

YUNYI SHEN

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EDUCATION

PERIOD	November 2019 — May 2021 (expected)	
DEGREE	Master of Science in Statistics	
INSTITUTE	University of Wisconsin-Madison	Madison, USA
PERIOD	August 2018 — May 2021 (expected)	
DEGREE	Master of Science in Wildlife Ecology	
INSTITUTE	University of Wisconsin-Madison	Madison, USA
PERIOD	August 2014 — July 2018	
DEGREE	Bachelor of Science in Integrated Science/Physical Biology	
INSTITUTE	Peking University	Beijing, China

RESEARCH PROJECTS

PERIOD	May 2020 —	
ADVISOR	Claudia Solís-Lemus	UW Madison
TITLE	Bayesian Conditional Auto-regressive LASSO for sparse graphic learning with predictors Develop a Bayesian conditional auto-regressive LASSO model and its extensions for high dimensional sparse regression and graphic selection.	
PERIOD	January 2019 — April 2020	
ADVISOR	Tim Van Deelen, Brian Yandell	UW Madison
TITLE	Spatially Explicit Modeling of Community Occupancy using Markov Random Field Models with Imperfect Observation: Mesocarnivores in Apostle Islands National Lakeshore Develop a zero-inflated auto-logistic regression model for spatial explicit modeling of animal species distribution and interactions.	
PERIOD	October 2018 — April 2020	
ADVISOR	Tim Van Deelen, Dwayne Etter	UW Madison
TITLE	Population Reconstruction of White Tailed Deer under Intensive Harvest Develop a dynamic Bayesian network model for time series data in intensive management of white-tailed deer.	

PERIOD **October 2016 — October 2017**
 ADVISOR **Sheng Li** Peking University
 TITLE **Distribution Mapping of Asiatic Black Bear**
 Distribution modeling of the black bear using data from multiple sources with various spatial resolutions with the Random Forest model. Develop a method for result fusion.

PUBLICATIONS AND PREPRINTS

- YEAR **2020**
- [1] **Yunyi Shen**, Timothy Van Deelen "Spatially Explicit Modeling of Community Occupancy using Markov Random Field Models with Imperfect Observation: Mesocarnivores in Apostle Islands National Lakeshore" *Biorxiv (under review of Ecological Modelling)*
 - [2] **Yunyi Shen**, Claudia Solís-Lemus "Bayesian Conditional Auto-regressive LASSO for sparse graphic learning with predictors" (*in prep*)
 - [3] **Yunyi Shen**, Mingzhang Liu, Dajun Wang and Sheng Li "Identify critical knowledge gap and conservation needs of threatened large mammal through high-resolution mapping: case of Asiatic Black Bear, China" (*in prep*)
- YEAR **2019**
- [1] Jianping Yu, **Yunyi Shen**, Xiaoyou Song, Xiaonan Chen, Sheng Li, and Xiaoli Shen "Evaluating the effectiveness of the functional zones for the protection of black muntjac (*Muntiacus crinifrons*) in Qianjiangyuan National Park" *Biodiversity*(in Chinese)

CONFERENCE PRESENTATIONS AND POSTERS

- YEAR **2020**
- [1] **Yunyi Shen**, Dwayne Etter, Tim Van Deelen, "Age structure effects and population control in urban/suburban white-tailed deer, Chicago, IL 1992-2006" *2020 Midwest Fish and Wildlife Conference*
- YEAR **2019**
- [1] Dwayne Etter, John Humphreys, Tim Van Deelen, Gary Roloff, **Yunyi Shen** "Managing White-tailed Deer Under a Newly Evolving Paradigm: A Demonstration of the Effects of Density-Dependence" *2019 annual TWS conference*
- YEAR **2017**
- [1] **Yunyi Shen**, Dajun Wang, Sheng Li "Identify critical knowledge gap and conservation needs of Asiatic Black Bear through high-resolution mapping" *Chinese Chapter of SCB Annual Conference 2017* Best graduate student presentation award
- YEAR **2016**
- [1] Jinlin Chen, Xi'er Chen, Haowen Liu, **Yunyi Shen**, Yichao Zeng, Lijie Yin "Biodiversity survey in Chongzuo examined effects of the white-headed langur (*Trachypithecus leucocephalus*) as a flagship species on habitat conservation" *Conservation of China's Tropical Diversity (Poster)*

R PACKAGES

TITLE **Ising0ccu**
 DESCRIPTION Gibbs sampler for a zero-inflated auto-logistic model with an auto-logistic zero-inflation process, available on GitHub.

TITLE **ReCAP**
 DESCRIPTION **R**econstruction of **C**ulled and **A**erial counted **P**opulations. Integrated population model used to reconstruct population dynamics using culling and aerial count data, available on GitHub.

PROFESSIONAL POSITIONS

PERIOD **January 2019 — December 2019**
 EMPLOYER **Qianjiangyuan National Park** Zhejiang China
 TITLE **Statistical Consultant**
 Black muntjac population and distribution modeling

PERIOD **June 2017 — July 2018**
 EMPLOYER **Peking University Biology Museum** Beijing China
 TITLE **Docent**
 Science communication manuscript writing, automatic guiding system construction, guide visitors

OUTREACH POSITIONS

PERIOD **2016**
 EMPLOYER *Bo Wu* (Chinese National Geography Magazine) Beijing China
 TITLE **Editor**
 Edit science communication manuscripts

GRANTS

POSITION Co-investigator
 AGENCY USDA 142 Formula Fund
 NUMBER

AWARDS AND SCHOLARSHIPS

YEAR **2020**
 AWARD Finalist of Janice Lee Fenske Memorial Award IL U.S.A.

YEAR **2019**
 AWARD Conservation Leader for Tomorrow Scholarship IL U.S.A.

YEAR **2017**
 AWARD Annual Award in Social Works Peking University

YEAR **2013**
 AWARD Silver Medal in Chinese Chemistry Olympiad Beijing, China

TEACHING

SEMESTER **Fall 2019**
 INSTITUTE UW Madison
 COURSE **General Chemistry (CHEM 103)** **TA**

SEMESTER	Spring 2019	
INSTITUTE	UW Madison	
COURSE	General Chemistry (CHEM 104)	TA
SEMESTER	Spring 2018	
INSTITUTE	Peking University	
COURSE	ESL for Non-Academic Staffs	Instructor
SEMESTER	Fall 2017 & Fall 2016	
INSTITUTE	Peking University	
COURSE	Evolution of Human Intelligence	TA
SEMESTER	Spring 2016	
INSTITUTE	Peking University	
COURSE	Undergraduate Seminar in Genetics	TA
SEMESTER	Summer 2015 & Summer 2014	
INSTITUTE	Xi'an No.1 (2015)/Tieyi (2014) High School	
COURSE	Chinese Chemistry Olympiad (CChO)	Instructor