

# JOHN S. PARK

## PERSONAL INFORMATION

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GitHub repository: <https://github.com/john-s-park>

Current academic address: 400 Zoology, 1101 E. 57<sup>th</sup> Street, Chicago, IL 60637, USA

## APPOINTMENTS

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2021-2023 **Marie Skłodowska-Curie Postdoctoral Fellow**, University of Oxford

## EDUCATION

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expected 07/2021 **PhD**, University of Chicago  
Thesis: “*Life-history Evolution in Cyclically Fluctuating Environments*”  
Advisor: *Dr. J. Timothy Wootton*  
Committee: *Dr. Gregory Dwyer, Dr. Mercedes Pascual, Dr. Cathy Pfister, Dr. Trevor Price*

2014 **BSc**, Yale University  
Thesis: “*Trophic link of Daphnia life-history divergence and temporal phytoplankton community dynamics*”  
Advisors: *Dr. David Post, Dr. Stephen Stearns*

## PEER-REVIEWED PUBLICATIONS

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**Park, J.S.** (2019) Cyclical environments drive variation in life history strategies: a general theory of cyclical phenology. *Proceedings of the Royal Society B*, 286 (1898).  
<https://doi.org/10.1098/rspb.2019.0214>

**Park, J.S.** and Post, D.M. (2018). Evolutionary history of *Daphnia* drives divergence in consumption preference and alters temporal community dynamics of producers. *Ecology & Evolution*, 8 (2), 859-865. <https://doi.org/10.1002/ece3.3678>

**Park, J.S.** (2017). A race against time: habitat alteration by snow geese prunes the seasonal sequence of mosquito emergence in a subarctic brackish landscape. *Polar Biology*, 40 (3), 553-561. <https://doi.org/10.1007/s00300-016-1978-y>

<Manuscripts in review>

**Park, J.S.** and Post, E.S. *in review*. Phenological patterns and their evolution on a cyclical Earth.

<Manuscripts in prep>

**Park, J.S.** and Wootton, J.T. *in prep*. Slower environmental cycles increase life history variation within populations.

**Park, J.S.** and Iles, D.T. *in prep.* Evolutionary fitness of stage-structured populations in periodic, autocorrelated, and stochastic environments.

## GRANTS & FELLOWSHIPS

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2021-2023	<b>Marie Skłodowska-Curie Individual Fellowship</b> Marie Skłodowska-Curie Actions, European Commission	
2019-2021	<b>“Eco-evolutionary response to the scale of temporal environmental fluctuation”</b> National Science Foundation (NSF-OCE #1851489)* <i>*Note: Award was under adviser JT Wootton’s name since I could not have PI status for an NSF grant as a graduate student, but I designed the research, and wrote &gt;70% of the proposal</i>	\$459,600USD
2018	<b>Donald Steiner Award Fellow for External Collaboration</b> Biological Sciences Division, University of Chicago <i>(funding for collaborating with Dr. Eric Post at University of California-Davis on theory of seasonal phenological diversity)</i>	\$1,242USD
2015-2018	<b>DoE GAANN Fellow</b> United States Department of Education, Graduate Assistance in Areas of National Need	\$68,000USD
2016	<b>Henry Hinds Graduate Student Research Award for Evolutionary Biology</b> Committee on Evolutionary Biology, University of Chicago <i>(funding for dissertation field work in the US Pacific Northwest coastline sites)</i>	\$2,661USD
2013	<b>Environmental Fellowship for Research in Ecology and Evolutionary Biology</b> School of the Environment, Yale University	\$2,000USD
2012	<b>Sherwood E. Silliman Fellow</b> Silliman College, Yale University	\$2,000USD
2012	<b>Research Experiences for Undergraduates</b> National Science Foundation (NSF-DEB #1019613)	\$7,100USD
2011	<b>Benjamin Silliman Fellow</b> Silliman College, Yale University	\$1,000USD

## AWARDS

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2020	<b>Finalist, Center for Population Biology Fellowship</b> University of California, Davis <i>One of top 3 candidates</i>
2018	<b>Lotka Prize</b> Ecological Society of America <i>Best theory poster</i>
2017	<b>Wayne C. Booth Prize</b> University of Chicago

- Teaching award given to only 4 graduate students across the entire university; nominated by students and faculty*
- 2016 **NSF Graduate Research Fellowship Honorable Mention**  
National Science Foundation
- 2014 **William R. Belknap 1872 Prize**  
Yale University  
*Awarded to 1 graduating student at Yale University for “Excellence in Biology”*
- 2014 **Distinction in Major, Intensive Track**  
Yale University, Ecology and Evolutionary Biology
- 2014 **Elected Member**  
The Explorers Club, NYC
- 2009 **“Canada’s Top 20 Under 20”**  
The Globe and Mail (Canadian national newspaper)  
*Awarded to 20 students under the age of 20 across Canada. Awarded for spearheading Canadian Arctic ocean conservation advocacy work*

## PRESENTATIONS

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### \*Invited Speaker

- Park, J.S.** (2020). Slower environmental fluctuations increase life-history variation in populations. *Ecological Society of America, Virtual Conference.*
- Park, J.S.** (2019). Experimental test of life history evolution in cyclical and stochastic environments: implications for phenology and shifting cycles. *Ecological Society of America, Louisville, KY, USA.*
- \*Park, J.S.** (2018). Eco-evolutionary drivers of seasonal life histories. *University of California, Davis, CA, USA.*
- Park, J.S.,** Dwyer, G., and Wootton, J.T. (2018). Evolution of life histories in cyclical environments: Theory and test in a tidepool copepod. *Ecological Society of America, New Orleans, LA, USA.*
- Park, J.S.** (2018) Life History Evolution in Cyclical Environments. *University of Chicago, Chicago, IL, USA.*
- \*Park, J.S.** (2017). Phenological diversity and ecological interactions: a story of snow geese and tundra mosquitoes. Symposium on Arctic, Antarctic, Alpine Insects: Research from the Earth’s Coldest and Most Rapidly Changing Environments, *Entomological Society of America, Denver, CO, USA.*
- \*Park, J.S.** (2016). Watching mosquitoes through the season: Questions about the temporal dimension in nature. *The Explorers Club Symposium, Salt Spring Island, BC, Canada.*
- Park, J.S.** (2014). Life history divergence in *Daphnia ambigua* and its multitrophic cascade effects on temporal community composition patterns in phytoplankton. *Yale University, New Haven, CT, USA.*

## TEACHING

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09-12/2019 **Ecology & Conservation**, University of Chicago

- Teaching assistantship with responsibilities including: running laboratory exercises and workshop modules, organizing and running 3 field trips, hosting weekly office hours, running exam review sessions, grading assignments and exams, and giving lectures.
- 01-03/2017 **Marine Ecology**, University of Chicago  
Teaching assistantship with responsibilities including: hosting weekly office hours, running exam review sessions, mentoring term paper writing, contributing to exam and assignment design, grading, and giving lectures.
- 09-12/2016 **Ecology & Conservation**, University of Chicago  
Teaching assistantship with responsibilities including: running laboratory exercises and workshop modules, organizing and running 3 field trips, and grading assignments and exams.
- 08-11/2014 **Australia's Terrestrial Environment**, University of Queensland (AUS)  
Teaching assistantship with responsibilities including designing and running a week-long intensive field course on Fraser Island, QLD, and giving workshops and lectures.

## STUDENT SUPERVISION & MENTORING

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- 2018-2019: Dalton Hammond. Undergraduate project, University of Chicago  
2017-2019: Khashiff Miranda. Undergraduate project, University of Chicago  
2017-2018: *Sole official graduate student mentor for 12 BS thesis writers in the Department of Ecology and Evolution, University of Chicago*  
2017-2018: Zoe Dellaert. Undergraduate project, University of Chicago  
2017-2018: Mélusine Velde. Undergraduate project, University of Chicago  
2017-2018: Nora Spadoni. Undergraduate project, University of Chicago  
2016-2017: Ty Bowyer. Undergraduate project, University of Chicago

## OUTREACH

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- 07-08/2018 Designed and ran ecology-themed games and activities as part of a summer camp for 4-6<sup>th</sup> grade students at Restoration Ministries, an organization for families in poverty with recovering addicts, and at-risk young parents.
- 2016-2018 Worked with the Fisheries Department of the Makah Tribe in the Olympic region of Washington State, USA to involve high school students in field projects on marine ecology on Tatoosh Island and nearby coastal sites.
- 2016 Organized an aquatic ecology interactive exhibit showcasing biodiversity from the local region, and the impacts of climate change, with a group of graduate students and faculty members from the University of Chicago.
- 2011-2013 Recruited Manitoban First Nations middle and high school students to participate in hands-on research projects and basic data entry and analysis, while conducting remote Arctic field work near Churchill, Manitoba, Canada.

## RESEARCH AND PROFESSIONAL EXPERIENCE

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- 06-08/2015 **Visiting collaborator, University Centre in Svalbard**  
High Arctic seasonal ecology collaboration with Dr. Øystein Varpe in Svalbard, Norway
- 07/2014- **Visiting scholar in Mayfield Lab, University of Queensland, Australia**

- 02/2015 Field research in Western Australian York Gum woodlands and northern Queensland wet tropics, on projects investigating community assembly rules and competitive dynamics among native and invasive plant species
- 2012-2014 **Undergraduate Researcher in Davis Post Lab, Yale University**  
Eco-evolutionary feedbacks and trophic cascade effects in New England freshwater lakes system. Participated in field sample collections, lab work on stable isotopes and plankton cultures, and data analysis.
- 2011-2013 **Field Research Expedition in the Canadian Arctic, Hudson Bay Project**  
Field research on tundra small mammal population dynamics, migratory waterfowl life-history and habitat use, and mosquito seasonal phenology
- 2011-2012 **Curator of the Entomology Teaching Collection, Yale University**  
Prepared and identified arthropod specimens for the Department of Ecology and Evolutionary Biology at Yale University

## SKILLS

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- Advanced modelling, agent-based simulations, and statistical analysis in R
- High-performance UNIX based parallel cluster computing
- Version control software (GitHub)
- Typesetting (LaTeX, R Markdown)
- Vector graphics (Inkscape, Adobe Illustrator)

**Peer-reviewer for:** *Experimental Gerontology, Integrative and Comparative Biology, Journal of Animal Ecology, Oikos*