Julian Resasco

CV (updated 24 January 2022)
Department of Ecology and Evolutionary Biology (EBIO)

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https://www.colorado.edu/lab/resasco/

APPOINTMENTS AND DEGREES

Assistant Professor

Chancellor's Postdoctoral Fellow

NSF Postdoctoral Fellow

PhD

Biology, University of Colorado, EBIO (2017-2019)

BS

University of Colorado, EBIO (2017-2019)

University of Colorado, EBIO (2013-2017)

Biology, University of Florida (2007-2013)

Zoology, University of Oklahoma (2002-2006)

RESEARCH INTERESTS

Corridors, connectivity, habitat fragmentation, ecological networks, plant-pollinator interactions, ants, entomology, invasion biology, climate change, stable isotopes, landscape ecology, community ecology, evolutionary ecology, ecosystem functions and services, metacommunities, conservation biology

FUNDING AND HONORS

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Pending David and Lucile Packard Foundation Fellowships for Science and Engineering:

Adapting to climate change with corridors (PI: J Resasco; \$875,000)

2021 National Science Foundation: DEB, REPS Supplement: Experimentally testing how

heterogeneity in landscape characteristics and fire severity shape plant assemblages

(PI: J Resasco; \$41,852)

National Science Foundation: DEB 2102974 – Understanding changes in a plant-pollinator network over a century of global change (PI: J Resasco; senior personnel: DP

Vázquez; \$260,059)

National Science Foundation: DGE 2105635 – FIRED UP: An immersive early field experience program to build community, support inclusivity, and foster large-scale research ideas (PI: VJ McKenzie; coPIs: L Corwin, NC Emery, J Resasco, SA Taylor;

\$499,997)

2019 National Science Foundation: Long Term Research in Environmental Biology (LTREB)

- Understanding the strength, duration, and stability of connectivity effects on community diversity (5-year renewal; PIs EI Damschen; coPIs: LA Brudvig, and NM Haddad; senior

personnel: J Resasco and JL Orrock; \$352,728)

National Geographic: Explorer Grant: Consequences of a century of global change on

a plant-pollinator interactions (PI: J Resasco; coPI: DP Vázquez; \$24,139)

Awards and Fellowships

2021 **Ecological Society of America**, Early Career Fellows (2021 – 2025)

2016 University of Colorado, Chancellor's Postdoctoral Fellowship (2 yr. postdoc. support)

Ecological Society of America: Early Career Mentoring Program

2013 University of Florida: Delores Auzenne Dissertation Award (\$15,000)

National Science Foundation: Postdoctoral Research Fellowship in Biology - *A large-scale, experimental test of how habitat fragmentation affects trophic structure, species niches, and extinction risk* (DBI: 1309192, 4 yrs. support,

\$276,000, PI)

2009 **National Science Foundation:** GK-12 Fellowship (1 yr. graduate support,

\$30,000)

2008 National Science Foundation: Graduate Research Fellowship (3 yrs. support,

\$108,000)

2007 National Science Foundation: South East Alliance for Graduate Education and

the Professoriate (SEAGEP) Fellowship (1 yr. graduate support, \$20,000)

Small grants and supplements			
2021	CU-Boulder UROP Team Grant (\$3000; with Anna Paraskevopoulos)		
2020	National Geographic Explorer Grant Supplement (\$1000)		
2019	CU-Boulder UROP Team Grant (\$3000)		
2017	Ecological Society of America SEEDS Minority Ecologist Forum Travel Award (\$1000)		
2017	CU-Boulder Implementation of Multicultural Perspectives and Approaches in Research		
	and Teaching (IMPART) Awards - Diversity and Inclusion Training for Introductory		
	Biology Undergraduate Teaching Assistants (\$4000; with Scott Taylor, Mallory Choudoir,		
	Kendi Davies)		
2018	NSF REU Supplement (\$7000; with Nick Haddad and Melissa Burt)		
2017	NSF REU Supplement (\$7000; with Nick Haddad and Melissa Burt)		
2016	NSF REU Supplement (\$7000; with Nick Haddad and Melissa Burt)		
2016	Ecological Society of America Early-Career Section planning grant (\$5000)		
2016	CU-Boulder UROP Team Grant (\$3000; with Kendi Davies)		
2015	CU Undergraduate Research Opportunities Program (UROP; \$2000)		
2015	CU-Boulder UROP Team Grant (\$3000)		
2014	Gordon Conference Travel Grant (\$1000)		
2012	UF Biology travel award (\$450)		
2012	CLAS travel award (\$300)		
2011	Riewald and Olowo Memorial Fund Research Grant (\$300)		
2010	NSF QSE3 IGERT Research Grant (\$500)		
2009	UF Graduate Student Council travel awards (\$1200)		
2008	NSF REU Supplement (\$7000, additional PIs DJ Levey)		
2007	REU Travel award (\$1000)		

PEER REVIEWED PUBLICATIONS

- 24. **Resasco J**, Chacoff NP, and Vázquez DP (2021) Plant-pollinator interactions between generalists persist over time and space. *Ecology*. 102: e03359.
- 23. Roeder KA, Penuela Useche V, Levey DJ, and **Resasco J** (2021) Testing effects of invasive fire ants and disturbance on ant communities of the longleaf pine ecosystem. *Ecological Entomology*, 46: 964–972.
- Resasco J and Fletcher RJ Jr. (2021) Accounting for connectivity alters the apparent roles of spatial and environmental processes on metacommunity assembly. *Landscape Ecology* 36: 1089–1099.
- 21. CaraDonna PJ, Burkle LA, Schwarz B, Resasco J, Knight T, Benadi G, Blüthgen N, Dormann CF, Fang Q, Fründ J, Gauzens B, Kaiser-Bunbury C, Winfree R, and Vázquez DP (2021). Seeing through the static: the temporal dimension of plant–animal mutualistic interactions. *Ecology Letters* 24: 149–161.
- 20. Prinster AJ, **Resasco J**, and Nufio CR (2020). Weather variation affects the dispersal of grasshoppers beyond their elevational ranges. *Ecology and Evolution* 10: 14411–14422.
- Schwarz B, Vázquez DP, CaraDonna PJ, Knight TM, Benadi G, Dormann CF, Gauzens B, Motivans E, Resasco J, Blüthgen N, Burkle LA, Fang Q, Kaiser-Bunbury CN, Alarcón R, Bain JA, Chacoff NP, Huang S-Q, LeBuhn G, MacLeod M, Petanidou T, Rasmussen C, Simanonok MP, Thompson AH, and Fründ J (2020). Temporal scale-dependence of plant-pollinator networks. Oikos 129 (9): 1271–1439. (Editor's Choice)
- 18. Damschen El, Brudvig LA, Burt MA, Fletcher RJ Jr., Haddad NM, Levey DJ, Orrock JL, **Resasco J**, and Tewksbury JJ (2019). Ongoing accumulation of plant diversity through habitat connectivity in an 18-year experiment. **Science** 365(6460):1478–1480.

- 17. **Resasco J** (2019). Meta-analysis on a decade of testing corridor efficacy: what new have we learned? *Current Landscape Ecology Reports* 4(3): 61–69.
- Resasco J, Bitters ME, Cunningham SA, Jones HI, McKenzie VJ, and Davies KF (2019).
 Experimental habitat fragmentation disrupts nematode infections in Australian skinks. *Ecology*. 100(1): e02547.
- Resasco J, Tuff KT, Cunningham SA, Melbourne BA, Hicks AL, Newsome SD, and Davies KF (2018). Generalist predator's niche shifts reveal ecosystem changes in an experimentally fragmented landscape. *Ecography* 41(7):1209–1219.
- 14. Chacoff NP, **Resasco J**, and Vázquez DP (2018). Interaction frequency, network position, and the temporal persistence of interactions in a plant-pollinator network. *Ecology* 99(1): 21–28.
- 13. Gibb H, Dunn R, Sanders N, Grossman B, Photakis M, Abril S, Agosti D, Andersen A, Angulo E, Armbrecht I, Arnan X; Baccaro F, Bishop T, Boulay R, Brühl C, Castracani C, Cerdá X, Del Toro I, Delsinne T, Diaz M, Donoso D, Ellison A, Enriquez M, Fayle T, Feener Jr. D, Fisher B, Fitzpatrick M, Gómez C, Gotelli N, Gove A, Grasso D, Groc S, Guénard B, Gunawardene N, Heterick B, Hoffmann B, Milan J, Kaspari M, Klimes P, Lach L, Laeger T, Lattke J, Laurent E, Leponce M, Lessard JP, Longino J, Lucky A, Luke S, Majer J, McGlynn T, Menke S, Mezger D, Mori A, Moses J, Thinandavha Caswell M, Pacheco R, Paknia O, Pearce-Duvet J, Pfeiffer M, Philpott S, Resasco J, Retana J, Silva R, Sorger D, Souza J, Suarez A, Tista M, Vasconcelos H, Vonshak M, Weiser M, Yates M, and Parr C. (2017) A global database of ant species abundances. *Ecology*, 98(3): 883–884. (data paper)
- 12. **Resasco J**, Bruna EM, Haddad NM, Banks-Leite C, and Margules CR. (2017) The contribution of theory and experiments to conservation in fragmented landscapes. *Ecography* 40(1): 109–118.
- Brudvig, LA, Leroux SJ, Albert CA, Bruna EM, Davies KF, Ewers RM, Levey DJ, Pardini R, and Resasco J. (2017) Evaluating conceptual models of landscape change. *Ecography* 40(1): 74–84.
- 10. Chandler JL, Orrock JL, and **Resasco J**. (2016) Invasive ants generate heterogeneity in patterns of seed survival. *American Midland Naturalist* 176(2):289-297.
- 9. Jones HI and **Resasco J**. (2016) A new species of *Hedruris* (Nematoda: Hedruridae), from the Australian skink *Lampropholis guichenoti* (Reptilia: Scincidae). *Comparative Parasitology* 83:173-177.
- 8. **Resasco J**, Haddad NM, Shoemaker DD, Orrock JL, Brudvig LA, EI Damschen, Tewksbury JJ, and Levey DJ. (2014) Landscape corridors can increase invasion by an exotic species and reduce diversity of native species. *Ecology* 95:2033–2039.
- Resasco J, Pelini SL, Stuble KL, NJ Sanders, RR Dunn, SE Diamond, AM Ellison, Gotelli NJ, and Levey DJ (2014). Using historical and experimental data to uncover warming temperature effects on ant assemblages. *PLoS ONE* 9(2): e88029.
- Haddad NM, Brudvig LA, Damschen, Evans DM, Johnson BL, Levey DJ, Orrock JL, Resasco J, Sullivan LL, Tewksbury JJ, Wagner SA, and Weldon AJ (2014). Potential negative ecological effects of corridors. *Conservation Biology* 28:1178–1187.
- Resasco J, Porter SD, Sanders NJ, and Levey DJ (2014). Assessing the effects of sodium on fire ant foraging in the field and colony growth in the laboratory. *Ecological Entomology* 39:2 267-271.
- 4. **Resasco J** (2013) Field-based and hands-on ecology labs increase undergraduate interest in the natural world. *Journal of Natural History Education and Experience* 7: 22-25.

- 3. **Resasco J**, Levey DJ, and Damschen EI, (2012) Habitat corridors alter trophic position of fire ants. *Ecosphere* 3, art. 11.
- Callis KL, Christ LR, Resasco J, Armitage DW, Ash JD, Caughlin TT, Clemmensen SF, Copeland SM, Fullman TJ, Lynch RL, Olson C, Pruner RA, Vieira-Neto EHM, West-Singh R, and Bruna EM. (2009) Improving Wikipedia: educational opportunity and professional responsibility. *Trends in Ecology and Evolution* 24: 177-179.
- 1. **Resasco J**, Hale AM, Henry MC, and Gorchov DL (2007) Detecting an invasive shrub in forest understory using remote sensing. *International Journal of Remote Sensing*. 28:3739–3745.

Submitted manuscripts

- 1. Perryman N, Bitters ME, Hicks AL, **Resasco J**, and Davies KF. Experimental habitat fragmentation does not drive trophic downgrading of an invertebrate food web. In revision
- Bitters ME, Meyers J, Resasco J, Sarre SS, Tuff KT, and Davies KF. Experimental habitat fragmentation disrupts host-parasite interaction over decades via persistence thresholds. In review
- 3. Bitters ME, Holtz S, Acruri P, Wilson R, Hicks AL, Resasco J, and Davies KF. The dynamic matrix predicts population response to long-term experimental forest fragmentation. In revision
- 4. Burt M, **Resasco J**, Haddad NM, and Whitehead SR. Ants disperse seeds farther in habitat patches with corridors. In review.

PRESENTATIONS

Invited seminars

2022 University of Florida, Department of Entomology (upcoming)

Bard College (upcoming)

UC Riverside (upcoming)

2021 University of Colorado, Center for Sustainable Landscapes and Communities

Montana State University, Department of Ecology

Smithsonian Environmental Research Center

Utah State University, Ecology Center, Biology Department

University of Illinois, Urbana-Champaign, Department of Entomology

2020 University of Toronto, Mississauga, Department of Biology

University of Wyoming, Department of Botany

Northwestern University/ Chicago Botanic Garden, Plant Biology and Conservation

2019 University of Denver, Department of Biological Sciences

Miami University, Department of Biology (REU program's invited scientist)

University of Colorado, Mountain Research Station

- 2018 University of Colorado, Department of Ecology and Evolutionary Biology
- 2017 Freiburg Institute for Advanced Studies (FRIAS), Freiburg, Germany (working group)
- 2016 University of Michigan, Department of Ecology and Evolutionary Biology University of Colorado Mountain Research Station (REU program)
- 2015 University of Oklahoma, Department of Biology

University of Rhode Island, Department of Biological Sciences

- 2014 CNRS Station d'Ecologie Théorique et Expérimentale, Moulis, France (working group)
- 2011 CONICET IADIZA, Mendoza, Argentina (in Spanish)

Conference presentations

- 2021 International Association for Landscape Ecology North America meeting (upcoming) ‡ Ecological Society of America, virtual meeting (upcoming) *
- 2020 Ecological Society of America, virtual meeting ^{‡, *}
 Colorado Pollinator Summit [‡]
- 2018 Ecological Society of America, New Orleans, LA*

Reunión Argentina de Ecología, Mar del Plata, Argentina (in Spanish) ‡

- 2017 Guild of Rocky Mountain Ecologists and Evolutionary Biologists, MRS, CO* Ecological Society of America, Portland, OR*, ‡
- 2016 Guild of Rocky Mountain Ecologists and Evolutionary Biologists, RMBL, CO*

	Ecological Society of America, Fort Lauderdale, FL*
	International Congress of Entomology, Orlando, FL [‡]
2015	Ecological Society of America, Baltimore, MD [†]
2014	Gordon Research Conference on Predator Prey Interactions, Ventura, CA [†]
	Ecological Society of America, Sacramento, CA [†]
2013	Ecological Society of America, Minneapolis, MN [†]
2012	Entomological Society of America, Knoxville, TN*
	Ecological Society of America, Portland, OR*
2011	Ecological Society of America, Austin, TX*
2010	Ecological Society of America, Pittsburgh, PA [†]
	NSF GK-12 Annual Conference, Washington DC [†]
2009	Southeastern Ecology and Evolution Conference, Gainesville, FL [†]
2007	Ecological Society of America, San Jose, CA [†]

Short courses/ working groups/ workshops

2018 NextProf Science, University of Michigan, USA

* Contributed Talk, † Poster, ‡ Symposium/organized session

- 2017 Temporal Scale in Mutualistic Networks working group, Freiburg Institute for Advanced Studies (FRIAS), Germany
- 2014 Theory and experiments in habitat fragmentation working group, CNRS, Moulis, France
- 2013 Stable Isotopes in Ecology and Biogeochemistry, University of Utah, USA
- Visiting scholar Diego Vázquez lab, CONICET, Mendoza, Argentina Advanced Science School on Ecological Networks, Brazil Conservation & Restoration Genetics, OTS, Costa Rica
- 2010 Ant Course (Cal. Acad. of Science), Sabah (Borneo), Malaysia
- 2006 REU Miami University (advisor Mary Henry)

TEACHING

Instructor

- o University of Colorado, **Spatial Ecology EBIO 4460-5460** (Spring 2020, Fall 2021)
- University of Colorado, Principles of Landscape Ecology (Fall 2018, 2019, 2020; cotaught with Carol Wessman in 2018 and 2019)
- University of Colorado, *Diversity and Inclusion in STEM* (Spring 2017 and 2018, Fall 2017). co-taught with Scott Taylor, Kendi Davies, and Mallory Choudoir (Spring 2017) co-taught with Mallory Choudoir (Fall 2017, Spring 2018)
- University of Colorado, Graduate Seminar in Population Biology (Fall 2015). co-taught with Kendi Davies and Caroline Tucker
- University of Colorado, *General Biology*, Population ecology module three classes, four sections (200-300 students per section; Spring 2014, 2015, 2016, 2017). Developed material and taught using active-learning techniques (e.g., think-pair-share, small group discussion, problem solving with data)

Guest Lecturer

- University of Colorado, Energy Flow in Ecosystems. Principles of Ecology (Fall 2016).
- University of Colorado, Spatial point pattern analysis. Quantitative Biology Seminar (Spring 2015).
- University of Florida, Experimental design and data analysis. STEM Research Methods (Spring 2013)
- o University of Florida, Landscape corridors. Quantitative Wildlife Ecology (Fall 2012).
- o University of Florida, Interaction networks, Community Ecology (Fall 2011).

Teaching Assistant

- o University of Florida, General Ecology Lab (2011-12).
- University of Florida, Natural Areas Teaching Lab (2008)
- o University of Florida, Biological Sciences Lab (2007)

NSF GK-12 fellow

University of Florida and Lincoln Middle School, Life Science (2008-10)

MENTORING

Graduate Students

- Asia Kaiser (PhD)
- Anna Paraskevopoulos (PhD; NSF GRFP)
- Claire Winfrey (PhD; NSF GRFP; co-advised with Noah Fierer)
- Kaitlyn Barthell (BA-MA)
- Andrew Gaier (BA-MA)

Graduate Students Awards and Grants

2021 Asia Kaiser, CU Diversity Recruitment Fellowship

Andrew Gaier, Colorado Native Plant Society, Myrna Steinkamp Memorial Grant, \$1,000

Andrew Gaier, EBIO Research Award, \$1,000

Anna Paraskevopoulos, EBIO Research Award, \$2,175

Anna Paraskevopoulos, Beverly Sears Graduate Student Grant, \$1,000

Anna Paraskevopoulos, City of Boulder Open Space and Mountain Parks, \$2,400

Anna Paraskevopoulos, CU Museum of Natural History, Student Research Award, \$1,100

Claire Winfrey, EBIO Research Award, \$2,200

Kaitlyn Barthell, CanBee Cocktails, student grant, \$1,000

2020 Anna Paraskevopoulos, NSF Graduate Research Fellowship

Claire Winfrey, CU Diversity Recruitment Fellowship

Graduate student committees (EBIO unless otherwise noted; * Masters, † PhD)

Travis McDevitt-Galles (2019-21)[†], Michael Catchen (2019-20)*, Grant Vagle (2019-)[†], Megan Zabinski (2019 -)*[†], Brendan Hobart (2019 -)[†], Aislyn Keyes (2019 -)*, Austin Nash (2019-)*, Jess Mullins (Museum and Field Studies; 2019-21)*, Elias Stallard-Olivera (2021 -)[†], Courtney Van Den elzen (2021 -)[†], Will Cox (2021 -)[†], Sean Streich (2020 -)[†], Katie Williams (2021 -)[†], Scott Nordstrom (2020-)[†], Hannah Miller (ENVS/INSTAAR; 2022 -)[†]

Recent Undergraduate mentees

- Honors: Mairead Brogan (2021–22)
- SMART program: Anabella Miller (2020)
- NSF-REU: Michelle Kirchner (2018), Claire Turkal (2017), Samantha Skerlec (2017), Hector Castillo (2016), De'Aja Sanders (2016), Spencer Holtz (2015), Paulina Arcuri (2015)
- Undergrad. Research Opportunity Program: Claire Stufflebeam (2019), Émily Joy (2018),
 Manuela Mejia (2016 2017), Michaela Trainer (2016-17), Tyrha Delger (2015-16), Tai Kondo (2015-16), Audrey Oweimrin (2015-16), Rachel Ridgen (2015-16)
- Research assistants: Benjamin Overlie (2021), Jacob Unger (2019-20), Andrew Gaier (2019 -20), Matt Bitters (2015), Jasimine Vidrio (2015)
- ESA SEEDS: Hector Castillo (2017), Mary Keilhauer (2016), Eanas Alia (2015), Nicole Boone (2013)

SERVICE AND CAMPUS INVOLVMENT

2022 Niwot Ridge LTER Diversity, Equity, and Inclusion Committee

2019-present CU EBIO Diversity, Equity, and Inclusion Committee

2019, 2021-present CU EBIO Executive Committee

2017-2020 CU-Café member (collective of diverse STEM trainees that promotes inclusivity

and scientific excellence)

2021 CU-Café faculty advisor (with Karen Bailey and Lorne Hough)
2017 SACNAS chapter founding leadership team - postdoc advisor

2016-2018 Office of Postdoctoral Affairs Advisory Board member

2016-17 CU EBIO, <u>Inclusive Excellence</u> Committee

2013-present Contributor to http://www.conservationcorridor.org

2009-2011 NSF I³ Graduate Student Advisory Council

2009 UF Biology Seminar Committee 2008 UF Biology Graduate Forum

PEER REVIEW Editorial boards

Associate Editor: Journal of Animal Ecology (2017 – 2021)

Subject Matter Editor: Ecology and Ecological Monographs (2021 – present)

Journal reviewer: Acta Oecologica, Arctic, Antarctic, and Alpine Research, Austral Entomology (Australian Journal of Entomology), Biological Conservation (3), Biological Invasions (2), Biology Letters, Biotropica (2), Conservation Letters (2), Current Landscape Ecology Reports, Current Opinion in Insect Science, Ecological Applications, Ecological Complexity, Ecography, Ecology, Ecology and Evolution, Ecology Letters (3), Ecosphere, Estuaries and Coasts, Global Change Biology (2), Ibis, Insectes Sociaux, Journal for Nature Conservation, Journal of Arid Environments, Journal of Applied Ecology, Journal of Ecology, Journal of Insect Conservation, Journal of Natural History Education and Experience, Landscape Ecology, Myrmecological News (2), Oecologia (2), Proceedings of the Royal Society B. (2), Restoration Ecology, Scientific Reports.

Funding agency reviewer: National Science Foundation (6 ad hoc, 3 panels).

Misc. reviewer: HHMI BioInteractive (educational material), Springer Publishing (book chapter)

OTHER

Society Memberships

- Ecological Society of America
 - o Early Career Section
 - o Natural History Section
 - o Latin American Chapter
 - o Inclusive Ecology Section
- British Ecological Society
- Asociación Argentina de Ecología
- Society for Conservation Biology
- American Society of Naturalists
- Entomological Society of America
- SACNAS (Society for Advancement of Chicanos/Hispanics and Native Americans in Science)
- US-IALE (International Association for Landscape Ecology)
- Colorado Native Plant Society (Lifetime member)

Hosted seminar speakers

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2022	Becky Irwin (NC State)
2021	Nate Sanders (University of Michigan)
2020	Emilio Bruna (University of Florida)
2019	Sara Bombacci (Colorado State)
2017	Aaron Ellison (Harvard Forest)
2016	Laura Burkle (Montana State University)
2015	Andy Gonzalez (McGill University)
2014	Rob Fletcher (University of Florida)
2009	Rob Dunn (NC State)

Languages

Fluent in Spanish and English

OUTREACH

2016-present

Bilingual volunteer naturalist, City of Boulder Open Space and Mountain Parks – (I lead interpretive hikes and visit classrooms to do ecology programs in Spanish and English for K-12 students).