# Yunyi Shen

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## Education

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|---|---|---|
| Period | **November 2019 — Current** | |
| Degree | **Master of Science, Statistics** | |
| Institute | **University of Wisconsin-Madison** | Madison, USA |

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| Period | **August 2018 — Current** | |
| Degree | **Master of Science, Wildlife Ecology** | |
| Institute | **University of Wisconsin-Madison** | Madison, USA |

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| Period | **August 2014 — July 2018** | |
| Degree | **Bachelor of Science, Integrated Science/Physical Biology** | |
| Institute | **Peking University** | Beijing, China |

## Research Projects

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| Period | **January 2019 —** | |
| Advisor | **Tim Van Deelen** | UW Madison |
| Title | **Spatial Explicit Occupancy Modeling of Canidae Community in Apostle Islands, WI USA** | |

Develop Ising based model account for interspecies interaction and spatial autocorrelation simultaneously.

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| Period | **October 2018 —** | |
| Advisor | **Tim Van Deelen, Dwayne Etter** | UW Madison |
| Title | **Population Reconstruction of White Tailed Deer under Intensive Harvest** | |

Developing integrated population model for white tailed deer population reconstruction, formalized as `R` package `ReCAP`. Shinyapp for selective harvest simulation see here.

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| Period | **October 2017 — August 2018** | |
| Advisor | **Sheng Li** | Peking University |
| Title | **Diversity Pattern of Pheasants in China** | |

Distribution modeling of 67 species of pheasants. Land use is the strongest single variable explaining richness across landscape.

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| PERIOD | **October 2016 — October 2017** |
| ADVISOR | **Sheng Li** Peking University |
| TITLE | **Distribution Mapping of Asiatic Black Bear** |
| | Distribution modeling of black bear using data from multiple sources with various spatial resolutions. Developing method for data fusing. |

## PUBLICATIONS

YEAR **2020**

[1] **Yunyi Shen** and Timothy R. Van Deelen. "Spatially Explicit Modeling of Community Occupancy using Markov Random Field Models with Imperfect Observation: Mesocarnivores in Apostle Islands National Lakeshore." *BioRxiv* (submitted to *Ecological Modelling*,2020).

YEAR **2018**

[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 the 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, Xier 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

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|---|---|
| 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. |

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| TITLE | `IsingOccu` |
| DESCRIPTION | Occupancy model using Ising model as occupancy and detection process, available on GitHub. |

## PROFESSIONAL POSITIONS

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|---|---|---|
| PERIOD | **January 2019 — December 2019** | |
| EMPLOYER | **Qianjiangyuan National Park** | Zhejiang China |
| TITLE | **Modeling Specialist** | |
| | Black muntjac population and distribution modeling | |

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|---|---|---|
| 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

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|---|---|---|
| PERIOD | **November 2018 — November 2019** | |
| AGENCY | Institute of Zoology, Chinese Academy of Science | |
| TITLE | **Basic ecology of black muntjac** | Biometrician |
| AMOUNT | $10,000 in total, with 3 other collaborators | |

## AWARDS AND SCHOLARSHIPS

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|---|---|---|
| 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 | **2015** | |
| AWARD | Second Award in Jiang Zehan Cup of Modeling | Beijing, China |
| YEAR | **2013** | |
| AWARD | Silver Medal in Chinese Chemistry Olympiad | Beijing, China |

| 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** |