

DAKOTA E. MCCOY  
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#### ACADEMIC POSITIONS

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<b>Stanford University, Stanford, CA, USA.</b> Stanford Science Fellow, Materials Science & Biology	Fall 2021-present
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#### EDUCATION

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<b>Harvard University, Cambridge, MA, USA.</b> PhD in Evolutionary Biology	2021
<b>Oxford University, Oxford, UK.</b> MPhil in Environmental Policy	2015
<b>Yale University, New Haven, CT, USA</b> BS in Biology	2013

#### AWARDS AND GRANTS (SELECTED)

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<b>Trail-Crisp Medal for Biological Microscopy</b>	2021
<b>Stanford Science Fellowship</b>	2021-present
<b>Department of Defense NDSEG Graduate Fellowship</b> (Army Research Office)	2016-2021
<b>Rhodes Scholarship</b>	2013-15

#### RESEARCH (SUSTAINABILITY, BIOLOGY, & APPLIED PHYSICS)

##### Overview and Impact

- work will be featured in a forthcoming United Nations Booklet on bioinspiration for sustainable design
- published 12 papers with more than 230 citations in the scientific literature (see [Google Scholar](#))
- media coverage in the [New York Times](#), [Scientific American](#), [Nat. Geographic](#), [The Atlantic](#), and more.

##### Selected Projects

- **Super Black:** Demonstrated that birds-of-paradise and peacock spiders have structures which absorb >99% of light. With collaborators, fabricating bio-inspired coatings for solar panels. See McCoy et al. 2020, *Nature Communications*, [LINK](#). McCoy et al. 2019, *Proc. Royal Soc. B*, [LINK](#).
- **City Trees and Urban Ecology:** Assembled a dataset of over 5 million city trees from US cities with species, exact location, condition, and more. Forthcoming paper on biodiversity and equity
- **Biology of Pregnancy:** Showed that pregnancy hormones represent an arms race between maternal and fetal interests; explained the evolutionary drivers of common pregnancy complications. See McCoy and Haig 2020, *Trends in Ecology and Evolution*, [LINK](#).

#### POLICY EXPERIENCE (SELECTED)

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<b>Data Scientist, CovidLoanTracker</b> ( <a href="http://www.covidloantracker.com/">www.covidloantracker.com/</a> )	2020
Visualized data, analyzed data, and designed website for crowd-sourced effort to track the disbursement of government loans to >30,000 small businesses during Covid-19. Media coverage in <a href="#">CNN</a> , <a href="#">Forbes</a> ,	
<b>Researcher, Anaerobic Digestion for Clean Energy.</b> Cambridge, MA & Quapaw Nation, OK.	2019-20
Wrote a white paper on the feasibility of using microbes to break down food waste. Final Report: <a href="#">LINK</a> .	
<b>Research Assistant, Environmental Policy.</b> Oxford University, UK.	2014-15
Researched Corporate Environmental Management for Smith School of Enterprise and the Environment.	

#### SKILLS

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- Computer Science: familiar with Python and R; some experience with MATLAB
  - Hobbies: a cappella singing, running (top ten all-time at Yale in 60m hurdles), bookbinding

#### RAP MUSIC DISCOGRAPHY

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<b>Backup Dancer.</b> La Perla, Puerto Rico, USA.	2012
Uncredited appearance as backup dancer in music video by Puerto Rican reggaeton artist Audi.	