior and public information sharing of an irruptive migrant. University of Montana Conference on Undergraduate Research. Missoula, MT. 2021
- DeSimone, J.** Prepare or escape? Migration physiology of the nomadic pine siskin. University of Montana OBEE noon seminar series. Missoula, MT. 2021
- Gutierrez, M., **DeSimone, J.,** Griego, M., Elowe, C., Gerson, A. Linking movement ecology, body condition, and physiology to better understand stopover ecology along the Gulf Coast. North American Ornithological Society. 2020
- Griego, M. Gutierrez, M., **DeSimone, J.,** Gerson, A. Migratory distance impacts metabolic and refueling rates of neotropical migrants. North American Ornithological Society. 2020
- DeSimone, J.,** Tobalske, B., and Breuner, C. Prepare or escape? The behavioral, physiological, and hormonal responses of a facultative migrant to declining food availability. Society for Integrative and Comparative Biology, Austin, TX 2020
- DeSimone, J.,** Tobalske, B., and Breuner, C. Prepare or escape? The behavioral, physiological, and hormonal responses of a facultative migrant to declining food availability. Wilson Ornithological Society, Cape May, NJ. 2019
- DeSimone, J.** The hormonal regulation of avian migratory behavior. University of Montana OBEE noon seminar series. Missoula, MT. 2019
- Groom, D., Black, E., Deakin, J., **DeSimone, J.,** Lauzau, M., Pedro, B., Straight, C., Unger, K., Miller, M., Gerson, A. The impact of lean mass loss during migratory flight on muscle energetics and contractile properties in the Yellow-Rumped Warbler (*Setophaga coronata*). Integrative Congress of Comparative Physiology and Biochemistry, Ottawa, Canada. 2019
- Groom, D., Black, E., Deakin, J., **DeSimone, J.,** Lauzau, M., Pedro, B., Straight, C., Unger, K., Miller, M., Gerson, A. The impact of lean mass loss during migratory flight on muscle energetics and contractile properties in the Yellow-Rumped Warbler (*Setophaga coronata*). Canadian Society of Zoologists, Windsor, Canada. 2019

## Posters

- Glidden, C., Deakin, J., **DeSimone, J.**, Elowe, C., Groom, D., Slezacek, J., Gerson, A. Assessment of novel biomarkers of kidney function and damage in migratory songbirds after long-duration flight. Society of Integrative and Comparative Biology, Austin, TX. 2020
- DeSimone, J.**, Gutierrez Ramirez, M., Breuner, C., Elowe, C., Griego, M., Gerson, A. Baseline corticosterone and body composition of Gray Catbirds at stopover during spring migration. Society for Integrative and Comparative Biology, Tampa, FL. 2019
- DeSimone, J.**, Gutierrez Ramirez, M., Breuner, C., Elowe, C., Griego, M., Gerson, A. Baseline corticosterone and body composition of Gray Catbirds at stopover during spring migration. International Ornithological Congress, Vancouver, BC. 2018
- Griego, M., **DeSimone, J.**, Gutierrez Ramirez, M., Gerson, A. Aminopeptidase-N modulation assists lean mass anabolism during refueling in the White-throated Sparrow (*Zonotrichia albicollis*). Society for Integrative and Comparative Biology, New Orleans, LA. 2017
- DeSimone, J.**, Clotfelter, E., Black, E. and Knutie, S. Do tree swallows buffer their offspring against ectoparasites? North American Ornithological Conference, Washington, D.C. 2016
- Gutierrez Ramirez, M., **DeSimone, J.**, Griego, M., Gerson, A., Heckscher, C. Refueling performance of spring trans-Gulf migrants and the influence of lean body mass on stopover duration. North American Ornithological Conference, Washington, D.C. 2016
- Griego, M., Gutierrez Ramirez, M., **DeSimone, J.**, Gerson, A. Variation in body composition affects refueling performance and basal metabolic rate in Gray Catbirds (*Dumetella carolinensis*) during migratory stopover. North American Ornithological Conference, Washington, D.C. 2016
- Clotfelter, E., **DeSimone, J.**, Black, E., Runjaic, J. and Knutie, S. Parasite tolerance and resistance in nestling and adult tree swallows. International Society for Behavioral Ecology Conference, Exeter U.K. 2016

## Teaching

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### University of Montana

- Guest Lecture—Comparative Animal Physiology BIOL435—“Stress physiology” 2021
- Guest Lecture—Ornithology BIOC490—“Hormonal control of migration” 2021
- Led first-year graduate student reading group BIOB594 Spring 2020, Spring 2021
- TA—Ornithology BIOC490 Spring 2018
- TA—Principles of Living Systems BIOB161 Fall 2017

## Outreach and Service

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- Graduate Governing Committee Co-President** 2021-2022  
Attend departmental faculty meetings and represent graduate student interests; organize student seminar series; lead GGC meetings and facilitate graduate student community-building

<b>SACNAS</b>	2021-present
Student member of UM's chapter of the Society for Advancement of Chicanos/Hispanics and Native Americans in Science	
<b>Paideia Professional Immersions</b>	2021, 2022
Spoke about research and academia with Paideia High School students interested in STEM careers	
<b>Central Sierra Audubon</b>	2021
Gave an invited presentation about bird migration to local chapter	
<b>UM Allies Training</b>	2021
Attended Allies training that promotes LGBTQ+ equality through education, support, and awareness	
<b>Letters to a Pre-Scientist</b>	2018-2020
Served as a scientist mentor and pen-pal to elementary and high school students from disadvantaged communities in the United States	
<b>Girls n' Bugs Club</b>	2018
Participated in after-school program at Missoula Insectarium as a visiting scientist to help K-5 girls conduct an insect experiment and to provide a model of a female scientist	
<b>Raptor View Research Institute</b>	2018
Organized field trip to RVRI eagle banding site for 15 UM ornithology students to learn about eagle research and conservation	

## Mentored Students

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### Field and lab technicians

Carly Andlauer, Sunny Domschot, Stephanie Klein, Megan Robbins, Lesley Rolls, Josiah Simmons

### Honors thesis student

Sarah Sriraman: "Understanding the benefits of sociality and social information in an irruptive migrant"