



# Xingfeng Si

## Curriculum Vitae

### Basic Information

Position PhD Student of Ecology  
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### Education

2008–Present **PhD Student**, *Ecology*, Zhejiang University, China.  
Supervisor: Prof. PING DING  
2012–2013 **Visiting Student**, *Ecology*, Duke University, USA.  
Adviser: Prof. STUART PIMM  
2004–2008 **B. S.**, *Biology*, Zhejiang Normal University, China.  
Supervisor: Prof. YIXIN BAO

### Awards & Honors

2013 Gold Awards of the 9<sup>th</sup> Kingfisher Forum, China Ornithological Society  
2012 State Scholarship Fund, China Scholarship Council  
2012 Honorable Awards of the 1<sup>st</sup> Student Forum, CLS Zhejiang University  
2011 Merit Graduated Student in 2010–2011, Zhejiang University  
2011 Honors of First-class Scholarship in 2010–2011, Zhejiang University  
2011 Gold Awards of the 7<sup>th</sup> Kingfisher Forum, China Ornithological Society  
2009 Silver Awards of the 5<sup>th</sup> Kingfisher Forum, China Ornithological Society  
2008 Ten Outstanding Research & Training Students, Zhejiang Normal University  
2005 Excellent Student Cadre in 2004–2005, Zhejiang Normal University  
2005 Second-class Scholarship in 2004–2005, Zhejiang Normal University  
2005 Excellent League Member in 2004, Zhejiang Normal University

### Postgraduate Training

2013 **Metapopulation capacity analyses (Mathematica v9)**, A 3-day course.  
GARETH RUSSELL (New Jersey Institute of Technology). Durham, NC USA.

- 2013 **Survival rate analyses of the sooty tern *Onychoprion fuscatus***, *A 4-day course*. STUART PIMM (Duke University). Dry Tortugas, FL USA.
- 2010 **Wildness First Aid**, *A 4-day course*. LLOYD FIGGINS (EarthWatch Institute). Kaihua, Zhejiang China.
- 2009 **Spatial analysis biostatistics**, *A 5-day course*. PIERRE LEGENDRE (Université de Montréal). Beijing, China.
- 2009 **Linear regression**, *A 6-day course*. PIERRE LEGENDRE (Université de Montréal). Beijing, China.
- 2009 **Mathematical statistics, R programming language and multivariate statistical analyses**, *A 5-day course*. JIANGSHAN LAI, JINLONG ZHANG (Institute of Botany, Chinese Academic of Science), YANPING CHEN (Renmin University of China). Beijing, China.

## Research Interests

### Breeding bird turnover on fragmented islands.

The Island Biogeography Theory of MacArthur & Wilson provides important insights into fragmentation because of the proposed similarity of island surrounded by water and habitat "islands" surrounded by other habitats inhospitable to the species involved. This theory proposes that the species' colonization rates to islands depend on their isolation, while local extinction rates depend on their area. The Thousand Island Lake, eastern China exactly has the landscape to test this theory.

I examined the factors that determine the colonization and extinction of breeding birds on island using long-term counts of bird communities.

### Wildlife monitoring using camera traps.

Camera trapping of wildlife, especially for some elusive and cryptic animals, had been practiced and become an available method to estimate the abundance of animals. I investigate the relationship between the population estimation and trapping rate that can be influenced by a variety of factors, such as species-specific behavior, species size and patterns of habitat use. Then I proposed a minimum trapping effort to ensure that we can detect the wildlife of interest effectively with limited time.

## Research Projects

### Directed Projects

- 2006 *Observation and Study of Reproductive Behavior of Rodents*. Laboratory Open Program of Zhejiang Normal University. (Project Director, 1/3)

### Participated Projects

- 2013–2017 *Effects of food web and its composition on bird and plant communities in subtropical fragmented habitats - a case study of land-bridge islands in Thousand Island Lake*. National Science Foundation of China. (Core Participant, 4/8)
- 2012–2015 *Dynamic and Stability of forest bird community in fragmented habitats of Thousand Island Lake*. National Science Foundation of China. (Participant, 6/10)
- 2012–2014 *Sensitivity research on habitat fragmentation of birds and reptiles in Thousand Island Lake*. National Science Foundation of China. (Participant, 5/8)
- 2010–2012 *Biodiversity census in Baishanzu National Nature Reserve (Plants, Mammals and Birds)*. Baishanzu National Nature Reserve. (Core Participant)
- 2009–2011 *The effects of habitat fragmentation on life history traits of birds in Thousand Island Lake*. National Science Foundation of China. (Participant)

- 2009–2010 *Wild Animal Resource Census in Wuxijiang Wetland Park, Zhejiang*. Forestry Administration of Qujiang District. (Core Participant)
- 2008–2011 *Resource Monitoring Technology and Demonstration of Forest Bird Species*. Special Topic of National Key Technology R&D Program of China. (Core Participant)
- 2008 *Wildlife Resource Census in Hongshuang Nature Reserve, Rui'an*. Forestry Administration of Rui'an City. (Core Participant)
- 2007–2009 *The effects of habitat fragmentation on diversity and community composition of birds in Thousand Island Lake*. National Science Foundation of China. (Participant)

## Publications

- **Si, X.**, Pimm, S. L., Russell, G. J. & Ding, P. Turnover of breeding bird communities on land-bridge islands: testing MacArthur & Wilson's theory. *under review*
  - **Si, X.**, Kays, R. & Ding, P. How long is enough to detect terrestrial animals? Estimate the minimum trapping effort on camera traps. *under review*
  - Shen, G., Pimm, S. L., Feng, C., Ren, G., Liu, Y., Xu, W., Li, J., **Si, X.**, Su, H. & Xie, Z. Climate change challenges the static conservation strategy for the giant panda. *under review*
  - **Si, X.**, *et al.* Partitioning functional beta diversity of bird communities on islands of an inundated lake. *preparing*
- [3] **Si, X.** & Ding, P. (2011) History, status of monitoring land birds in Europe and American and countermeasures of China. *Biodiversity Science*, **19**: 303-310. (in Chinese with English abstract).
  - [2] **Si, X.** & Ding, P. (2011) Minimum trapping effort of monitoring ground-activity animals using camera traps: a case study in Gutianshan National Nature Reserve, eastern China. *Proceedings of the 7<sup>th</sup> National Conference on Wildlife Ecology and Resource Conservation*, Jinhua, China. (in Chinese).
  - [1] Zhang, L., Bao, Y., Li, H., **Si, X.** & Hu, S. (2008) The functional groups and trophic levels of soil macro-fauna in different vegetation type, Beishan Mountain, Jinhua. *Proceedings of the 8<sup>th</sup> National Conference on Biodiversity Conservation and Sustainable Utilization*, Jinhua, China, pp. 257-267. (in Chinese with English abstract).

## Presentations

### Oral Reports

- 2013 **Si, X.**, Pimm, S. L., Russell, G. J. & Ding, P. *Determinants of colonization-extinction dynamics of breeding bird communities on land-bridge islands*. The 12<sup>th</sup> China Ornithological Congress and the 9<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop, Hangzhou, China.
- 2012 **Si, X.** *Biodiversity research in the Thousand Island Lake region*. The Pimm Group at Duke University, Durham, NC USA.
- 2012 **Si, X.** *Introduction to camera traps*. Undergraduate Summer Zoology Field Practice, Thousand Island Lake, China.
- 2011 **Si, X.** & Ding, P. *Minimum trapping effort of monitoring ground-activity animals using camera traps: a case study in Gutianshan National Nature Reserve*. The 7<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop, Lanzhou, China.

- 2010 **Si, X.** & Ding, P. *Monitoring ground-activity birds using camera trapping in Gutianshan 24-ha plot.* The 9<sup>th</sup> National Conference on Biodiversity Conservation and Sustainable Utilization, Xiamen, China.
- 2010 **Si, X.** & Ding, P. *Bird monitoring in Gutianshan 24-ha plot: using spot mapping and infrared cameras.* The 2010 International Symposium on Biodiversity Monitorin, Nanjing, China.
- 2009 **Si, X.**, Shen, G. & Ding, P. *Basic results of monitoring of bird community in Gutianshan 24-ha plott.* The 3<sup>th</sup> Straits Symposium on Forest Dynamic Plots, Zhaoqing, China.
- 2009 **Si, X.** & Ding, P. *Bird community structures in Gutianshan dynamic monitoring plot.* The 5<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop, Harbin, China.

#### Posters

- 2012 **Si, X.** & Ding, P. *How long is enough to monitor ground-dwelling animals? A case study of minimum trapping effort in Gutianshan National Nature Reserve, eastern China.* The 1<sup>st</sup> Student Forum on Sci-Tech Innovation of College of Life Sciences at Zhejiang University, Hangzhou, China.
- 2012 **Si, X.** & Ding, P. *How long is enough to monitor ground-dwelling animals? A case study of minimum trapping effort in Gutianshan National Nature Reserve, eastern China.* The 13<sup>th</sup> Student Conference on Conservation Science, Cambridge, UK.

#### Memberships of Organizations

- **Member**, International Biogeography Society
- **Member**, Society for Conservation Biology
- **Member**, Ecological Society of Zhejiang Province
- **Member**, China Ornithological Society
- **Member**, Zhejiang Zoological Society

#### Attended Conferences & Symposiums

- 2013 The 12<sup>th</sup> China Ornithological Congress and the 10<sup>th</sup> Straits Symposium on Ornithology, Hangzhou, China.
- 2013 The 9<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop, Hangzhou, China.
- 2013 The 26<sup>th</sup> International Conference on Conservation Biology, Baltimore, MD USA.
- 2012 The 1<sup>st</sup> Student Forum on Sci-Tech Innovation of College of Life Sciences at Zhejiang University, Hangzhou, China.
- 2012 The 13<sup>th</sup> Student Conference on Conservation Science, Cambridge, UK.
- 2011 The 9<sup>th</sup> National Conference on Biodiversity Conservation and Sustainable Utilization, Xiamen, China.
- 2011 The 4<sup>th</sup> Straits Symposium on Forest Dynamic Plots, Xiamen, China.
- 2011 The 7<sup>th</sup> National Conference on Wildlife Ecology and Resource Conservation, Jinhua, China.
- 2011 The 11<sup>th</sup> China Ornithological Congress, Lanzhou, China
- 2011 The 7<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop, Lanzhou, China.
- 2011 Symposium for Theoretical Ecology and Biodiversity, Guangzhou, China
- 2010 The 2010 International Symposium on Biodiversity Monitorin, Nanjing, China.

- 2009 The 3<sup>th</sup> Straits Symposium on Forest Dynamic Plots, Zhaoqing, China.
- 2009 The 11<sup>th</sup> Congress of Zhejiang Zoological Society, Jinhua, China.
- 2009 The 10<sup>th</sup> China Ornithological Congress and the 8<sup>th</sup> Straits Symposium on Ornithology, Harbin, China.
- 2009 The 5<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop, Harbin, China.
- 2008 The 8<sup>th</sup> National Conference on Biodiversity Conservation and Sustainable Utilization, Jinhua, China.
- 2008 The 4<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop, Beijing, China.

## Teaching Assistance Experience & Social Activities

- 2012 **Teaching Assistant**, *Undergraduate Summer Zoology Field Practice*, Tianmushan Biosphere Reserve and Thousand Island Lake, Zhejiang Province, China.
- 2010 **Teaching Assistant**, *Undergraduate Summer Zoology Field Practice*, Tianmushan Biosphere Reserve, Zhejiang Province, China.
- 2009 **Teaching Assistant**, *Undergraduate Summer Zoology Field Practice*, Tianmushan Biosphere Reserve, Zhejiang Province, China.
- 2013 **Local Organizer**, *The 9<sup>th</sup> Kingfisher Forum of Chinese Young Ornithologists Workshop*, Hangzhou, China.
- 2011 **Invited Guest**, *Chuyang Forum of Zhejiang Normal University*, Jinhua, China.
- 2011 **Invited Report**, *Swearing Conference for College Entrance Exam of Yiting High School*, Yiwu, China.
- 2008 **Laureate**, *Ten Outstanding Research & Training Students of Zhejiang Normal University*, Jinhua, China.
- 2008 **Beijing Olympic Torch Escort**, *Beijing Olympic Torch Relay Center*, Shaoxing, China.
- 2006–2007 **Deputy Director**, *The Secretariat of Student Council*, Chuyang Honors College, Zhejiang Normal University, China.
- 2004 **Student Representative**, *Special talk in the 2004 Graduation Ceremony of Yiting High School*, Yiwu, China.

## Computer Skills

- Advanced R, Microsoft Office, Photoshop
- Intermediate L<sup>A</sup>T<sub>E</sub>X, OS iWork, WordPress, EndNote, Google Earth
- Basic Mathematica, PHP, Markdown, CANOCO, WinBUGS

## Languages & Other Skills

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|-------------|----------------------|--|
| Chinese     | <b>Mother tongue</b> | <i>Native fluent</i>                             |
| English     | <b>Intermediate</b>  | <i>Fluent reading, competent in conversation</i> |
| Spanish     | <b>Basic</b>         | <i>Basic words and phrases only</i>              |
| Field Skill | <b>Good</b>          | <i>Wildness First Aid: Level 2</i>               |
| Running     | <b>Excellent</b>     | <i>Full Marathon: 4h51min</i>                    |