

# Xingfeng Si

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## RESEARCH INTERESTS

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Beta diversity, biodiversity conservation, biotic homogenization, camera trap, community assembly, functional trait, habitat fragmentation, imperfect detection, island biogeography, land-use change, occupancy model, phylogenetic diversity, wildlife monitoring

## POSITIONS

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2016/11–present Postdoctoral Fellow. Department of Biological Sciences, University of Toronto  
2014/10–present Postdoctoral Research Fellow. College of Life Sciences, Zhejiang University  
2016/07–2016/08 Visiting Scholar. Museum of Comparative Zoology, Harvard University

## EDUCATION

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2008/09–2014/09 Ph.D. Ecology, Zhejiang University  
2012/08–2013/08 Visiting Student. Ecology, Duke University  
2004/09–2008/06 B.S. Biological Science, Zhejiang Normal University

## AWARDS AND HONORS

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2017 Cheng Tso-Hsin Young Ornithologist Prize, Cheng Tso-Hsin Trust for Ornithology  
2015 Outstanding Graduate Student Award in Ornithology, China Ornithological Society  
2014 Poster Award of WERC National Conference, Mammalogical Society of China  
2013 Gold Award of the 9th Kingfisher Forum, China Ornithological Society  
2012 Award of Honor of the 1st Student Forum, CLS Zhejiang University  
2011 Graduate of Merit/Triple A Graduate, Zhejiang University  
2011 First-class Award of Honor for Graduate, Zhejiang University  
2011 Gold Award of the 7th Kingfisher Forum, China Ornithological Society  
2009 Silver Award of the 5th Kingfisher Forum, China Ornithological Society  
2008 Ten Outstanding Research & Training Students, Zhejiang Normal University  
2005 Excellent Student Cadre, Zhejiang Normal University  
2005 Second-class Scholarship, Zhejiang Normal University  
2005 Excellent League Member, Zhejiang Normal University

## GRANTS AND FELLOWSHIPS

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2017–2019	Talent Project, Zhejiang Association for Science and Technology. (Fellowship)	¥50,000
2016–2018	Taxonomic and functional beta diversity of bird and mammal communities in fragmented habitats of the Thousand Island Lake. National Natural Science Foundation of China. (PI)	¥240,000
2016–2018	International Postdoctoral Exchange Fellowship Program, The Office of China Postdoctoral Council. (Fellowship)	¥300,000
2016–2017	International Postdoctoral Collaboration Fellowship Program, College of Life Sciences, Zhejiang University. (Fellowship)	¥100,000
2016–2017	Effects of habitat fragmentation on functional and phylogenetic diversity and community structures of birds. China Postdoctoral Science Foundation. (PI) [Declined to avoid double funding]	¥50,000
2016	International Postdoctoral Travel Grant, The Office of China Postdoctoral Council. (Fellowship)	¥30,000
2015	Postdoctoral Fellow Travel Grant, Zhejiang University. (Fellowship)	¥20,000
2012–2013	Joint Ph.D. Training Program, China Scholarship Council. (Scholarship)	¥130,000
2012	Graduate Student Travel Grant, Zhejiang University. (Scholarship)	¥4,000
2006–2007	Observations of the reproductive behavior of rodents. Laboratory Open Program of Zhejiang Normal University. (PI)	¥800
2008–	Participated more than 10 projects, including 7 NSFC. (Participant)	¥6,374,000

## PUBLICATIONS

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### Journal Articles <sup>#</sup>equal contribution

18. Si X, Cadotte MW, Zeng D, Baselga A, Zhao Y, Li J, Wu Y, Wang S, Ding P. (2017) Functional and phylogenetic structure of island bird communities. *Journal of Animal Ecology* 86: 532–542.
17. Si X, Zhao Y, Chen C, Ren P, Zeng D, Wu L, Ding P. (2017) Beta-diversity partitioning: methods, applications and perspectives. *Biodiversity Science* 25: 464–480. [in Chinese with English Abstract]
16. Wu L<sup>#</sup>, Si X<sup>#</sup>, Didham RK, Ge D, Ding P. (2017) Dispersal modality determines the relative partitioning of beta diversity in spider assemblages on subtropical land-bridge islands. *Journal of Biogeography* 44: 2121–2131.
15. Wang Y<sup>#</sup>, Si X<sup>#</sup>, Bennett PM, Chen C, Zeng D, Zhao Y, Wu Y, Ding P. (2017) Ecological correlates of extinction risk in Chinese birds. *Ecography*, in press. doi: 10.1111/ecog.03158
14. Chen C, Holyoak M, Si X, Wang Y, Ding P. (2017) Do seasonal species assemblages differ in their biogeography? Evidence from the spatial structure of bird communities on land-bridge islands. *Journal of Biogeography*, in press. doi: 10.1111/jbi.13112
13. Si X, Baselga A, Leprieur F, Song X, Ding P. (2016) Selective extinction drives taxonomic and functional alpha and beta diversities in island bird assemblages. *Journal of Animal Ecology* 85: 409–418.
12. Wilson MC, Chen X, Corlett RT, Didham RK, Ding P, Holt RD, Holyoak M, Hu G, Hughes AC, Jiang L, Laurance WF, Liu J, Pimm SL, Robinson SK, Russo SE, Si X, Wilcove DS, Wu J, Yu M. (2016) Habitat fragmentation and biodiversity conservation: key findings and future challenges. *Landscape Ecology* 31: 219–227.

11. Wu Y, Si X, Chen C, Zeng D, Zhao Y, Li J, Ding P. (2016) Effects of dispersal abilities on community dynamics of breeding birds on the land-bridge islands in the Thousand Island Lake, China. *Biodiversity Science* 24: 1143–1153. [*in Chinese with English Abstract*][Cover article]
10. Pan X, Ding Z, Hu Y, Liang J, Wu Y, Si X, Guo M, Hu H, Jin K. (2016) Elevational pattern of bird species richness and its causes along a central Himalaya gradient, China. *PeerJ* 4: e2636.
9. Si X, Baselga A, Ding P. (2015) Revealing beta-diversity patterns of breeding bird and lizard communities on inundated land-bridge islands by separating the turnover and nestedness components. *PLoS ONE* 10: e0127692.
8. Shen G, Pimm SL, Feng C, Ren G, Liu Y, Xu W, Li J, Si X, Xie Z. (2015) Climate change challenges the current conservation strategy for the giant panda. *Biological Conservation* 190: 43–50.
7. Goodale E, Ding P, Liu X, Martínez A, Si X, Walters M, Robinson SK. (2015) The structure of mixed-species bird flocks, and their response to anthropogenic disturbance, with special reference to East Asia. *Avian Research* 6: 14.
6. Xu G, Hu G, Si X, Lu G, Yu M, Ding P, Hong L. (2015) Habitat fragmentation and biodiversity research on Thousand Island Lake. *Forest Inventory and Planning* 40: 42–48. [*in Chinese with English Abstract*]
5. Si X, Pimm SL, Russell GJ, Ding P. (2014) Turnover of breeding bird communities on islands in an inundated lake. *Journal of Biogeography* 41: 2283–2292.
4. Si X, Kays R, Ding P. (2014) How long is enough to detect terrestrial animals? Estimating the minimum trapping effort on camera traps. *PeerJ* 2: e374.
3. Si X, Ding P. (2014) Camera trap survey of population dynamics of mammals and birds in Gutianshan Forest Dynamics Plot, eastern China. *Biodiversity Science* 22: 819–822. [*in Chinese*]
2. Xu A, Si X, Wang Y, Ding P. (2014) Camera traps and its minimum trapping effort for ground-dwelling mammals in fragmented habitats in the Thousand Island Lake, Zhejiang Province. *Biodiversity Science* 22: 764–772. [*in Chinese with English Abstract*]
1. Si X, Ding P. (2011) History, status of monitoring land birds in Europe and American and counter-measures of China. *Biodiversity Science* 19: 303–310. [*in Chinese with English Abstract*]

### Popular Science and Other Publications in Chinese (Partial)

8. Si X. (2017) Snowy owl: the snowfield hunter. *China Nature* 2017(5): 8–11.
7. Si X. (2017) Fallen juvenile birds: adopt or not? *China Nature* 2017(1): 48–50.
6. Si X. (2017) Black muntjac and Elliot's pheasant in Gutianshan. *Forest & Humankind* 2017(1):88–93.
5. Si X. (2015) Wildlife in Gutianshan from camera traps. *China Nature* 2015(6): 42–45.
4. Si X. (2014) Dry Tortugas National Park: home of the sooty tern. *China Nature* 2014(6): 76–81.
3. Si X. (2014) Apply for the China Scholarship Council fund. *China Postgraduates* 2014(9): 58–59.
2. Si X. (2014) How to track the latest references. *China Postgraduates* 2014(6): 32–33.
1. Si X. (2014) *Species Turnover and Beta Diversity of Breeding Bird Communities in Fragmented Habitats*. PhD dissertation, Zhejiang University, Hangzhou.

## PROFESSIONAL SERVICES AND AFFILIATIONS

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- Reviewer For journals: *Austral Ecology*, *Avian Research*, *Biodiversity and Conservation*, *Biodiversity Science*, *Biological Conservation*, *Ecography*, *Ecology and Evolution*, *Ecology Letters*, *Functional Ecology*, *Global Ecology and Biogeography*, *Integrative Zoology*, *Journal of Biogeography*, *Journal of Plant Research*, *Nature Ecology and Evolution*, *PeerJ*.
- Member China Ornithological Society, Ecological Society of America, Ecological Society of Zhejiang Province, International Biogeography Society, International Ornithologists' Union, International Society of Zoological Sciences, Zhejiang Zoological Society

## TEACHING EXPERIENCE

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- Teaching Undergraduate Summer Biology Field Practice, Tianmushan and Thousand Island Lake,  
Assistant China: 2009, 2010, 2012, 2014, 2015, 2016

## PRESENTATIONS

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### Oral Presentations      ‡Plenary talk      †Invited talk

27. †China Ornithological Congress, Xi'an, China. (2017/09)
26. †Inner Mongolia University, School of Ecology and Environment, Hohhot, China (2017/09)
25. †Fudan University, School of Life Sciences, Shanghai, China. (2017/08)
24. †International Congress of Ecology, Beijing, China. (2017/08)
23. Biennial Conference of the International Biogeography Society, Tucson, Arizona, USA. (2017/01)
22. †The 2016 China-US Biodiversity Workshop, Hangzhou, China. (2016/10)
21. †Kingfisher Forum of Graduate in Ornithology of China, Beijing, China. (2016/08)
20. Ecological Society of America Annual Meeting, Fort Lauderdale, Florida, USA. (2016/08)
19. †International Conference on Island Evolution, Ecology, and Conservation, Azores, Portugal. (2016/07)
18. †International Biogeography Society Special Meeting, Beijing, China. (2016/05)
17. Cross-strait Ornithological Conference, Taichung (Taiwan). (2016/04)
16. †Sun Yat-sen University, School of Life Sciences, Guangzhou, China. (2015/12)
15. ‡†China Ornithological Congress, Hefei, China. (2015/11)
14. Ecological Society of America Annual Meeting, Baltimore, Maryland, USA. (2015/08)
13. National Conference of the China Zoological Society, Guangzhou, China. (2014/11)
12. National Conference on Wildlife Ecology and Resource Conservation, Guilin, China. (2014/11)
11. Symposium of Biodiversity Conservation and Sustainable Development, Zhoushan, China. (2014/10)
10. †Chinese Academy of Sciences, Institute of Botany, Beijing, China. (2014/08)
9. Forum of Zhejiang Scholars on Zoology, Lishui, China. (2014/05)
8. EAFES International Congress, Haikou, China. (2014/04)
7. China Ornithological Congress, Hangzhou, China. (2013/11)

6. Kingfisher Forum of Chinese Young Ornithologists Workshop, Hangzhou, China. (2013/11)
5. Kingfisher Forum of Chinese Young Ornithologists Workshop, Lanzhou, China. (2011/08)
4. National Symposium on Conservation and Sustainable Use of Biodiversity, Xiamen, China. (2010/11)
3. International Forum on Biodiversity Monitoring, Nanjing, China. (2010/06)
2. Cross-strait Symposium on Forest Dynamic Plots, Zhaoqing, China. (2009/11)
1. Kingfisher Forum of Chinese Young Ornithologists Workshop, Harbin, China. (2009/08)

## Poster Presentations

6. Biennial Conference of the International Biogeography Society, Bayreuth, Germany. (2015/01)
5. National Conference on Wildlife Ecology and Resource Conservation, Guilin, China. (2014/11)
4. International Ornithological Congress, Tokyo, Japan. (2014/08)
3. Symposium of Wildlife Biodiversity Monitoring on Camera Traps, Beijing, China. (2014/07)
2. Student Forum on Sci-Tech Innovation of College of Life Sciences at ZJU, Hangzhou, China. (2012/05)
1. Student Conference on Conservation Science, Cambridge, UK. (2012/03)

## SPECIALIZED TRAINING

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- 2017 Path analysis and structural equation modelling for ecologists. Bill Shipley (University of Sherbrooke), 2017/05/01–05, Sherbrooke, Quebec, Canada
- 2016 Marie Skłodowska-Curie Individual Fellowship Masterclass. Aarhus University, 2016/05/10–12, Aarhus, Denmark
- 2016 Phylogenies in Ecology (Ecophylogenetics). Marc Cadotte (University of Toronto), 2016/03/29–04/02, Guangzhou, China
- 2014 The 2nd International Training Course on Frontier in Animal Ecology and Conservation Biology. Organized by SCB-China, ISZS and IOZ CAS, 2014/11/22–12/01, Beijing, China
- 2014 Functional and Phylogenetic Diversity. Nathan Swenson (Michigan State University), 2014/09/28–29, Beijing, China
- 2013 Metapopulation Capacity Analyses (Mathematica *v9*). Gareth Russell (New Jersey Institute of Technology), 2013/01/28–30, Durham, North Carolina, USA
- 2013 Survival Rate Analyses and Banding Training of the Sooty Tern *Onychoprion fuscatus*. Stuart Pimm (Duke University), 2013/03/11–14, Dry Tortugas, Florida, USA
- 2010 Wildness First Aid. Lloyd Figgins (EarthWatch Institute), 2010/10/07–10, Kaihua, China
- 2009 Spatial Analysis Biostatistics. Pierre Legendre (University of Montreal), 2009/10/01–05, Beijing, China
- 2009 Linear Regression. Pierre Legendre (University of Montreal), 2009/09/10–15, Beijing, China
- 2009 Mathematical Statistics, R Programming Language and Multivariate Statistical Analyses. Jiangshan Lai, Jinlong Zhang (Institute of Botany, Chinese Academic of Science), Yanping Chen (Renmin University of China), 2009/09/05–09, Beijing, China

## SYNERGISTIC ACTIVITIES

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- 2017 Session Organizer. *Functional and Phylogenetic Diversity of Bird Communities*, the 14th China Ornithological Congress, Xi'an, China
- 2016 Invited Speaker. Liuhu Primary School, Jinhua, China
- 2016 Invited Speaker. Chuyang Voice of the 60th Anniversary of Zhejiang Normal University, Jinhua, China
- 2015 Session Presider. Contributed Oral Session 66: *Community Pattern and Dynamics II*, the 100th Ecological Society of America Annual Meeting, Baltimore, Maryland, USA
- 2014–2015 Conference Coordinator. International Workshop of Habitat Fragmentation and Biodiversity Conservation in the Thousand Island Lake, Chun'an, Hangzhou, China  
Attendees: Richard T. Corlett, Raphael K. Didham, Robert D. Holt, Marcel Holyoak, Lin Jiang, William F. Laurance, Stuart L. Pimm, Scott K. Robinson, Sabrina E. Russo, David S. Wilcove, Jianguo Wu, etc.
- 2013 Assistant Conference Organizer. The 9th Kingfisher Forum of Chinese Young Ornithologists Workshop, Hangzhou, China
- 2013 Volunteer. Sooty Tern (*Onychoprion fuscatus*) Project of US National Park Service, Dry Tortugas, Florida, USA
- 2011 Invited Guest. Chuyang Forum of Zhejiang Normal University, Jinhua, China
- 2011 Invited Speaker. Yiting High School, Yiwu, China
- 2008 Beijing Olympic Torch Escort. Beijing Olympic Torch Relay Center, Shaoxing, China
- 2006–2007 Deputy Director. The Secretariat of Student Council of Chuyang Honors College at Zhejiang Normal University, Jinhua, China
- 2004 Commencement speaker. The 2004 Graduation Ceremony of Yiting High School, Yiwu, China

## MEDIA COVERAGE

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- Webpage U of T News (What happens to wildlife when humans alter their habitat? 2017/02/21)  
Newspaper The Varsity (Beyond the flood. 2017/03/05)

## PROFESSIONAL REFERENCES

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- Ping Ding, Professor, Dean of Department of Biological Sciences  
Zhejiang University, College of Life Sciences  
Email: dingping@zju.edu.cn Tel: +86-571-88206468  
Web: <http://person.zju.edu.cn/pingding>
- Stuart L. Pimm, Doris Duke Professor of Conservation Ecology  
Duke University, Nicholas School of the Environment  
Email: stuartpimm@me.com Tel: +1-919-613-8141  
Web: <http://nicholas.duke.edu/people/faculty/pimm>
- Marc W. Cadotte, TD Professor of Urban Forest Conservation and Biology  
University of Toronto, Department of Biological Sciences  
Email: mcadotte@utsc.utoronto.ca Tel: +1-416-208-5105  
Web: <http://www.utsc.utoronto.ca/biosci/marc-cadotte>