

## CURRICULUM VITAE

**Adam A. Pepi**

Department of Biology  
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### EDUCATION

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**Ph.D. Ecology, University of California Davis. 2021.**

Major Advisors: Dr. Richard Karban & Dr. Marcel Holyoak

Visiting scholar at Simon Fraser University. 2020-2021

Sponsor: Dr. Jenny Cory

**M. S. Organismic and Evolutionary Biology, University of Massachusetts Amherst. 2015.**

Major Advisor: Dr. Joseph Elkinton.

**B. S. Forestry, University of Massachusetts Amherst. 2014.**

*Summa cum laude*

### ACADEMIC APPOINTMENTS

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**Postdoctoral Fellow, Tufts University. October 2021-Present**

Supervisor: Dr. Lawrence Uricchio

**Fulbright Fellow, University of Tromsø & Norwegian Institute for Nature Research. 2016-2017.**

Sponsors: Dr. Rolf Ims & Dr. Jane Jepsen

### PUBLICATIONS

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1. McMunn, M.† & A. Pepi. 2021. Predicted asymmetrical effects of warming on nocturnal and diurnal soil-dwelling ectotherms. *The American Naturalist*, in press.
2. Pepi, A., & M. McMunn†. 2021. Predator diversity and thermal niche complementarity attenuate indirect effects of warming on prey survival. *The American Naturalist*, 198: 33-43. <http://dx.doi.org/10.1086/714590>
3. Pepi, A., M. Holyoak & R. Karban. 2021. Altered precipitation dynamics lead to a shift in herbivore dynamical regime. *Ecology Letters*, 24: 1400-1407. <https://doi.org/10.1111/ele.13756>
4. Pan, V.,\* A. Pepi, J. Goidell & R. Karban. 2021. Retention of green leaves not brown leaves increases spring cynipid diversity on large Valley Oaks. *Arthropod-Plant Interactions*, 15:353-36. <https://doi.org/10.1007/s11829-021-09815-7>
5. Pepi, A. & R. Karban. 2021. Effects of experimental watering but not warming on herbivory vary across a gradient of precipitation. *Ecology and Evolution*, 11:2299-2306. <https://doi.org/10.1002/ece3.7197>
6. Karban, R., E. LoPresti†, A. Pepi & P. Grof-Tisza†. 2019. Induction of the sticky plant defense syndrome in wild tobacco. *Ecology*, 100:e02746. <https://doi.org/10.1002/ecy.2746>

7. Grof-Tisza, P.‡, **A. Pepi**, M. Holyoak & R. Karban. 2019. Precipitation-dependent source-sink dynamics in a spatially structured population of an outbreaking caterpillar. *Landscape Ecology*, 34:1131-1143. <https://doi.org/10.1007/s10980-019-00793-z>
8. Grof-Tisza, P.‡, & **A. Pepi**. 2019. Cannibalism of pupae by caterpillars of the Ranchman's tiger moth, *Arctia virginalis*, (Lepidoptera: Erebiidae). *American Midland Naturalist*, 181:139-142. <https://doi.org/10.1674/0003-0031-181.1.139>
9. Vindstad, O. P.‡, J. Jepsen, M. Ek†, **A. Pepi** & R. Ims. 2018. Can novel pest outbreaks drive ecosystem transitions in northern-boreal birch forest? *Journal of Ecology*, 107: 1141-1153. <https://doi.org/10.1111/1365-2745.13093>
10. **Pepi, A.**, P. Grof-Tisza‡, M. Holyoak & R. Karban. 2018. As temperature increases, predator attack rate is more important to survival than a smaller window of prey vulnerability. *Ecology*, 99:1584-1590. <https://doi.org/10.1002/ecy.2356>
11. **Pepi, A.**, O.P.L Vindstad‡, M. Ek† & J. Jepsen. 2017. Elevationally biased avian predation as a contributor to altitudinal distribution of eruptive geometrids in sub-arctic mountain birch forest. *Ecological Entomology*, 42:430-448. <https://doi.org/10.1111/een.12400>
12. **Pepi, A.**, H. Broadley† & J. Elkinton. 2016. Density-dependent effects of larval dispersal mediated by host plant quality on populations of an invasive insect. *Oecologia* 182:499-509. Erratum 185:533-535. <https://doi.org/10.1007/s00442-016-3689-z>

#### Preprints:

1. **Pepi, A.**, V. Pan\* & R. Karban. Influence of delayed density and ultraviolet radiation on caterpillar granulovirus infection & mortality. *BioRxiv*: <https://doi.org/10.1101/2021.03.22.436482>

\* – Undergraduate coauthor; † – Graduate student coauthor; ‡ – Postdoctoral coauthor.

#### TEACHING & MENTORING

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##### University of California, Davis

###### Instructor

General Ecology. Summer 2020 & 2021

###### Guest Lecturer

General Ecology. Fall 2018

###### Teaching Assistant

Introduction to Biology: Principles of Ecology and Evolution. Spring 2017, Winter 2018 & 2019, Spring 2021

Terrestrial Field Ecology. Spring 2018 & 2019

General Ecology. Fall 2018

Population Ecology. Winter 2020

Behavioral Ecology of Insects. Spring 2021

###### Pedagogical Training:

'Biology Education Research and Evidence-based Teaching' seminar, UC Davis, Winter 2020

### **Undergraduate research mentoring:**

Isabelle Gilchrist, Fiona Beyerle, Jasmine Daragahi, Gina Mongiello-Lopez, Claire Beck, Vincent Pan, Vinay Mase, Cameron Moseley, Aiyanna Laws-McNeil, Alexis Ballman. 2018-2021

### **Graduate seminar organizer:**

‘Epistemology, Theory & Empiricism: How do we know anything in ecology?’. Winter 2018 & 2019.

### **University of British Columbia**

#### **Guest Lecturer**

Insect Ecology. Winter 2021

### **HONORS & GRANTS**

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H. A. Jastro Shields Research Scholarship Award, UC Davis. **\$2,000. 2020**

Graduate Group in Ecology Fellowship, UC Davis. **\$12,000. 2019**

Center for Population Biology Research Award, UC Davis. **\$1,000. 2019**

H. A. Jastro Shields Research Scholarship Award, UC Davis. **\$3,000. 2019**

UC Davis Natural Reserves Student Research Grant. **\$2,950. 2019**

Mildred E. Mathias Graduate Student Research Grant, UCNRS **\$2,500. 2018**

H. A. Jastro Shields Research Scholarship Award, UC Davis. **\$1,000. 2018**

Institute for the Study of Ecological and Evolutionary Climate Impacts Fellowship, UCNRS. **\$10,000. 2017**

J. William Fulbright Student Fellowship. **\$17,000. 2016**

NSF Graduate Research Fellowship, Honorable Mention. **2016**

Commonwealth Honors College Scholar with Greatest Distinction, UMass Amherst. **2014**

### **CONFERENCE PRESENTATIONS**

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Arctiinae (Tiger Moth) Research Community Meeting. **2021**

Presentation: *Thermal melanism or ultraviolet protection? Wing melanism, predation, temperature, and solar radiation in Ranchman's tiger moth (Arctia virginalis)*

Ecological Society of America Annual Meeting. **2020**

Presentation: *Effects of experimental watering & warming on herbivory across a gradient of precipitation*

Climate Change in the UC Reserves: ISEECI Conference, UC Santa Cruz. **2019.**

Invited Presentation: *Thermal asymmetries & predator prey interactions in a warming world*

Joint Entomological Society of America, Ent. Soc. of Canada, and Ent. Soc. of British Columbia Meeting. **2018**

Presentation: *Bottom-up vs. top-down mediated effects of temperature and rainfall on population dynamics of the Ranchman's tiger moth (Arctia virginalis)*

Ecological Society of America Annual Meeting. **2018**

Poster: *As temperature increases, predator attack rate is more important*

*to survival than a smaller window of prey vulnerability*

Norwegian Ecological Society Conference. **2017**

Presentation: *Elevational distribution of geometrid moth outbreaks: role of avian and pupal predation*

XXV International Congress of Entomology. **2016**

Invited Presentation: *Role of dispersal in regulating densities of outbreak populations of winter moth in North America*

Ecological Society of America Centennial Meeting. **2015**

Presentation: *Effects of dispersal mediated by host plant quality on outbreaking winter moth (Lepidoptera: Geometridae) populations*

Northeast Forest Pest Council. **2015**.

Presentation: *Effects of dispersal and host plant interactions on outbreaking winter moth (Lepidoptera: Geometridae) populations in Massachusetts*

USDA Interagency Research Forum on Invasive Species. **2015**.

Presentation: *Dispersal as a regulator of outbreaking winter moth (Lepidoptera: Geometridae) populations in Massachusetts*

Entomological Society of America. **2014**

Poster: *Survival of larval winter moths (Lepidoptera: Geometridae): Population dynamics of an invasive defoliator*

IUFRO World Congress / Society of American Foresters National Meeting. **2014**

Poster: *Survival of larval winter moths (Lepidoptera: Geometridae) in field and laboratory studies*

## **QUANTITATIVE TRAINING & SKILLS**

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- Frequentist multilevel modelling (2 courses – UMass Amherst, 2014–15)
- Bayesian multilevel modelling (1 course – UC Davis, 2018)
- Time series modelling, state-space modelling (self-taught)
- Structural equation modelling (1 short course – Bodega Marine Lab, 2018)
- Mathematical population modelling: ordinary & partial differential equations, diffusion models, simulation models (3 courses – UC Davis, 2017–19)
- R statistical language (3 courses – UMass and UC Davis, 2014–2018)
- JAGS and STAN (1 course – UC Davis, 2018)
- ArcGIS and QGIS spatial modelling software (1 course – UMass, 2015)

## **LANGUAGES**

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Self-assessed language competency:

English – *Native speaker*

French – *Intermediate (CEFR B1; CLB 5)*

Italian - *Advanced intermediate (CEFR B2; CLB 7)*

Spanish - *Advanced beginner (CEFR A2; CLB 3)*

Norwegian - *Advanced beginner (CEFR A2; CLB 2)*

#### ACADEMIC SERVICE & PROFESSIONAL MEMBERSHIPS

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- Reviewer for *Journal of Animal Ecology*, *Journal of Ecology*, *Ecology*, *Functional Ecology*, *Ecography*, *PLoS One*
- Panel member for Fulbright grant application reviews, UC Davis, 2020
- Member of Entomological Society of America, Ecological Society of America, American Society of Naturalists

#### REFERENCES

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Dr. Richard Karban. Professor, UC Davis, Entomology & Nematology.  
Relationship: PhD Co-advisor. Email: [rkurban@ucdavis.edu](mailto:rkurban@ucdavis.edu)

Dr. Marcel Holyoak. Professor, UC Davis, Environmental Science & Policy.  
Relationship: PhD Co-advisor. Email: [maholyoak@ucdavis.edu](mailto:maholyoak@ucdavis.edu)

Dr. Susan Harrison. Professor, UC Davis, Environmental Science & Policy.  
Relationship: Qualifying exam chair & teaching mentor. Email: [sharrison@ucdavis.edu](mailto:sharrison@ucdavis.edu)