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

TITLE	ReCAP
DESCRIPTION	**Re**construction 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**