Eliezer (Elie) Gurarie

curriculum vitae

Assistant Professor of Quantitative Wildlife Ecology
Department of Environmental Biology
SUNY, College of Environmental Science and Forestry

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(last updated May 20, 2025)

Education

2008 **PhD**, *Quantitative Ecology and Resource Management*, University of Washington, Seattle, WA.
- Dissertation: Mathematical models and analysis of animal movements: From individual tracks to mass dispersal

2000 **D.E.A. (equivalent to MS)**, *Environmental Geosciences*, Université d'Aix-Marseille III, Marseille, France.
- Thesis: Inferring the history of an Australian lateritic soil formation from analysis of radioactive cosmogenic nuclides in a quartz stone layer

1998 **B.S./B.A.**, Case Western Reserve University, Cleveland, OH.
- Physics (B.S.), French, German, Comparative Literature (B.A.)

Employment

2021-present **Assistant Professor**, Department of Environmental Biology, SUNY-ESF.

since 2019 **Adjunct faculty**, Department of Forest and Wildlife Ecology, University of Wisconsin, Madison WI.

2014-2021 **Senior research scientist and lecturer**, Department of Biology, University of Maryland, College Park, MD.

since 2010 **Consulting biostatistician**, Finnish Fish and Game Research Institute (RKTL), National Marine Mammal Lab (NMML) NOAA Fisheries, Great Lakes Fisheries Commission (GLFC), Government of Northwest Territories (GNWT), Government of Yukon, Environment and Climate Change Canada.

2013 **Visiting fellow**, Centre of Excellence in Environmental Decisions (CEED), Universities of Melbourne and Queensland, Australia.

2011 - 2015 **Adjunct faculty and lecturer**, Department of Statistics (College of Arts and Sciences), Center for Quantitative Sciences (College of the Environment), affiliate faculty at School of Environmental and Forest Sciences, University of Washington, Seattle, WA.

2008 - 2010 **Post-doctoral fellow**, Metapopulation Research Group, Department of Biosciences, University of Helsinki, Finland.

– Editor –

- 2021-2024: *Frontiers in Ecology and Evolution* - special topic on *Cognitive Movement Ecology.*
- since 2019: *Movement Ecology* - Associate Editor.

Courses

– Full Courses - SUNY-ESF –

Spring 2024 **EFB 798: Special Topics in Quantitative Wildlife Ecology: Cognitive Movement Ecology** .
- Graduate level seminar, novel analysis and development of collaborative manuscript on cognitive foundations of caribou migraitons

Fall 2023 **EFB 798: Practical Seminar in Quantitative Wildlife Ecology**.
- Advanced graduate level seminar on quantitative tools in wildlife and fisheries ecology

Spring 2023 **EFB 798: Techniques and Concepts in Movement and Spatial Ecology**.
- Graduate course on theory, concepts, and application of animal movement analysis and spatio-temporally dependent data

Fall 2022-2024 **EFB 390: Wildlife Ecology and Management**.
- Introductory core course for Wildlife Science majors on wildlife ecology and management

Spring 2022-2024 **EFB 370: Population Ecology and Management**.
- Upper-division course for Conservation Biology and other majors on population ecology, population models, and population genetics (co-taught with Prof. Josh Drew).

– Full Courses - elsewhere –

Winter 2017, 2018 **BIOL709/BSCI339: Data Analysis and Modeling in Ecology and Environmental Life Sciences**, Department of Biology, U. Maryland.
- Applied probability and statistical modeling techniques for graduate students, including advanced regression, mixed models, time-series and spatial analysis, likelihood maximization and Bayesian modeling.

2012-2016 **StatR 101: Introduction to Statistical Analysis with R | StatR 301/503: Advanced R Programming and Graphics**, Professional and Continuing Education, U. Washington.

- Probability theory, statistical analysis, data visualization and advanced graphics, and programming with R. This was a three quarter certificate course for professionals from technical, biomedical, environmental and social research fields. Designed by myself and a co-instructor for UW Professional and Continuing Education in conjunction with the departments of Statistics and Applied Mathematics at UW.

Spring 2012 **QSCI 381: Introduction to Probability and Statistics**, School of the Environment, U. Washington.

- Statistical methods for advanced undergraduates in Environmental Science, Forestry, Fisheries and other Life Science majors.

Fall 2012 **STAT 302: Statistical Software and Its Applications**, Department of Statistics, U. Washington.

- Statistical computation (R and SAS) for upper level statistics majors.

Fall 2011-2013 **STAT 311: Elements of Statistical Methods**, Department of Statistics, U. Washington.

- Large (180 student) service course fulfilling requirements in many majors.

Winter 2017, 2018 **QERM 598: Computational Methods in Quantitative Ecology**, Quantitative Ecology and Resource Management, U. Washington.

- Developed and taught this course specifically for first year graduate students in quantitative ecology.

– Short Courses –

June, 2024 **AniMove 2024**, Max Planck Institute for Animal Behaviour, Radolfzell / Konstanz, Germany.

- Two week intensive course on animal movement, remote sensing and conservation.

May, 2024 **III Movement Ecology Brazil - Movement Ecology Course**, Universidade Federal de Mato Grosso do Sul, Campo Grande, Brazil.

- Week-long intensive course on analysis of animal movement data.

July, 2019 **II Movement Ecology Brazil - Movement Ecology Course**, Universidade Federal de Mato Grosso do Sul, Campo Grande, Brazil.

- One of four instructors leading an intensive movement ecology course and analysis workshop.

July, 2019 **Modern Tools in Conservation and Movement Analysis**, Society for International Congress of Conservation Biology (ICCB-2017), Cartagena, Colombia.

- Intensive workshop on analysis of animal movement data.

August, 2016 **Animal Movement Analysis**, NOAA-Fisheries, Auke Bay, Juneau, Alaska .

- Intensive workshop on analysis of animal movement data.

April, 2014 **AniMove 2014**, Smithsonian Conservation Biology Institute, Front Royal, VA.

- One of six instructors in a two week intensive course on animal movement, remote sensing and conservation.

April, 2012 **Mathematical Modeling of Spatial Processes in Ecology**, University of St. Petersburg, St. Petersburg, Russia.
- 1 week intensive course in advanced topics in spatial ecology

April, 2011 **Analyzing Wildlife Count Data With R**, Severtsov Institute of Ecology and Evolution, Moscow, Russia.
- 1 week intensive course in estimating abundances

2008 - 2010 **Short courses**, University of Helsinki, Finland.
- on computational methods, linear algebra in ecology, and movement modeling for the Metapopulation Research Group.

– Mentoring and Training –

1. **Supervisor at SUNY-ESF:**

name	degree	position	start date
Ophélie Couriot	PhD	post-doctoral fellow	spring 2022
Nicole Barbour	PhD	post-doctoral fellow	fall 2023
Anna Brose	MS	program / communications manager	spring 2022

2. **Major professor:**

name	degree	start	graduated
Katya Khadonova	MS	fall 2022	spring 2024
Chloe Beaupré	PhD	fall 2022	-
Megan Perra	PhD	fall 2022	-
Sydney Opel	MS	spring 2023	-

3. **Serving on thesis committee or examiner:**

At SUNY-ESF:

Student	MP	Degree	Graduation	Role
Andrew Parnas	John Farrell	MS	2024	member
Riley Stedman	M Schummer	MS	2024	member
Hunter Collins	M Schummer	MS	2024	examiner
Manoon Pliosungnoen	J Gibbs	PhD	2023	examiner
Stephanie Cunningham	J Frair	PhD	2023	examiner
Sam Gordon	C Beier (SRM)	MS	2024	chair
Mabadeje Demu	L Teron (EST)	PhD	2022	chair

Elsewhere:

Student	Supervisor	Degree	Graduation	Institution
Vickie de Nicola	F Cagnacci	PhD	current	Università di Trento, Italy
Marron McConnell	W Fagan	PhD	current	University of Maryland, College Park
Marina Favarini		PhD	current	Universidade Federal do Rio Grande do Sul, Brazil
Victor Chauveau	A Loison	PhD	2025	Université des Alpes, France
Amélie Dolfi	W Turner	PhD	2024	University of Wisconsin, Madison
YenHua Huang	W Turner	PhD	2022	University of Wisconsin, Madison
Nina Attias	G Oliveira	PhD	2019	Universidade Federal de Mato Grosse do Sul, Brazil

4. **de facto mentor:**

name	degree	attained	institution
Nicole Barbour	PhD	2023	University of Maryland, College Park
Megan Morrison	MS	2022	University of Wisconsin, Madison
Edward Hurme	PhD	2020	University of Maryland, College Park
Farid Cheraghi	PhD	2019	University of Tehran, Iran
Trevor Meckley	PhD	2016	Michigan State University
Irina Trukhanova	PhD	2016	St.Petersburg State University, Russia
Chloe Bracis	PhD	2014	University of Washington, Seattle

5. **Undergraduate research assistants:**

SUNY-ESF:	Zoe Hateya-Mercer	
	Suika Sono-Knowles	
	Thomas Fernandez	
	Melody Espinoza	
	Jaylen Earls	
	Celebrity Wright	
	Gabriella Pereira	
	Katleen Gonzalez-Legra	
	Megan Cheshire	
	Sam Lasher	
U. of Maryland:	Emma Grier*	(B.S. 2020)
	Peter Thompson*, Chuyi Yang	(B.S. 2019)
	Meghan Chulok, Xiner Ning, Ashley Eskalis	(B.S. 2018)
	Tim Barry*, Jessica MacGregor	(B.S. 2017)

$\star$ – *published co-authors*

Publications

75 published | 5056 Citations | h-index 35
Impact Factors (*IF*) compiled from Clarivate JCR
italics indicate mentees (undergraduate, graduate, and post-doctoral)
underlining indicates current student at SUNY-ESF

– IN REVIEW OR REVISION –

1. *C Beaupré*, K Joly, M Cameron, O Couriot, W Fagan, **E Gurarie** (*in review*) Winter survival positively associated with forage abundance for a long-distance migratory ungulate. *Polar Biology*.
2. W Fagan, A Krishnan, C Fleming, E Sharkey, S Chia, A Swain, B Abrahms, C Bracis, **E Gurarie**, ... (others), ... J Calabrese (*in review*) Wild canids and felids differ in memory-related use of travel routes. *PNAS*.
3. *O Couriot*, **E Gurarie**, O Cosby, M Leblond, M Campbell (*in revision*) What is a calving ground? Matching modern tools with ecological definitions. *Journal of Wildlife Management*.
4. B Niebuhr, SMC Cavalcanti, AEA Vilalba, VV Alberico, J Gebin, D Santos, A Barban, R de Oliveira, **E. Gurarie**, R Morato. (*in review*) Puma space use and dispersal in tropical biodiversity hotspots: bridging a gap to connect individuals to populations. *Biological Conservation*; preprint: `https://doi.org/10.32942/X2XK64`.
5. *B Larue*, A Roberto-Charron, A Dumond, J Adamczewski, R Winter, E Hedlin, M Perra, A Gunn, **E Gurarie**, Hebblewhite M (*in review*). Predators at the nursery: Grizzly bears may limit calf survival in a declining caribou herd. *Biological Conservation*.
6. A Giroux, D Valle, M Vieira, J Forester, **E Gurarie**, ... *others* ..., l Oliviera-Santos. (*in review*). Sex drives intraspecific scaling of home range size in mammals. *Ecology Letters*.

– 2024 –

1. *Barbour N*, Bright J, Hervert J, **Gurarie E**, Doerries S, Alvidrez A, Goodwin R, Su S, Lehmuth S, Black C, Fleming C, Fagan W (2024). "Seasonality in Sonoran pronghorn (Antilocapra americana sonoriensis) survival and movement within a managed rangeland." *Journal of Wildlife Management*, (*IF: 2.4*).
2. *Morrison M*, Cohen J, **Gurarie E**, Van Deelen T (2024). "Environmental drivers and fitness consequences of partial migration under climate change." *Journal of Fish and Wildlife Management*, (*IF: 1*).
3. Brose A, Perra M, Gunn A, **Gurarie E** (2024). "Fate of the Caribou: Studying caribou and climate, with communities." *Xàgots'eèhk' Journal*, *2*(2), (*IF:*).
4. Fagan WF, Krishnan A, Liao Q, Fleming CH, Liao D, Lamb C, Patterson B, Wheeldon T, Martinez-Garcia R, Menezes JFS, Noonan MJ, **Gurarie E**, Calabrese JM (2024). "Intraspecific encounters can lead to reduced range overlap." *Movement Ecology*, *12*(1), 58 (*IF: 4.1*).
5. **Gurarie E**, Avgar T (2024). "Editorial: Cognitive Movement Ecology." *Frontiers in Ecology and Evolution*, *12*, (*IF: 3*).
6. **Gurarie E**, Beaupré C, *Couriot O*, Cameron M, Fagan W, Joly K (2024). "Evidence for an adaptive, large-scale range shift in a longdistance terrestrial migrant." *Global Change Biology*, (*IF: 10.8*).
7. Matias MT, Ramage JM, **Gurarie E**, Brodzik MJ (2024). "Snowmelt Onset and Caribou (Rangifer tarandus) Spring Migration." *Remote Sensing*, *16*(13), (*IF: 5.8*).

– 2023 –

1. *Barbour N*, Shillinger G, **Gurarie E**, Hoover A, Gaspar P, TempleBoyer J, Candela T, Fagan

W, Bailey H (2023). "Incorporating multidimensional behavior into a risk management tool for a critically endangered and migratory species." *Conservation Biology*, *37*(5), (*IF: 6.3*).
2. *Couriot O*, Cameron MD, Joly K, Adamczewski J, Campbell MW, Davison T, Gunn A, Kelly AP, Leblond M, Williams J, Fagan WF, Brose A, Gurarie E (2023). "Continental synchrony and local responses: Climatic effects on spatiotemporal patterns of calving in a social ungulate." *Ecosphere*, *14*(1), (*IF: 2.7*).

– 2022 –

1. Fagan WF, Saborio C, Hoffman TD, **Gurarie E**, Cantrell RS, Cosner C (2022). "What's in a Resource Gradient? Comparing Alternative Cues for Foraging in Dynamic Environments via Movement, Perception, and Memory." *Theoretical Ecology*, *15*(3), 267-282 (*IF: 1.6*).
2. **Gurarie E**, *Bracis C*, *Brilliantova A*, Kojola I, Suutarinen J, Ovaskainen O, *Potluri S*, Fagan W (2022). "Spatial Memory Drives Foraging Strategies of Wolves, but in Highly Individual Ways." *Frontiers in Ecology and Evolution*, (*IF: 3*).

– 2021 –

1. Joly K, Gunn A, Côté SD, Panzacchi M, Adamczewski J, Suitor MJ, **Gurarie E** (2021). "Caribou and Reindeer Migrations in the Changing Arctic." *Animal Migration*, *8*(1), 156-167 (*IF: NA*).
2. Joly K, **Gurarie E**, Hansen D, Cameron M (2021). "Seasonal Patterns of Spatial Fidelity and Temporal Consistency in the Distribution and Movements of a Migratory Ungulate." *Ecology and Evolution*, (*IF: 2.6*).
3. Kauffman M, Cagnacci F, Chamaillé-Jammes S, ..., **Gurarie E** (2021). "Mapping out a Future for Ungulate Migrations." *Science*, *372*(6542), 566-569 (*IF: 56.9*).
4. Lewis M, Fagan W, Auger-Méthé M, Frair J, Fryxell J, Gros C, Gurarie E, Healy S, Merkle J (2021). "Learning and Animal Movement." *Frontiers in Ecology and Evolution*, (*IF: 3*).
5. del Mar Delgado M, Roslin T, Tikhonov G, Meyke E, Lo C, **Gurarie E**, ..., Ovaskainen O (2021). "Differences in Spatial versus Temporal Reaction Norms for Spring and Autumn Phenological Events." *Proceedings of the National Academy of Sciences*, *117*(49), 31249-31258 (*IF: 11.1*).
6. Roslin T, Antão L, Hällfors M, Meyke E, Lo C, Tikhonov G, Delgado M, **Gurarie E**, ..., Ovaskainen O (2021). "Abiotic Change, Consumers and Producers Slide Apart as Springs Shift Earlier and Autumns Later." *Nature Climate Change*, (*IF: 30.7*).

– 2020 –

1. *Attias N*, **Gurarie E**, Fagan W, Mourão G (2020). "Ecology and Social Biology of the Southern Three-Banded Armadillo (*Tolypeutes matacus*; Cingulata: Chlamyphoridae)." *Journal of Mammalogy*, (*IF: 1.7*).
2. *Barry T*, **Gurarie E**, *F Cheraghi*, Kojola I, Fagan W (2020). "Does Dispersal Make the Heart Grow Bolder? Avoidance of Anthropogenic Habitat Elements across Wolf Life History." *Animal Behaviour*, *166*, 219-231 (*IF: 2.5*).

3. Casas F, **Gurarie E**, Fagan W, Mainali K, Santiago R, Hervás I, Palacín C, Moreno E, Viñuela J (2020). "Are Trellis Vineyards Avoided? Examining How Vineyard Types Affect the Distribution of Great Bustards." *Agriculture, Ecosystems and Environment*, *289*, (*IF: 6.6*).
4. Davidson S, Bohrer G, **Gurarie E**, ..., *E Grier*, *O Couriot*, ..., Hebblewhite M (2020). "Ecological Insights from Three Decades of Animal Movement Tracking across a Changing Arctic." *Science*, *370*(6517), 712-715 (*IF: 56.9*).
5. Delgado M, Roslin T, Tikhonov G, Meyke E, Lo C, **Gurarie E**, ..., Ovaskainen O (2020). "Differences in Spatial versus Temporal Reaction Norms for Spring and Autumn Phenological Events." *Proceedings of the National Academy of Sciences*, (*IF: 11.1*).
6. Fagan W, **Gurarie E** (2020). "Spatial Ecology: Herbivores and Green Waves—To Surf or Hang Loose?" *Current Biology*, *30*(17), R991-R993 (*IF: 9.2*).
7. **Gurarie E**, *Thompson PR*, Kelly A, Larter N, Fagan W, Joly K (2020). "For Everything There Is a Season: Analysing Periodic Mortality Patterns with the Cyclomort R Package." *Methods in Ecology and Evolution*, *11*(1), 129-138 (*IF: 6.6*).
8. Joly K, Couriot O, Cameron M, **Gurarie E** (2020). "Behavioral, Physiological, Demographic and Ecological Impacts of Hematophagous and Endoparasitic Insects on an Arctic Ungulate." *Toxins*, *12*(5), 334 (*IF: 4.2*).
9. Joly K, **Gurarie E**, Sorum M, Kaczensky P, Cameron M, Jakes A, Borg B, Nandintsetseg D, Hopcraft J, Buuveibaatar B, Jones P (2020). "Longest Terrestrial Migrations and Movements around the World." *Scientific Reports*, *9*(15333), (*IF: 4.6*).
10. Mainali K, Shrestha B, Sharma R, Adhikari A, **Gurarie E**, Singer M, Parmesan C (2020). "Contrasting Responses to Climate Change at Himalayan Treelines Revealed by Population Demographics of Two Dominant Species." *Ecology and Evolution*, *10*(3), 1209-1222 (*IF: 2.6*).
11. Oliver R, Mahoney P, **Gurarie E**, Krikun N, Weeks B, Hebblewhite M, Liston G, Boelman N (2020). "Behavioral Responses to Spring Snow Conditions Contribute to Long-Term Shift in Migration Phenology in American Robins." *Environmental Research Letters*, *15*(4), (*IF: 6.7*).
12. Ovaskainen O, Meyke E, Lo C, Tikhonov G, del Mar Delgado M, Roslin T, **Gurarie E**, Abadonova M, Abduraimov O, Adrianova O, others (2020). "Chronicles of Nature Calendar, a Long-Term and Large-Scale Multitaxon Database on Phenology." *Scientific Data*, (*IF: 9.8*).
13. Penteriani V, Zarzo-Arias A, del Mar Delgado M, Dalerum F, Gurarie E, Torre P, Corominas T, Vázquez V, García P, Ordiz A (2020). "Female Brown Bears Use Areas with Infanticide Risk in a Spatially Confined Population." *Ursus*, *2020*(31e2), 1 (*IF: 1.3*).

– 2019 –

1. *Cheraghi F*, Delavar M, Amiraslani F, Alavipanah K, **Gurarie E**, Jowkar H, Hunter L, Ostrowski S, Fagan W (2019). "Inter-Dependent Movements of Asiatic Cheetahs *Acinonyx jubatus* Venaticus and a Persian Leopard Panthera Pardus Saxicolor in a Desert Environment in Iran." *Zoology in the Middle East*, *65*(4), 283-292 (*IF: 0.7*).
2. *E Hurme*, **Gurarie E**, Greif S, Flores-Martínez J, Wilkinson G, Yovel Y (2019). "Acoustic Evaluation of Behavioral States Predicted from GPS Tracking: A Case Study of a Marine Fishing Bat." *Movement Ecology*, *7*(1), (*IF: 4.1*).

3. Bewick S, **Gurarie E**, Weissman J, Beattie J, Davati C, Flint R, Thielen P, Breitwieser F, Karig D, Fagan W (2019). "Trait-Based Analysis of the Human Skin Microbiome." *Microbiome*, *7*(1), (*IF: 15.5*).
4. Boelman N, Liston G, **Gurarie E**, Meddens A, Mahoney P, Kirchner P, Bohrer G, Brinkman T, Cosgrove C, Eitel J, Hebblewhite M (2019). "Integrating Snow Science and Wildlife Ecology in Arctic-boreal North America." *Environmental Research Letters*, *14*(1), 010401 (*IF: 6.7*).
5. Fagan W, Hoffman T, Dahiya D, **Gurarie E**, Cantrell R, Cosner C (2019). "Improved Foraging by Switching between Diffusion and Advection: Benefits from Movement That Depends on Spatial Context." *Theoretical Ecology*, *13*(2), 127-136 (*IF: 1.6*).
6. **Gurarie E**, Hebblewhite M, Joly K, Kelly A, Adamczewski J, Davidson S, Davison T, Gunn A, Suitor M, Fagan W, Boelman N (2019). "Tactical Departures and Strategic Arrivals: Divergent Effects of Climate and Weather on Caribou Spring Migrations." *Ecosphere*, *10*(12), (*IF: 2.7*).
7. He K, Dai Q, Foss-Grant A, **Gurarie E**, Fagan W, Lewis M, Qing J, Huang F, Yang X, Gu X, Huang Y, Zhang H, Li D, Zhou X, Yang Z (2019). "Movement and Activity of Reintroduced Giant Pandas." *Ursus*, *29*(2), 163 (*IF: 1.3*).
8. Joly K, **Gurarie E**, Sorum M, Kaczensky P, Cameron M, Jakes A, Borg B, Nandintsetseg D, Hopcraft G, Buuveibaatar B, Jones P, Mueller T, Walzer C, Olson K, Payne J, Yadamsuren A, Hebblewhite M (2019). "Longest Terrestrial Migrations and Movements around the World." *Scientific Reports*, *9*(1), (*IF: 4.6*).
9. Noonan M, Fleming C, Akre T, Drescher-Lehman J, **Gurarie E**, Harrison A, Kays R, Calabrese J (2019). "Scale-Insensitive Estimation of Speed and Distance Traveled from Animal Tracking Data." *Movement Ecology*, *7*(1), (*IF: 4.1*).
10. Udell B, Martin J, Fletcher Jr R, Bonneau M, Edwards H, Gowan T, Hardy S, **Gurarie E**, Calleson C, Deutsch C (2019). "Integrating Encounter Theory with Decision Analysis to Evaluate Collision Risk and Determine Optimal Protection Zones for Wildlife." *Journal of Applied Ecology*, *56*(5), 1050-1062 (*IF: 5.7*).

– 2018 –

1. *Bracis, C*, **Gurarie E**, Rutter J, Goodwin R (2018). "Remembering the Good and the Bad: Memory-Based Mediation of the Food–Safety Trade-off in Dynamic Landscapes." *Theoretical Ecology*, *11*(3), 305-319 (*IF: 1.6*).
2. *F Cheraghi*, Delavar M, Amiraslani F, Alavipanah S, **Gurarie E**, Fagan W (2018). "Statistical Analysis of Asiatic Cheetah Movement and Its Spatio-Temporal Drivers." *Journal of Arid Environments*, *151*, 141-145 (*IF: 2.7*).
3. Delgado M, Miranda M, Alvarez S, **Gurarie E**, Fagan W, Penteriani V, di Virgilio A, Morales J (2018). "The Importance of Individual Variation in the Dynamics of Animal Collective Movements." *Philosophical Transactions of the Royal Society B: Biological Sciences*, *373*(1746), 20170008 (*IF: 6.3*).
4. Mahoney P, Liston G, LaPoint S, **Gurarie E**, Mangipane B, Wells A, Brinkman T, Eitel J, Hebblewhite M, Nolin A, Boelman N (2018). "Navigating Snowscapes: Scale-dependent Responses of Mountain Sheep to Snowpack Properties." *Ecological Applications*, *28*(7), 1715-1729 (*IF: 5*).
5. Tucker M, Böhning-Gaese K, Fagan W, Fryxell J, Van Moorter B, ..., **Gurarie E**, ...

(2018). "Moving in the Anthropocene: Global Reductions in Terrestrial Mammalian Movements." *Science*, *359*(6374), 466-469 (*IF: 56.9*).

– 2017 –

1. *TD Meckley*, **Gurarie E**, Miller J, Wagner C (2017). "How Fishes Find the Shore: Evidence for Orientation to Bathymetry from the Non-Homing Sea Lamprey." *Canadian Journal of Fisheries and Aquatic Sciences*, *74*(12), 2045-2058 (*IF: 2.4*).
2. Fagan W, **Gurarie E**, Bewick S, Howard A, Cantrell R, Cosner C (2017). "Perceptual Ranges, Information Gathering, and Foraging Success in Dynamic Landscapes." *The American Naturalist*, *189*(5), 474-489 (*IF: 2.9*).
3. Fleming C, Sheldon D, **Gurarie E**, Fagan W, LaPoint S, Calabrese J (2017). "Kálmán Filters for Continuous-Time Movement Models." *Ecological Informatics*, *40*, 8-21 (*IF: 5.1*).
4. **Gurarie E**, Bengtson J, Bester M, Blix A, Cameron M, Bornemann H, Nordøy E, Plötz J, Steinhage D, Boveng P (2017). "Distribution, Density and Abundance of Antarctic Ice Seals off Queen Maud Land and the Eastern Weddell Sea." *Polar Biology*, *40*(5), 1149-1165 (*IF: 1.7*).
5. **Gurarie E**, Cagnacci F, Peters W, Fleming C, Calabrese J, Mueller T, Fagan M (2017). "A Framework for Modelling Range Shifts and Migrations: Asking When, Whither, Whether and Will It Return." *Journal of Animal Ecology*, *86*(4), 943-959 (*IF: 4.8*).
6. **Gurarie E**, Fleming C, Fagan W, Laidre K, Hernández-Pliego J, Ovaskainen O (2017). "Correlated Velocity Models as a Fundamental Unit of Animal Movement: Synthesis and Applications." *Movement Ecology*, *5*(1), (*IF: 4.1*).

– 2016 –

1. Beyer H, **Gurarie E**, Börger L, Panzacchi M, Basille M, Herfindal I, Van Moorter B, Lele S, Matthiopoulos J (2016). " 'You Shall Not Pass!': Quantifying Barrier Permeability and Proximity Avoidance by Animals." *Journal of Animal Ecology*, *85*(1), 43-53 (*IF: 4.8*).
2. Cagnacci F, Focardi S, Ghisla A, Van Moorter B, Merrill E, Gurarie E, Heurich M, Mysterud A, Linnell J, Panzacchi M, May R (2016). "How Many Routes Lead to Migration? Comparison of Methods to Assess and Characterize Migratory Movements." *Journal of Animal Ecology*, *85*(1), 54-68 (*IF: 4.8*).
3. Calabrese J, Fleming C, **Gurarie E** (2016). "Ctmm: An R Package for Analyzing Animal Relocation Data as a Continuous-time Stochastic Process." *Methods in Ecology and Evolution*, *7*(9), 1124-1132 (*IF: 6.6*).
4. **Gurarie E**, Bracis C, Delgado M, Meckley T, Kojola I, Wagner C (2016). "What Is the Animal Doing? Tools for Exploring Behavioural Structure in Animal Movements." *Journal of Animal Ecology*, *85*(1), 69-84 (*IF: 4.8*).
5. Kojola I, Hallikainen V, Mikkola K, **Gurarie E**, Heikkinen S, Kaartinen S, Nikula A, Nivala V (2016). "Wolf Visitations Close to Human Residences in Finland: The Role of Age, Residence Density, and Time of Day." *Biological Conservation*, *198*, 9-14 (*IF: 5.9*).
6. Martin J, Sabatier Q, Gowan T, Giraud C, **Gurarie E**, Calleson C, Ortega-Ortiz J, Deutsch C, Rycyk A, Koslovsky S (2016). "A Quantitative Framework for Investigating Risk of Deadly Collisions between Marine Wildlife and Boats." *Methods in Ecology and Evolution*, *7*(1), 42-50 (*IF: 6.6*).

– 2014-2015 –

1. *C Bracis*, **Gurarie E**, Van Moorter B, Goodwin R (2015). "Memory Effects on Movement Behavior in Animal Foraging." *PLOS ONE*, *10*(8), e0136057 (*IF: 3.7*).
2. Altukhov A, Andrews R, Calkins D, Gelatt T, **Gurarie E**, Loughlin T, Mamaev E, Nikulin V, Permyakov P, Ryazanov S, Vertyankin V (2015). "Age Specific Survival Rates of Steller Sea Lions at Rookeries with Divergent Population Trends in the Russian Far East." *PLOS ONE*, *10*(5), e0127292 (*IF: 3.7*).
3. Delgado M, Penteriani V, Morales J, **Gurarie E**, Ovaskainen O (2014). "A Statistical Framework for Inferring the Influence of Conspecifics on Movement Behaviour." *Methods in Ecology and Evolution*, *5*(2), 183-189 (*IF: 6.6*).
4. Meckley T, Wagner C, **Gurarie E** (2014). "Coastal Movements of Migrating Sea Lamprey (Petromyzon Marinus) in Response to a Partial Pheromone Added to River Water: Implications for Management of Invasive Populations." *Canadian Journal of Fisheries and Aquatic Sciences*, *71*(4), 533-544 (*IF: 2.4*).

– 2011-2013 –

1. *IS Trukhanova*, **Gurarie E**, Sagitov R (2013). "Distribution of Hauled-out Ladoga Ringed Seals (*Pusa hispida ladogensis*) in Spring 2012." *Arctic*, *66*(4), (*IF: 1.2*).
2. Anderson J, **Gurarie E**, Bracis C, Burke B, Laidre K (2013). "Modeling Climate Change Impacts on Phenology and Population Dynamics of Migratory Marine Species." *Ecological Modelling*, *264*, 83-97 (*IF: 3.1*).
3. **Gurarie E**, Ovaskainen O (2013). "Towards a General Formalization of Encounter Rates in Ecology." *Theoretical Ecology*, *6*(2), 189-202 (*IF: 1.6*).
4. Laidre K, Born E, **Gurarie E**, Wiig O, Dietz R, Stern H (2013). "Females Roam While Males Patrol." *Philosophical Transactions of the Royal Society B: Biological Sciences*, *280*(1752), 20122371 (*IF: 6.3*).
5. Burkanov V, **Gurarie E**, Altukhov A, Mamaev E, Permyakov P, Trukhin A, Waite J, Gelatt T (2011). "Environmental and Biological Factors Influencing Maternal Attendance Patterns of Steller Sea Lions (*Eumetopias jubatus*) in Russia." *Journal of Mammalogy*, *92*(2), 352-366 (*IF: 1.7*).
6. **Gurarie E**, Grünbaum D, Nishizaki M (2011). "Estimating 3D Movements from 2D Observations Using a Continuous Model of Helical Swimming." *Bulletin of Mathematical Biology*, *73*(6), 1358-1377 (*IF: 3.5*).
7. **Gurarie E**, Ovaskainen O (2011). "Characteristic Spatial and Temporal Scales Unify Models of Animal Movement." *The American Naturalist*, *178*(1), 113-123 (*IF: 2.9*).
8. **Gurarie E**, Suutarinen J, Kojola I, Ovaskainen O (2011). "Summer Movements, Predation and Habitat Use of Wolves in Human Modified Boreal Forests." *Oecologia*, *165*(4), 891-903 (*IF: 2.7*).

– PRE-2011 –

1. **Gurarie E**, Anderson J, Zabel R (2009). "Continuous Models of Population-level Heterogeneity Inform Analysis of Animal Dispersal and Migration." *Ecology*, *90*(8), 2233-2242 (*IF: 4.8*).

2. **Gurarie E**, Andrews R, Laidre K (2009). "A Novel Method for Identifying Behavioural Changes in Animal Movement Data." *Ecology Letters*, *12*(5), 395-408 (*IF: 8.8*).
3. Laidre K, Jameson R, **Gurarie E**, Jeffries S, Allen H (2009). "Spatial Habitat Use Patterns of Sea Otters in Coastal Washington." *Journal of Mammalogy*, *90*(4), 906-917 (*IF: 1.7*).
4. Anderson J, **Gurarie E**, Zabel R (2005). "Mean Free-Path Length Theory of Predator–Prey Interactions: Application to Juvenile Salmon Migration." *Ecological Modelling*, *186*(2), 196-211 (*IF: 3.1*).
5. Wang X, Li J, **Gurarie E**, Fan S, Kyu T, Neubert M, Keast S, ... (1998). "Kinetics of Phase Transition in an Anticlinic Liquid Crystal Induced by a Uniform Temperature Field: Growth in One Dimension." *Physical review letters*, (*IF: 8.6*).

– Non peer-reviewed publications –

Reports for government and NGO's

1. *Couriot, O.* and **Gurarie, E.** 2023. Identifying barren-ground caribou calving seasons and calving grounds from telemetry data: A step by step guide. Report submitted to the Government of Northwest Territories. Available on: `https://ocouriot.github.io/IdentifyingCalvingGrounds.html`.
2. **Gurarie, E**, A Gunn, *O Couriot*, A Guile. (2023). Winter range overlaps between the Bluenose East, Bathurst and Beverly/Ahiak migratory tundra caribou herds. Technical report for: Wek'èezhì Renewable Resources Board, Yellowknife, NT, Canada.
3. **Gurarie, E**, M Hebblewhite. (2019) Porcupine caribou in the Yukon North Slope: Seasonal and inter-annual dynamics of habitat use and resource selection 2014 - 2019. Technical report for: Department of Environment, Government of Yukon. Whitehorse, YK, Canada.
4. **Gurarie, E**, J Hodson, A Kelly. (2021) Burn severity and boreal caribou habitat use. Technical report for: Government of Northwest Territories. Yellowknife, NT, Canada.
5. DeMars, C, J Hodson, A Kelly, E Lamontagne, L Smith, K Groenewegen, T Davidson, S Behrens, D Cluff, **E Gurarie**. (2021). Influence of land cover, fire and human disturbance on habitat selection by boreal caribou in the NWT. Technical report for: Government of Northwest Territories. Yellowknife, NT, Canada.
6. Wackernagel, M, C Monfreda, D Deumling, **E Gurarie**, S Friedman, A Linares, M Sanchez, I. Falfán. (2002) "The Ecological Footprint", in *Living Planet Report: 2002* ed. Jonathan Loh. World Wide Fund For Nature, Gland, Switzerland.

Blogposts and essays

1. **Gurarie, E.** "'tis the Season for Modelling Mortalities." *Methods Blog*, 31 Oct. 2019, `https://methodsblog.com/2019/10/31/modelling-mortalities/`. Invited blog-post on the platform of *Methods in Ecology and Evolution*, published by the British Ecological Society.
2. **Gurarie, E.** The trees will be our eyes. *Myosotis Messenger*, Spring 2010, `https://www.huyckpreserve.org/uploads/2/4/5/6/24560510/spring_newsletter_2019.pdf`. Published on the bi-annual newsletter of the Edmund Niles Huyck Preserve, Rensellaerville, New York.

Translation

1. G.I. Ruban. (2005). *The Siberian sturgeon* Acipenser baerii Brandt: *Species structure and ecology*. In: Special Publication Series - World Sturgeon Conservation Society, no. 1. 203 p. (translated from the Russian: **E Gurarie**)

– R packages –

1. **Gurarie, E**, P Thompson (2020) `cyclomort`: Tools for modeling periodic survival processes. CRAN: `https://CRAN.R-project.org/package=cyclomort`
2. **Gurarie, E** (2014) `bcpa`: Behavioral change point analysis of animal movement. CRAN: `http://CRAN.R-project.org/package=bcpa`
3. **Gurarie, E** and F Cheraghi (2017) `marcher`: Migration and Range Change Estimation in R. `http://CRAN.R-project.org/package=marcher`
4. **Gurarie, E** (2017) `smoove`: Simulation and Estimation of Correlated Velocity Movement (CVM) Models. GitHub: `https://github.com/EliGurarie/smoove`.
5. **Gurarie, E**, P Mahoney, S Davidson (2017) `above`: Functions and methods for Animals on the Move (ABoVE - NASA). GitHub: `https://github.com/ABoVE-AotM/above`.
6. Fleming, C, J Calabrese and **E Gurarie** (2020) `ctmm`: Continuous time movement modeling. CRAN: `https://CRAN.R-project.org/package=ctmm`

– Creative Endeavors and Works –

- *Brose A*, A Gunn, I Freeman, **E Gurarie**, L Meinert, A Guile, J Pellissey, S Behrens, P Jacobsen, *O Couriot*, S Salganek and M Kauffman (2024) *Shifting Trails: the shrinking range of Bathurst Caribou*. A multimedia essay co-created with Indigenous partners in northern Canada describing the population ecology, including the recent collapse, consequent range shrinkage, and current monitoring and co-management efforts, of the once vast, now perilously close to extinct Bathurst caribou herd.

Presentations

– Invited Speaker –

Jun 2024	MPI-AB Institute Seminar. Max Planck Institute of Animal Behavior
May 2024	Department of Ecology Seminar. Universidade Federal do Gampo Grosso do Sul
Jan 2024	Biological and Earth Sciences Seminar Speaker . University of California, San Diego (virtual)
Nov 2023	CARPE - visiting scholar. University of New Hampshire, Durham, NH
Apr 2023	Department of Biology seminar. Université de Sherbrooke, Québec, Canada
May 2021	NASA Goddard Scientific Colloquium. NASA Goddard Space Flight Center, MD
Oct 2019	Forest and Wildlife Ecology Seminar Speaker. University of Wisconsin, Madison, WI

Jun 2019	Plenary Speaker. Brazil Move II Conference, Campo Grande, Brazil
May 2016	Department Seminar. China West Normal University, Nanchong, Sichuan, China
Mar 2016	Mathematical Biology Seminar. Case Western Reserve University, Cleveland, OH
Feb 2016	Ecology and Environmental Science Groups Seminar. Lamont Earth Observatory, Columbia University
Nov 2015	Wetlands and Aquatic Research Center Weekly Seminar. USGS Southeast Ecological Science Center, Gainesville, FL
Oct 2014	Department of Fish, Wildlife and Conservation Biology Seminar. Colorado State University, Fort Collins, CO
Apr 2014	Ecology and Biodiversity Seminar . Fondazione Edmund Mach, Trentino, Italy
Apr 2014	Biodiversität und Klima Forschungs Zentrum seminar . Frankfurt, Germany
Aug 2013	CSIRO Ecosciences seminar. Ecosciences Precinct, SCIRO, Brisbane, Australia
Jul 2013	Environmental Decisions Science seminar. University of Queensland, Brisbane, Australia
Jul 2013	Centre of Excellence for Environmental Decisions seminar. University of Melbourne, Australia
Jun 2013	ORGANICS mathematical biology seminar. Swinburne University, Melbourne, Australia
Oct 2012	Wildlife Sciences Department seminar. University of Washington, Seattle, WA
Aug 2012	Keynote speaker at telemetry symposium. American Fisheries Society Meeting, St. Paul, MN
May 2011	Quantitative Fisheries seminar. University of Washington, Seattle, WA
Oct 2009	Keynote speaker. 17th Biennial Marine Mammal Conference, Québec City, Canada
Sep 2008	Department of Wildlife Biology seminar. University of Montana, Missoula, MT
May 2008	Metapopulation Research Group seminar. University of Helsinki, Finland

– Conference Presentations (since 2020) –

underlined speakers are students at SUNY-ESF.

October, 2024 **The Wildlife Society Annual Conference, Baltimore, NY**, *Predator vs Prion: Grey Wolves' Role in Mitigating Chronic Wasting Disease*, E Khadonova, T Van Deelen, A Ketz, J Gilbert, M Menon, W Turner, **E Gurarie**.

October, 2024 **The Wildlife Society Annual Conference, Baltimore, NY**, *The permeability R Package: A Maximum-Likelihood Based Tool to Quantify the Permeability of Linear Barriers to Animal Movement*, N Barbour, A Kelly, **E Gurarie**.

October, 2024 **The Wildlife Society Annual Conference, Baltimore, NY**, *Study areas and vital rates: how sampling shapes boreal caribou population trends*, C Beaupré, A Kelly, J Hodson, A Ashley McLaren, È Lamontagne, **E Gurarie**.

February, 2024 **Biomove Symposium, University of Potsdam**, *Identification of Animal Migration in 3D*, J Signer, **E Gurarie**, W Peters.

June, 2023 **Black Rock Forest Science Symposium, Cornwall, NY**, *How Does Urban Development Affect Niche Partitioning of Mesopredators?*, S Opel, **E Gurarie**, S LaPoint.

May, 2023 **North American Caribou Workshop / Arctic Ungulate Conference, Anchorage, AK**, *Using auditory recording units to monitor insect activity and infer harassment intensity*, M Perra, S Crimmins, O Couriot, T Brinkman, N Boelman, **E Gurarie**.

May, 2023 **North American Caribou Workshop / Arctic Ungulate Conference, Anchorage, AK**, *Differential impacts of environmental conditions and movement behavior on Arctic ungulate survival across seasons*, C Beaupré, **E Gurarie**, K Joly, O Couriot, DA Hansen, M Cameron.

May, 2023 **North American Caribou Workshop / Arctic Ungulate Conference, Anchorage, AK**, *Spatial aggregations of satellite-collared migratory caribou, an indicator of insect harassment in the Arctic*, O Couriot, **E Gurarie**, A Gunn, J Adamczewski.

May, 2023 **North American Caribou Workshop / Arctic Ungulate Conference, Anchorage, AK**, *Emerging tools for processing audio data from animal-borne recorders*, M Perra, E Çoban, T Brinkman, M Mandel, **E Gurarie**.

May, 2023 **North American Caribou Workshop / Arctic Ungulate Conference, Anchorage, AK**, *Muskox habitat association and interaction with caribou.*, L Carter, É Bélanger, **E Gurarie**, M Suitor, et al ..

May, 2023 **North American Caribou Workshop / Arctic Ungulate Conference, Anchorage, AK**, *Measurements and consequences of (im)-permeability of landscape features for highly mobile caribou*, **E Gurarie**, N Barbour, A Kelly, J Adamczewski, A Gunn.

May, 2023 **North American Caribou Workshop / Arctic Ungulate Conference, Anchorage, AK**, *Boreal caribou response to wildfire burn severity varies across seasons* , A Kelly, **E Gurarie**, E Palm, E Whitman, J Hodson.

August, 2022 **Ecological Society of America annual meeting, Montréal, Canada**, *Complementary definitions of calving grounds improve identification of critical habitat for migratory caribou*, O Couriot, **E Gurarie**, O Cosby, M Campbell, M Leblond.

February, 2023 **Arctic Science Summit Week, Vienna, Austria (virtual attendance)**, *Fate of the Caribou and Knowledge of the Caribou: Transcending Boundaries (*invited talk*)*, **E Gurarie** and A Brose.

December, 2021 **Arctic Change, (virtual)**, *The effects of climate on barren-ground caribou populations: the importance of reaching calving ground*, O Couriot, Cameron, M, Joly, K, Adamczewski, J, Kelly, AP, Davison, T, Gunn, A, Williams, J, Fagan, WF, and Gurarie, E .

– Invited Working Groups –

Outcomes of almost all of these workshops have been synthesis papers or journal special issues.

May 2024 BrazilMove Workshop. Panthera Field Station, Pantanal, Brazil

February 2024 Applied Stochastic Processes for Encounter Problems. Brin Institutute, UMD-College Park, MD

June 2023 Global Initiative on Ungulate Migration Meeting. Jackson Hole, Wyoming

May 2019 Learning and animal movement. Banff International Research Station

March 2018 Understanding Northern Latitude Vegetation Greening and Browning. National Academies of Science Engineering and Medicine, Washington, DC

Summer 2014, 2018 AniMove Spatial and movement ecology retreat. Smithsonian Conservation Biology Institute, Front Royal, VA

August 2012 Workshop on uniting questions and tools in movement analysis. Hedmark University College, Norway

September 2011 2012 Movement modeling workshop. University of St. Andrews, Scotland

Grants

– current awards –

Total of **$2,272,080** to SUNY-ESF since November, 2021.

Date	Title	PIs and Co-PIs	Funder	Amount
2025-2027	Using high-resolution telemetry to determine habitat requirements of the cryptic, endangered New England cottontail in restored early successional forest	PI: E. Gurarie, co-PI: Jonathan Cohen	McIntire-Stennis Program / USDA	$89,926
2024-2027	Evaluating permeability of the proposed Lockart All-Season Road project to barren-ground caribou movements	PI: E. Gurarie	GNWT-ECC*	$18,250

Date	Title	PIs and Co-PIs	Funder	Amount
2024-2027	Using Animal-Borne Sensors and Acoustic Recording Units to Monitor Caribou Behavior, Insect Harassment and Sound Disturbance	PI: E. Gurarie	GNWT-ECC	$122,550
2024-2025	Porcupine Caribou Analyses	PI: E. Gurarie, Co-PI: O. Couriot	Government of Yukon	$64,600
2024-2025	Environmental and Human factors that predict boreal caribou survival and population trends in the Northwest Territories	PI: E. Gurarie	GNWT-ECC	$27,063
2024-2025	Wolves and Chronic Wasting Disease in Wisconsin	PI: E. Gurarie	University of Wisconsin	$50,374
2024-2026	Update, Support, and Development of Environmental Performance Indicators for Adaptive Management of Lake Ontario-St. Lawrence River Water Levels	PI: John Farrell, Co-PI: E. Gurarie	US Army Corps Engineers	$192,700
2023-2024	NSF Navigating the New Arctic Supplemental Request: Fate of the Caribou	PI: E. Gurarie	NSF	$130,662
2024-2025	NSF INTERN DCL: Fate of the Caribou 6 month professional internship program	PI: E. Gurarie	NSF	$55,000
2023-2026	Using Animal-Borne Sensors and Acoustic Recording Units to Monitor Caribou Behavior, Insect Harassment and Sound Disturbance	PI: E. Gurarie	GNWT-CIMP†	$226,800
2023-2026	Comparative analysis of climate, weather, and spatial patterns affecting caribou survival patterns	PI: E. Gurarie	GNWT-CIMP	$113,400
2023-2026	NSF: Navigating the New Arctic: Fate of the Caribou: from local knowledge to range-wide dynamics in the changing Arctic	PI: E. Gurarie, co-PIs at 3 other institutions	NSF	$1,176,681

∗ Department of Environment and Climate Change, Government of Northwest Territories, Canada
† CIMP is the Cumulative Impacts Monitoring Program under the Government of Northwest Territories and Polar Canada (federal research funding agency).

– Grant Proposals Under Review –

Date	Title	PIs and Co-PIs	Funder	Amount
2025-2030	Collaborative Research: Navigating change: leveraging transdisciplinary knowledge to understand the impacts of shifting caribou distribution and abundance on local communities	PI: O Couriot (UAF) and E Gurarie	NSF	$400,000 (to SUNY)
2025-2028	Understanding and predicting the impacts of all-season road infrastructure on barren-ground caribou	PI: E. Gurarie	GNWT-CIMP	$145,000

– Unfunded Grant Proposals –

Date	Title	PIs and Co-PIs	Funder	Amount
2024-2029	NSF: Arctic System Science: Collaborative Research: Combining data streams across scales to investigate threats to caribou in a rapidly changing Arctic	PI: D. Zona (UCSD), E. Gurarie, O. Couriot	NSF	$400,000 to SUNY-ESF
2024-2026	How are mesocarnivore communities structured by (and structuring) forests in an urban-wilderness gradient in New York State?	PI: E. Gurarie, co-PIs: C. Beyer, C. Whipps, B. Underwood	McIntire-Stennis Program / USDA	$81,229
2023-2025	Predicting the impact of wolf predation on prevalence and spread of Chronic Wasting Disease in white-tailed deer in western Great Lakes Forest	PI: E. Gurarie	McIntire-Stennis Program / USDA	$58,000
2023-2026	Empowering remote northern communities to use machine-learning tools to support nature-based climate solutions	PI: E. Gurarie	Climate Change AI (CCAI) Innovation Grant (Microsoft)	$150,000

– Previous Awards –

prior to coming to SUNY-ESF

Date	Title	PIs and Co-PIs	Funder	Amount
2019-2022	Ecological Investigation of Western Arctic Herd Caribou	PI: E. Gurarie	National Park Service, Alaska, Cooperative Ecosystems Studies Unit	$145,000
2019-2022	Data integration to improve population distribution estimation with animal tracking data	co-PI: E. Gurarie	NSF: IIBR Informatics 1915347	$760,000
2019-2022	Modeling Animal Dispersal: Linking the Ideal to the Real	co-PI: E. Gurarie	NSF: DMS 1853465	$180,000
2017-2018	Mammal watching: inferring carnivore behavior and abundance via snow tracking and camera traps	PI: E. Gurarie	Huyck Preserve Research Grant	$8,000
2015-2018	Advanced mathematical, statistical, and software tools to unlock the potential of animal tracking data	co-PI: E. Gurarie	NSF: ABI 1458748	$1,165,594

Service

– SUNY-ESF –

- 2022-present: Committee member, examiner or chair for
- 2022-present: Undergraduate adviser for over ~20 students, overwhelmingly from the Wildlife Sciences major. This is among the highset advising workloads in the department.
- 2024-present: Member of the *Brazil Engagement Group* coordinated by the International Office.
- 2024: Served on faculty search committee for data scientist cluster hire. Co-drafted memos of recommendation for the provost. Engaged in multiple meetings and discussions with faculty at ESF (even pre cluster hire) on strategies for increasing the offerings related to Data Science.
- 2023: Contributions (data scraping, analysis and visualization) for the Environmental Biology Strategic Plan.
- 2022-present: Employment of two post-doctoral researchers, Ophélie Couriot and Nicole Barbour – who are actively contributing to grant-writing, teaching and outreach in service to both the univeristy and the department.
- 2022-present: Faculty adviser for SUNY-ESF student chapter of The Wildlife Society. Among other student-focused duties, I notably organized a screening of a nature documentary *Pleistocene Park*, inviting the filmmaker to visit SUNY-ESF, and organizing and moderating a panel with several prominent members of the SUNY-ESF community to discuss the content of the movie. This event attracted well over 100 attendees.
- 2022-present: Participation in (a) incoming student open house, (b) Sloane professional development panel, and (c) Syracuse University graduate student and post-doctoral career panel

– Reviewer: Journals –

Animal Conservation • *Behavioral Processes* • *Biological Conservation* • *Canadian Journal of Fisheries and Aquatic Sciences* • *Ecology* • *Ecology and Evolution* • *Ecology Letters* • *Ecological Modeling* • *Ecological Monographs* • *GEOFORUM* • *Journal of Animal Ecology* • *Journal of Insect Behavior* • *Journal of the Royal Society Interface* • *Journal of Theoretical Biology* • *Marine Ecology Progress Series* • *Methods in Ecology and Evolution* • *Movement Ecology* • *Oecologia* • *Nature Communications* • *Palaeontologia Electronica* • *PLoS-One* • *Proceedings of the Royal Society B* • more

– Reviewer: Proposals –

North Pacific Research Board • International Fund for Science (Sweden) • Swiss National Science Foundation • Canada Foundation for Innovation

– Society Membership –

The Wildlife Society • American Geophysical Union • Society for Conservation Biology • Ecological Society of America

– Outreach and Communication –

- 2022: Interviewed for article on acoustic research on caribou for Cabin Radio, link.
- 2020: Interviewed for *New Scientist*, *[Mongabay.com*, *BBC World Service*, *Smithsonian*, *Scientific American*, *Berliner Zeitung* and other outlets on climate change affecting animal movements in the Arctic.
- 2019: Interviewed for *Arctic Today*, *The Wildlife Society*, *Phys.org* and other outlets on the influence of insects on caribou migrations.
- 2018: Popular science press conference on caribou migrations at American Geophysical Union - Annual Meeting 2018: `https://www.youtube.com/watch?v=HeFssUZBaug`
- 2010-2012: Pacific Science Center, Seattle - Communication Fellow. Active participant in annual *Polar Science Weekend* - developed and ran an interactive activity for children on studying arctic marine mammals.

Miscellaneous

– Field Work –

- Aerial survey of Bathurst and Bluenose East **caribou** calving grounds out of Kugluktuk, Nunavut, Summer 2018
- Intensive winter camera trap network and snow-tracking of **fishers** and **coyotes** in Huyck Natural Preserve, Rensellaerville, NY, Winter 2017-18.

- **Mule** and **white-tailed deer** survival study in the Colville Reservation, Washington State. Summer 2014.
- **Wolf** capture, collaring and release in eastern Finland with Finnish Game and Fisheries Research Institute (RKTL), Spring 2011.
- Coastal surveys of **sea otter** populations on the outer coast of the Olympic Peninsula in Washington State with Washington Department of Fish and Wildlife (WDFW), Summers 10-12.
- Tagging and monitoring of **northern fur seals** on the Pribilof Islands in Alaska with National Marine Mammal Lab (NMML, NOAA Fisheries), Fall 2010.
- Field tracking of GPS collared **wolves** in Finland (RKTL), Summer 2009 and 2011.
- Participated on several NMML and Russian Academy of Sciences joint expeditions in the Kuril Islands, Kamchatka and northern Sea of Okhotsk. Work entailed: (a) several month periods of observing **Steller sea lion** behavior during the reproductive season, (b) counts of sea lions and northern fur seals throughout their range in Asian waters, and (c) instrumentation of sea lions and **northern fur seals** with sattelite tags and other telemetric devices. Summers 2004, 2005, 2007.
- Participated in a joint US-Russian expedition to survey and satellite tag **Pacific walrus** in the Bering Sea during the ice-bound reproductive period. March 2006.
- Salmon carcass collections in Puget Sound rivers, trawling sampling trips on the Puget Sound and collection of flying squirrel traps in Olympic Peninsula. 2003 - 2008.

– Programming –

- Expert knowledge of `R`, LaTeX, `knitr`, `rmarkdown`, STAN. Experience building packages, integrating precompiled code, use of spatial/GIS analysis packages (`sp`, `maptools`, `rgdal`), Bayesian MCMC, version control.
- Proficiency in QGIS, MatLab, Mathematica, C++, `html`, Google Earth Engine (javascript)

– Languages –

- Native fluency in **Russian**, with extensive interpretation and translation experience.
- Near-native fluency in **French** and **German**
- High proficiency in **Spanish**
- Reading knowledge of **Portuguese**, **Italian**, **Ukrainian**, **Dutch**
- Former Red Cross volunteer interpreter (Russian, Spanish and French).

– Miscellaneous –

- Classical / Gypsy Jazz / Folk - Piano / Accordion / Penny Whistle
- Backpacking - Kayaking - Cross-country skiing
- Father