

# Yichao Zeng 曾逸超

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## *Employment*

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**University of Arizona**, Tucson, AZ, USA Feb. 2024 – Present

- Postdoc at Dept. of Ecology & Evolutionary Biology (with Régis Ferrière).

**University of Arizona**, Tucson, AZ, USA Aug. 2019 – Dec. 2023

- Teaching assistant/associate at Dept. of Ecology & Evolutionary Biology

**University of Florida**, Gainesville, FL, USA Aug. 2017 – May 2019

- Research assistant at Dept. of Wildlife Ecology & Conservation (with Vanessa Hull).

## *Education*

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**University of Arizona**, Tucson, AZ, USA Aug. 2019 – Dec. 2023

**Ph.D., Ecology and Evolutionary Biology.**

- Committee: John J. Wiens (Chair), Judith L. Bronstein, Michael J. Sanderson, Régis Ferrière, Paulo R. Guimarães Jr.

**Universidade de São Paulo**, Brazil Sep. 2021 – Jan. 2022

- Visiting Ph.D. student focusing on theoretical ecology and ecological networks, with Paulo R. Guimarães Jr.

**University of Florida**, Gainesville, FL, USA Aug. 2017 – May 2019

**M.Sc., Wildlife Ecology and Conservation.**

- Thesis: Medicinal herb collection and wildlife conservation: qualitative and quantitative inferences from participatory research in Wolong Nature Reserve.
- Committee: Vanessa Hull (Chair), Robert A. McCleery, Mathieu Basille, Jindong Zhang.

**Peking University**, Beijing, China Sep. 2013 – July 2017

**B.S., Biological Science.**

- Thesis: Phylogeography of the Indochinese and the keeled box turtles (*Cuora* spp.).
- Advisor: Dr. Shu-jin Luo.

## *Research Experience*

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**University of Arizona**, Tucson, AZ Aug. 2019 – Present

**Ph.D. Candidate**, *Department of Ecology and Evolutionary Biology.*

**University of Florida**, Gainesville, FL

Aug. 2017 – May 2019

**Graduate Research Assistant**, *Department of Wildlife Ecology and Conservation*.

- Used field surveys to look at the effects of anthropogenic activities on wildlife occurrence in protected areas.

**Peking University**, Beijing, China

Oct. 2015 – July 2017

**Undergraduate Research Assistant**, *School of Life Sciences*.

- Used wet lab and dry lab techniques to look at intraspecific phylogenetic structures of freshwater turtles.

**University of California, Davis**, Davis, CA

June 2016 – Sept. 2016

**Undergraduate Intern**, *Department of Entomology and Nematology*.

- Used manipulative greenhouse experiment to look at priority effects in monarch-milkweed interactions.

**Peking University**, Beijing, China

Sept. 2014 – Mar. 2015

**Undergraduate Research Assistant**, *School of Life Sciences*.

- Morphologically identified butterfly specimen collected in Sichuan, China.

### ***Other Responsibilities & Activities***

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- Graduate Student Representative. Dept. of Ecology & Evolutionary Biology, U. Arizona. Jan. 2022 – Dec. 2022.
  - Advisor, Palm Drive (棕榈大道, [www.palmdrive.cn](http://www.palmdrive.cn)). Assisting students with applications to Ph.D. programs in ecology and/or evolutionary biology. Mar. 2020 – Present.
  - Fieldwork Leader. Beijing Butterfly Monitoring Project, Peking University. 2017.
  - Volunteer. Monitoring Milkweed-Monarch Interactions for Learning and Conservation (MMMILC) Project, UC Davis. 2016.
  - Instructor. Beijing Primary and Middle School Birding Competition, Dongcheng Youth S&T Museum, Beijing, China. 2016.
  - 1st Award. Beijing College Birding Competition. China Biodiversity Conservation and Green Development Foundation. 2015.
  - Volunteer. Chongzuo Biodiversity Research Institute, Peking University. 2015.
  - Volunteer. Lab of Population Genetics, Peking University. 2015.
  - Person in Charge. GreenLife Society, Peking University. 2014 – 2015.

### ***Preprints***

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Zeng Y., and D. H. Hembry. 2023. Co-evolution induced stabilizing and destabilizing selection shapes species richness in clade co-diversification. *bioRxiv*.

<https://doi.org/10.1101/2023.11.29.569146>

## Peer-reviewed Publications

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Yang, L. H., K. Swan, E. Bastin, J. Aguilar, M. Cenzer, A. Codd, N. Gonzalez, T. Hayes, A. Higgins, X. Lor, C. Macharaga, M. McMunn, K. Oto, N. Winarto, D. Wong, T. Yang, N. Afridi, S. Aguilar, A. Allison, A. Ambrose-Winters, E. Amescua, M. Apse, N. Avoce, K. Bastin, E. Bolander, J. Burroughs, C. Cabrera, M. Candy, A. Cavett, M. Cavett, L. Chang, M. Claret, D. Coleman, J. Concha, P. Danzer, J. DaRosa, A. Dufresne, C. Duisenberg, A. Earl, E. Eckey, M. English, A. Espejo, E. Faith, A. Fang, A. Gamez, J. Garcini, J. Garcini, G. Gilbert-Igelsrud, K. Goedde-Matthews, S. Grahm, P. Guerra, V. Guerra, M. Hagedorn, K. Hall, G. Hall, J. Hammond, C. Hargadon, V. Henley, S. Hinesley, C. Jacobs, C. Johnson, T. Johnson, Z. Johnson, E. Juchau, C. Kaplan, A. Katznelson, R. Keeley, T. Kubik, T. Lam, C. Lansing, A. Lara, V. Le, B. Lee, K. Lee, M. Lemmo, S. Lucio, A. Luo, S. Malakzay, L. Mangney, J. Martin, W. Matern, B. McConnell, M. McHale, G. McIsaac, C. McLennan, S. Milbrodt, M. Mohammed, M. Mooney-McCarthy, L. Morgan, C. Mullin, S. Needles, K. Nunes, F. O’Keeffe, O. O’Keeffe, G. Osgood, J. Padilla, S. Padilla, I. Palacio, V. Panelli, K. Paulson, J. Pearson, T. Perez, B. Phrakonekham, I. Pitsillides, A. Preisler, N. Preisler, H. Ramirez, S. Ransom, C. Renaud, T. Rocha, H. Saris, R. Schemrich, L. Schoenig, S. Sears, A. Sharma, J. Siu, M. Spangler, S. Standefer, K. Strickland, M. Stritzel, E. Talbert, S. Taylor, E. Thomsen, K. Touns, K. Tran, H. Tran, M. Tuqiri, S. Valdes, G. VanVorhis, S. Vue, S. Wallace, J. Whipple, P. Yang, M. Ye, D. Yo, and **Y. Zeng**, 2022. Different factors limit early- and late-season windows of opportunity for monarch development. *Ecology and Evolution*, 12, pp. e9039. <https://doi.org/10.1002/ece3.9039>.

Sanderson, M. J., A. Búrquez, D. Copetti, M. M. McMahon, **Y. Zeng**, and M. F. Wojciechowski. 2022. Origin and diversification of the saguaro cactus (*Carnegiea gigantea*): a within-species phylogenomic analysis. *Systematic Biology*, 71, pp. 1178–1194. <https://doi.org/10.1093/sysbio/syac017>.

**Zeng, Y.**, and J. J. Wiens. 2021. Do mutualistic interactions last longer than antagonistic interactions? *Proceedings of the Royal Society, Series B*, 288, pp. 20211457. 20211457. <https://doi.org/10.1098/rspb.2021.1457>.

Hou, J., V. Hull, T. Connor, H. Yang, J. Gao, F. Zhao, Y. Liao, S. Chen, J. Huang, **Y. Zeng** and S. Zhou. 2021. Scent communication behavior by giant pandas. *Global Ecology and Conservation*, 25, p.e01431. <https://doi.org/10.1016/j.gecco.2020.e01431>.

**Zeng, Y.**, and J. J. Wiens. 2021. Species interactions have predictable impacts on diversification. *Ecology Letters*, 24(2), pp.239-248. <https://doi.org/10.1111/ele.13635>.

Hou, J., Y. He, H. Yang, T. Connor, J. Gao, Y. Wang, **Y. Zeng**, J. Zhang, J. Huang, B. Zheng and S. Zhou. 2020. Identification of animal individuals using deep learning: A case study of giant panda. *Biological Conservation*, 242, p.108414. <https://doi.org/10.1016/j.biocon.2020.108414>.

Zeng, Y., J. Zhang. and V. Hull. 2019. Mixed-method study on medicinal herb collection in relation to wildlife conservation: the case of giant pandas in China. *Integrative Zoology*, 14(6), pp.604-612. <https://doi.org/10.1111/1749-4877.12381>.

## ***Other Publications***

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### **Newspaper articles:**

Zeng Y., How do interactions between different species impact the generation of biodiversity? China Green Times (中国绿色时报) . February 25, 2021. p.4. Title in original language: 不同物种间的相互作用如何影响生物多样性的形成? (An introduction to Zeng & Wiens 2021 *Ecol. Lett.*, geared toward the general public.)  
<http://www.greentimes.com/greentimepaper/page/1/2021-02-25/04/28421614212831452.pdf>

## ***Awards, Grants & Scholarships***

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Finalist, Ernst Mayr Award, the Society of Systematic Biologists (SSB). 2023.

Galileo Circle Scholarship, Department of Ecology & Evolutionary Biology, University of Arizona (\$1000). 2023.

William A. Calder III Memorial Scholarship, Department of Ecology & Evolutionary Biology, University of Arizona (a total of \$10000 for two years). 2022 & 2023.

Robert W. Hoshaw Memorial Award, Department of Ecology & Evolutionary Biology, University of Arizona (The oldest and most prestigious departmental award for EEB grad students, \$1823.83). 2022.

Graduate Student Awards - Excellence in Scholarship, University of Arizona College of Science (\$100). 2021.

Tropical Conservation and Development Field Research Grant, Center for Latin American Studies, University of Florida (\$2,000). Research proposal entitled "Modeling distribution of giant pandas in a coupled human and natural system using GIS and participatory mapping". 2018.

Jennings Scholarship, University of Florida (\$1,350). 2018.

Graduate Student Council Travel Grant, Univ. of Florida (\$350). 2018.

Wildlife Graduate Student Association Student Travel Award, Univ. of Florida (\$250). 2018.

Institute of Food and Agricultural Sciences Travel Grant, Univ. of Florida (\$250). September 2018.

Institute of Food and Agricultural Sciences Travel Grant, Univ. of Florida (\$250). June 2018.  
Wildlife Ecology and Conservation Field Research Scholarship, Univ. of Florida (\$2,000).  
2017.

Undergraduate Summer Research Grant. School of Life Sciences, Peking University  
(equivalent to \$4,200). 2016.

Undergraduate Student Conference Travel Grant. School of Life Sciences, Peking University  
(CNY ¥1,607). 2016.

### ***Contributed talks***

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**Zeng Y**, Hembry D, and Wiens J. Co-evolution induced stabilizing and destabilizing selection shapes species richness in clade co-diversification. Finalist presentation as part of the Ernst Mayr Award Symposium, the Evolution Meeting. Albuquerque, NM. 2023.

<https://www.youtube.com/watch?v=J5haS96clwQ&t=1s>.

**Zeng Y**, Wiens J. Species interactions have predictable effects on diversification. Evolution Meeting. Online. 2021.

**Zeng Y**, Zhang J, Hull V. Modeling changes in giant panda distribution in a coupled human and natural system. Student Conference on Conservation Science, American Museum of Natural History. New York, NY, USA. 2018.

**Zeng Y**, Zhang J, Hull V. Participatory approaches for quantitative analysis in wildlife research. Ecological Society of America Annual Meeting. New Orleans, LA, USA. 2018.

### ***Invited talks***

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**Zeng Y**. Testing hypotheses that link macroevolution and species interactions. Graduate program in ecology, University of São Paulo, Brazil. 2021.

[https://www.youtube.com/watch?v=NRuPptiqW\\_M&t=11s](https://www.youtube.com/watch?v=NRuPptiqW_M&t=11s)

**Zeng Y**. Species interactions: from local-scale processes to macroevolutionary patterns. Lab of H  l  ne Morlon,   cole Normale Sup  rieure, France. 2023.

### ***Posters***

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**Zeng Y**, Wiens J. Macroevolution of species interactions: the biotic-abiotic emergence of specificity, partner shifts, and network dynamic. Congress of the European Society for Evolutionary Biology. Prague, Czech Republic. 2022.

Chen J, Chen X, Liu H, Shen Y, **Zeng Y**, Yin L. 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 Biodiversity Conference. Kunshan, China. 2016.

### ***Work Presented by Colleagues***

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Gaillard D, **Zeng Y**, Chen H, Lin L, Shi H, Luo S. Eight foot and flower power turtles: a phylogenetic and phylogeographic approach to conservation. 16th Annual Symposium on the Conservation and Biology of Tortoises and Freshwater Turtles. Fort Worth, TX, USA. 2018.

### ***Journal Review***

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Annals of Botany, PeerJ, Communications Biology

### ***Teaching Experience***

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**University of Arizona**, Tucson, AZ, USA

Aug. 2019 – Present

**Graduate Teaching Assistant.**

Course: Genetics (Fall 2019, Fall 2020, & Summer 2021), Introductory Biology Lab (Spring 2020), Diversity of Life (Summer 2020), Animal Sexual Behavior (Spring 2021 & Fall 2021). Marine Biology (Spring 2021, Fall 2021, Spring 2022, Fall 2022), Evolutionary Biology (Spring 2023).

**Peking University**, Beijing, China

Sept. 2015 – July 2016

**Undergraduate Teaching Assistant**, *School of Life Sciences*.

Course: Scientific Research Professional Skills.

### ***Workshops attended***

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Species distribution modeling workshop, Peking University-ETH Zürich, Beijing, China, 2018

### ***Additional Information***

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- TOEFL (2018, internet-based):112 (speaking score: 26)
- GRE (2016): Quantitative- 170 (96th percentile), Verbal- 154 (65th percentile), Writing- 3.5
- Driver's license: Class E (United States), C1 (P.R. China, Manual)