

Scott W. Yanco

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Education

2016-2021	Ph.D.	University of Colorado Denver Integrative and Systems Biology
2002-2006	B.A.	Colorado College Biology

Relevant Employment

2021-Present	Postdoctoral Associate, Yale University
2010-Present	Owner/ Biologist, ClearPath Environmental, LLC
2020-2021	Research Assistant, University of Colorado Denver
2016-2021	Teaching Assistant, University of Colorado Denver
2004-2015 (seasonal)	Research Assistant, Colorado College Department of Biology
2009-2010	Biologist, Natural Resources Consulting/STANTEC
2007-2009	Biologist, ARCADIS U.S.
2003	Teacher Naturalist, Massachusetts Audubon Society

Refereed Publications (*denotes equal contribution)

- [11] Gábor, L., W. Jetz, A. Zarzo-Arias, K. Winner, **S. Yanco**, S. Pinkert, C. J. Marsh, J. Mäkinen, D. Rocchini, V. Barták, S. Sharma, V. Moudrý. Species distribution models affected by positional uncertainty in species occurrences can still be ecologically interpretable. In press: *Ecography*.
- [10] Contina, A, AK Pierce, **SW Yanco**, ES Bridge, JF Kelly, MB Wunder. 2022. Application of stable isotopes to study movement ecology and diet variation in a migratory songbird. *Journal of Field Ornithology* 93(4):6
- [9] Jetz W, Tertitski G, Kays R, Mueller U, Wikelski M, and Supporting authors [including **SW Yanco**]. 2022. Biological Earth observation with animal sensors. *Trends Ecol. Evol.* 2022;37: 293–298. doi:10.1016/j.tree.2021.11.011
- [8] **Yanco, SW***, AK Pierce*, MB Wunder. 2022. Bioenergetics of seasonality suggests life history diversity in terrestrial animals. *Ecography* 10.1111/ecog.05900.

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- [7] **Yanco, SW**, BD Linkhart, PP Marra, M Mika, M Ciaglo, A Carver, MB Wunder. 2021. Niche dynamics suggest ecological factors influencing migration in an insectivorous owl. *Ecology* 10.1002/ecy.3617
Press Coverage: [National Audubon Society](#)
- [6] Ciaglo, M*, R Calhoun*, **SW Yanco**, C Stricker, M Wunder, B Linkhart. 2020. Evidence of fall prospecting in a long-distance migrant. *Ecology and Evolution* 11: 599-611
- [5] Contina, A, **SW Yanco**, AK Pierce, M DePrenger-Levin, MB Wunder, AM Neophytou, CP Lostroh, BM Benito, J Chipperfield, RB O'Hara, CJ Carlson. 2020. Comment on "A global-scale ecological niche model to predict SARS-CoV-2 coronavirus infection rate", author Coro. *Ecological Modelling* 436: 109288
- [4] **Yanco, SW**, A. McDevitt, C. Trueman, L Hartley, and MB Wunder. 2020. A modern method of multiple working hypotheses to improve inference in ecology. *R. Soc. open sci.* 7200231
- [3] **Yanco, SW** and BD Linkhart. 2018. Changing fire regimes and faunal responses: Post-burn habitat use by Flammulated Owls in Colorado. In: Shuford, WD, Gill, RE Jr., and Handel CM, eds. *Trends and Traditions: Avifaunal Change in Western North America*. Studies of Western Birds 3. Western Field Ornithologists, Camarillo, CA. (invited paper)
- [2] Linkhart, BD, JW Fox, and **SW Yanco**. 2016. Migration timing and routes, and wintering areas of Flammulated Owls. *Journal of Field Ornithology* 87 (1): 42-54.
- [1] Linkhart, BD, EM Evers, JD Megler, EC Palm, CM Salipante, and **SW Yanco**. 2008. First observed instance of polygyny in Flammulated Owls. *Wilson Journal of Ornithology* 120 (3): 645-648.

Preprints and Manuscripts In Review

- Contina, A., **S.W. Yanco**, A.K. Pierce, H.B. Vander Zanden, C.A. Stricker, G.J. Bowen, M.B. Wunder. Dynamic environments generate geographic fluctuations in population structure of an inland shorebird. In review: *Ecology Letters*.
- Parker, T., H. Fraser, S. Nakagawa, E. Gould, S. Griffith, P. Vesik, F. Fidler and 200+ co-authors in alphabetical order, including **S. Yanco**. (Stage 1 Registered Report, passed peer review and granted in-principle acceptance March 2020) Same data, different analysts: variation in effect sizes due to analytical decisions in ecology and evolutionary biology. BMC Biology.
https://springernature.figshare.com/registered-reports_bmcb
- Carello, C and **SW Yanco**. Early successional forests support a unique composition of avian species and are especially important for migratory species. In 3rd review: *Journal of Tropical Ecology*.

Other Publications

- Yanco, SW.** 2022. Small grants like DFO's increase fair access for students to do vital avian research. *Lark Bunting* 58 (1): 22-23.
- Yanco, SW.** 2021. South for the winter: the basics of fall migration. *Colorado Birds* 55 (4): 213-217
- Yanco, SW,** ER Pansing, AK Pierce, MB. Wunder. Better models make for softer landings: A comment on Yeh et al. 2019. *BMJ Rapid Response* to Yeh et al. *BMJ* 2018;363:k5094.
- Michonneau et al. [including **S. Yanco**] 2019. datacarpentry/R-ecology-lesson: Data Carpentry: Data Analysis and Visualization in R for Ecologists, June 2019. doi: [10.5281/zenodo.3264888](https://doi.org/10.5281/zenodo.3264888), <http://datacarpentry.org/R-ecology-lesson/>.
- Yanco, SW** and Pansing, E. 2018. Everything is a model. *Rapid Ecology*. URL: <https://rapidecology.com/2018/09/05/everything-is-a-model/>
- Yanco, SW.** 2018. How a tiny migratory owl can teach us about the changing role of fire in the American west. *The Lark Bunting* 54 (5).

Grants

Thirteen grants awarded, total: \$379,986

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| 2021 | \$83,368 | Documenting post-breeding survival of Kirtland's Warblers to inform a full annual cycle integrated population model
<i>U.S. FWS, Upper Mississippi/Great Lakes Joint Venture</i>
Role: Key Personnel |
| 2020 | \$2,000 | Drivers of flammulated owl movement behaviors in Colorado
<i>Denver Field Ornithologists</i>
Role: PI |
| 2020 | \$1,500 | Ecological drivers of multi-scale movements in a sensitive raptor.
<i>Colorado Field Ornithologists</i>
Role: PI |
| 2019 | \$2,000 | Drivers of flammulated owl movement behaviors in southern Colorado
<i>Denver Field Ornithologists</i>
Role: PI |
| 2019 | \$114,736 | Assessing influences of prescribed fire within the Hot Creek RNA on the demography, movement patterns, and habitat use of Flammulated Owls.
<i>Challenge Cost Share between U.S. Forest Service and Colorado College.</i>
Role: Site manager |

2019	\$1,000	Proximate ecological drivers of habitat selection behavior by a sensitive raptor. <i>Colorado Field Ornithologists</i> Role: PI
2019	\$9,600	Migratory connectivity of Flammulated Owls. <i>Migratory Connectivity Project, Smithsonian Conservation Biology Institute (in-kind valuation)</i> Role: PI
2018	\$1,000	Multi-scale habitat selection behavior by a sensitive raptor following prescribed fire. <i>Colorado Field Ornithologists</i> Role: PI
2018	\$1,500	Multi-scale avian habitat selection: detecting process from pattern. <i>Denver Field Ornithologists</i> Role: PI
2018	\$6,000	Migratory routes and timing of Flammulated Owls. <i>Migratory Connectivity Project, Smithsonian Conservation Biology Institute (in-kind valuation)</i> Role: PI
2017	\$2,100	Spatially dynamic habitat selection in Flammulated Owls. <i>Denver Field Ornithologists</i> Role: PI
2015	\$147,682	Assessing influences of prescribed fire within the Hot Creek RNA on the demography, movement patterns, and habitat use of Flammulated Owls. <i>Challenge Cost Share between U.S. Forest Service and Colorado College.</i> Role: Site manager
2007	\$7,500	Territory size and habitat use by Flammulated Owls in a recently burned Forest <i>U.S. Forest Service</i> Role: Co-investigator

Invited Presentations, Workshops, and Other Lectures

- Yanco, SW.** *Fitness in dynamic environments: movement and the pace of life.* Smithsonian Conservation Biology Institute and National Zoo Invited Seminar. Washington, D.C. 02/07/2023
- Yanco, SW & RY Oliver.** Session Organizer: *Organized Oral Session: An individual eye on a global problem: Unique insights from animal tracking on biodiversity responses to climatic change.* Ecological Society of America Annual Meeting 08/16/2022 Montreal, Quebec, Canada.
- Yanco, SW.** *Dynamic environments, migration, and the pace of life: exploring the causes and consequences of animal movement.* Yale Institute for Biospheric Studies, invited seminar. New Haven, CT (04/08/2022)
- Yanco, SW, BL Linkhart, PP Marra, MB Wunder.** *Niche dynamics and ecological drivers of migration in an insectivorous owl.* Invited oral presentation to symposium: "Making the most of Disparate Data to Map Opportunities for Migratory Bird Conservation" at North American Ornithological Conference VII (virtual) (8/15/2020)
- ❖ *Won A. Brazier Howell award for "best presentation on any topic"*
- Yanco, SW.** *Fire, Snow, and the Red Queen: how Flammulated Owls cope with environmental change.* Colorado Field Ornithologists Virtual Annual Meeting. (07/25/2020)
- Yanco, SW.** *Change is hard: animal movement strategies in variable environments.* University of Colorado, Colorado Springs. (12/9/2019)
- Yanco, SW and A Pierce.** *Introduction to Occupancy Modeling.* Workshop presented at XVII Congreso para el estudio y conservacion de las aves en México. (8/31/2019-9/1/2019)
- Yanco, SW.** 2019. *Flammulated Owl Research at the Hot Creek Research Natural Area.* Presented to the Rio Grande National Forest Leadership Team Meeting. Monte Vista, CO (2/14/2019)
- Yanco, SW.** 2019. *SeminR: Introduction to R.* University of Colorado Denver, Denver, CO. (1/29/2019)

Contributed Presentations (presenting author listed first or denoted by *)

- Oliver, RY[‡], **SW Yanco**^{*‡}, D Ellis-Soto[‡], B Jesmer, W Jetz. *The COVID-19 anthropause reveals mechanisms of human impacts on animal movement.* Contributed oral presentation to the 2022 Ecological Society of America Annual Meeting, Montreal, Quebec, Canada, August 14-19, 2022.
- SW Yanco**[‡], AK Pierce[‡], MB Wunder. *Life history diversity in terrestrial animals is associated with metabolic response to seasonally fluctuating resources.* Contributed poster presentation to Ecology Across Borders, Joint Annual Meeting of the British Ecological Society and the French Society for Ecology and

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- Evolution. December 12-15, Liverpool, UK (virtual). (originally accepted as oral presentation, converted due to COVID-19)
- Carello, C, **SW Yanco***, S Way. *Bird community dynamics across a successional gradient in a tropical wet forest*. Contributed poster presentation to North American Ornithological Conference VII. August 10-15, 2020 (virtual).
- Carello, C, S.Way*, **SW Yanco**. *Neotropical Reforestation & Avian Habitat Selection Dynamics in The Monteverde Reserve Complex, Costa Rica*. Contributed poster presentation to the 26th annual Front Range Student Ecology Symposium, Fort Collins, CO, February 20-21, 2020.
 ❖ *Won best undergraduate poster presentation (presenter: Shane Way).*
- Ciaglo, M, R Calhoun, **SW Yanco**, MB Wunder, C Sticker, BD Linkhart. *Evidence of post-breeding prospecting in a migratory raptor*. Contributed oral presentation to the Raptor Research Foundation Annual Conference, November 5-10, 2019, Fort Collins, CO.
- Yanco, SW**, BD Linkhart, M Micah, A Carver, M Ciaglo, P Marra, MB. Wunder. 2019. *Towards a full annual biogeography of the flammulated owl*. Contributed oral presentation to the Raptor Research Foundation Annual Conference, November 5-10, 2019, Fort Collins, CO.
- Linkhart, BD, **SW Yanco**, J Fox. *Migratory Pathways, Stopover Locations, and Wintering Destinations of Flammulated Owls Breeding in Colorado*. Contributed oral presentation to the 137th state meeting of the American Ornithological Society, Anchorage, AK, June 24-28, 2019.
- Yanco, SW**, A Pierce, MB Wunder. *Using genetic algorithms and agent-based models to explore landscapes and life histories which give rise to migration*. Contributed poster presented at Movement Ecology of Animals Gordon Research Conference. Lucca (Barga), Italy, March 2-8, 2019.
- Pierce, A, **SW Yanco**, MB Wunder. *Simulating animal movement using genetic algorithms and agent-based modeling*. Contributed poster presented at Movement Ecology of Animals Gordon Research Conference. Lucca (Barga), Italy, March 2-8, 2019.
- Yanco, SW**, AL McDevitt, LM Hartley, BD Linkhart, and MB Wunder. *Check yourself: using agent-based models to test the logic of hypotheses*. Contributed oral presentation to 2018 Ecological Society of America Annual Meeting, New Orleans, LA, August 5-10, 2018.
- Yanco, SW**, BD Linkhart, and MB Wunder. *Home-range scale habitat selection patterns do not necessarily imply home-range scale decisions*. Contributed oral presentation to the 136th state meeting of the American Ornithological Society, Tucson, AZ, April 9-14, 2018.
- Yanco, SW**, A McDevitt, L Hartley, and MB Wunder. *Non-inferential approaches to agent-based modeling*. Contributed oral presentation to the 24th annual Front Range Student Ecology Symposium, Fort Collins, CO, February 13-15, 2018.
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Yanco, SW and BD Linkhart. *Scale-dependent habitat selection by a sensitive forest raptor following wildfire*. Contributed oral presentation to the 23rd annual Front Range Student Ecology Symposium, Fort Collins, CO, February 22-23, 2017.

Yanco, SW and BD Linkhart. *Habitat selection by breeding Flammulated Owls in a post-fire environment*. Invited oral presentation to the 39th annual conference of the Western Field Ornithologists, San Diego, CA, October 8-12, 2014.

Yanco, SW and BD Linkhart. *Home-range and habitat use by Flammulated Owls (*Otus flammeolus*) following a large-scale forest fire in central Colorado*. Contributed poster presented at the 130th stated meeting of the American Ornithologists Union, Vancouver, BC, August 14-18, 2012.

Linkhart, BD, **SW Yanco**. *Migration path and wintering area of Flammulated Owls breeding in Colorado*. Contributed oral presentation at the 130th stated meeting of the American Ornithologists Union, Vancouver, BC, August 14-18, 2012.

Yanco, SW, BD Linkhart and RT Reynolds. *Nest habitat characteristics of Flammulated Owls (*Otus flammeolus*) in Colorado*. Contributed oral presentation to the 128th stated meeting of the American Ornithologists Union, San Diego, CA, February 9, 2010.

Yanco, SW and BD Linkhart. 2008. *Nest site selection by Flammulated Owls (*Otus flammeolus*) in a post-fire environment in Colorado*. Contributed poster presented at the 126th Meeting of the American Ornithologists' Union, Portland, OR, August 4-8, 2008.

Software

GitHub: <https://github.com/syanco>

pinpointreadR

R Package: Convenience functions for reading Lotek PinPoint GPS tag data into R. Available at:

<https://github.com/syanco/pinpointreadR>

checkyourself

R Package: Functions to run simple individual-based simulation models in spatial ecology. Available at

<https://github.com/syanco/checkyourself>

Awards and Honors

2021 Max Planck – Yale Center for Biodiversity Movement and Global Change Travel Grant

2021 Outstanding Graduate Defense, Univ. of Colorado Denver, Dept. of Integrative Biology

2021 Outstanding Graduate Student, Univ. of Colorado Denver, Dept. of Integrative Biology.

2020 A. Brazier Howell award from American Ornithological Society for “Best presentation on any topic in ornithology”

2020 Fritz Knopf Doctoral Fellowship in Avian Conservation

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- 2020 Student Dissemination/Travel Award, Univ. of Colorado Denver, Dept. of Integrative Biology
- 2019 Colorado Environmental Management Society Scholarship
- 2019 University of Colorado Denver, Integrative and Systems Biology Merit Scholarship.
- 2019 University of Colorado Denver, College of Liberal Arts and Sciences Student Travel Award
- 2019 University of Colorado Denver, Department of Integrative Biology Student Dissemination/Travel Award
- 2018 University of Colorado Denver, Graduate School Travel Award
- 2018 University of Colorado Denver, College of Liberal Arts and Sciences Student Travel Award
- 2018 American Ornithological Society Student Travel Award
- 2006 Richard and Reba Beidleman Award, Colorado College
Given to a student who has "demonstrated through courses, fieldwork, or other activities, outstanding potential for becoming a professional ecologist and/or field biologist"
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Courses Taught

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| 2022 | Guest Lecturer | Western Connecticut State University |
| | BIO 422 Conservation Biology | |
| 2016-2021 | Teaching Assistant | University of Colorado Denver |
| | BIOL 6764 Biological Data Analysis | |
| | BIOL 3763 Biostatistics | |
| | BIOL 1500 Basic Biology: Cells to Organisms | |
| 2020 | Guest Lecturer | Metropolitan State University of Denver |
| | BIO 4280 Ornithology | |
| 2018 | Guest Lecturer | University of Colorado Denver |
| | BIOL 3763 Biostatistics | |
| | <i>The Central Limit Theorem</i> | |
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Academic Service

Invited Reviewer *eLife, Global Ecology and Biogeography, Frontiers in Ecology and the Environment, PLoSOne, Oecologia, Condor: Ornithological Applications, Journal of Experimental Marine Biology, Journal of Raptor Research, Avian Conservation & Ecology, Ornithology, USGS Colleague Review, Ecological Indicators, Journal of Avian Biology*

Guest Editor *eLife*

Board Member Center for Biodiversity and Global Change Seminar Committee

Panelist “Interacting with your invisible audience”, American Ornithological Society (virtual)

Board Member 2021 Gordon Research Seminar on Movement Ecology of Animals, Program Committee (conference postponed due to COVID-19)

Founder and organizer University of Colorado, Department of Integrative Biology Graduate Student Seminar Series.

Organizer University of Colorado Denver, Department of Integrative Biology Ecology and Evolutionary Biology Journal Club

Representative University of Colorado Denver, Department of Integrative Biology Space and Facilities Use Committee