

# Judy P. Che-Castaldo

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## EDUCATION

- 2011 | Ph.D. in Behavior, Ecology, Evolution, and Systematics Program. University of Maryland, College Park, MD. Advisor: David W. Inouye
- 2005 | Tropical biology: An ecological approach (a research field course). Organization for Tropical Studies, San Pedro, Costa Rica
- 2004 | B.S. *magna cum laude* in Biology. The College of William and Mary, Williamsburg, VA. Research advisor: John P. Swaddle

## PROFESSIONAL APPOINTMENTS

- 2015 – | Research Scientist. Department of Conservation and Science, Lincoln Park Zoo, Chicago, IL
- 2012 – 2015 | Postdoctoral Fellow. National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD
- 2011 – 2012 | Postdoctoral Research Associate. Department of Plant Science and Landscape Architecture, University of Maryland (UMD), College Park, MD

## PUBLICATIONS

### Refereed Journal Articles & Book Chapters

- 2017 | Meyerson, R., D. Moore, S. Long, and J. Che-Castaldo, 2017. Welfare of captive polar bears and their value to in situ conservation efforts. In A. Butterworth, editor, *Marine Mammal Welfare: Human Induced Change in the Marine Environment and its Impacts on Marine Mammal Welfare*, pages 489–502. Springer
- 2016 | Che-Castaldo, J. P. and M. C. Neel, 2016. Species-level persistence probabilities for recovery and conservation status assessment. *Conservation Biology* **30**:1297–1306
- 2016 | Salguero-Gomez, R., O. R. Jones, C. R. Archer, C. Bein, H. de Buhr, *et al.*, 2016. COMADRE: A global data base of animal demography. *Journal of Animal Ecology* **85**:371–384
- 2016 | Evans, D. M., J. P. Che-Castaldo, D. Crouse, F. W. Davis, R. Epanchin-Niell, *et al.*, 2016. Species recovery in the United States: Increasing the effectiveness of the Endangered Species Act. *Issues in Ecology* **20**
- 2015 | Che-Castaldo, J. P. and D. W. Inouye, 2015. Interspecific competition between a non-native metal-hyperaccumulating plant (*Noccaea caerulescens*, Brassicaceae) and a native congener across a soil metal gradient. *Australian Journal of Botany, special issue on Ultramafic Ecosystems* **63**:141–151

- 2015 Salguero-Gomez, R., O. R. Jones, C. R. Archer, Y. M. Buckley, J. Che-Castaldo, *et al.*, 2015. The COMPADRE Plant Matrix Database: An open on-line repository for plant demography. *Journal of Ecology* **103**:202–218
- 2015 Wei, C. A., W. R. Burnside, and J. P. Che-Castaldo, 2015. Teaching socio-environmental synthesis with the case studies approach. *Journal of Environmental Studies and Sciences* **5**:42–49
- 2014 Che-Castaldo, J. P. and D. W. Inouye, 2014. Field germination and survival of experimentally introduced metal hyperaccumulator *Noccaea caerulea* (Brassicaceae) across a soil metal gradient. *The American Midland Naturalist* **171**:229–245
- 2013 Neel, M. C. and J. P. Che-Castaldo, 2013. Predicting recovery criteria for threatened and endangered plant species on the basis of past abundances and biological traits. *Conservation Biology* **27**:385–397
- 2013 Zeigler, S., J. P. Che-Castaldo, and M. C. Neel, 2013. Actual and potential use of population viability analysis in recovery of plant species listed under the U.S. Endangered Species Act. *Conservation Biology* **27**:1265–1278
- 2012 Che-Castaldo, J. P. and M. C. Neel, 2012. Testing surrogacy assumptions: Can threatened and endangered plants be grouped by biological similarity and abundances? *PLoS ONE* **7**:e51659
- 2011 Che-Castaldo, J. P. and D. W. Inouye, 2011. The effects of dataset length and mast seeding on the demography of *Frasera speciosa*, a long-lived monocarpic plant. *Ecosphere* **2**:art126
- 2005 LeClerc, J. E., J. P. K. Che, J. P. Swaddle, and D. A. Cristol, 2005. Reproductive success and developmental stability of eastern bluebirds on golf courses: Evidence that golf courses can be productive. *Wildlife Society Bulletin* **33**:483–493
- 2004 Swaddle, J. P., J. P. K. Che, and R. E. Clelland, 2004. Symmetry preference as a cognitive by-product in starlings. *Behaviour* **141**:469–478

## FUNDING

- 2017 – 2020 NSF Advances in Biological Informatics (DBI-1661342): An Open-Access Global Repository of Plant and Animal Demographic Data. PI with co-PIs R. Salguero-Gomez and O. R. Jones. \$615,858
- 2012 – 2015 Postdoctoral fellowship, National Socio-Environmental Synthesis Center \$55,000/yr
- 2009 – 2011 NSF Doctoral Dissertation Improvement Grant (DEB-0909909): Ecology and the use of a metal-hyperaccumulating plant in phytoremediation. PI with D. W. Inouye \$7,057
- 2008 Max and Vera Britton Environmental Science Award, and Cosmos Scholars Award, Cosmos Club Foundation \$1,420
- 2000 – 2008 Gates Millennium Scholar, Gates Foundation

**RECENT RESEARCH PRESENTATIONS****Oral Presentations**

- 2017 Che-Castaldo, J. P., S. Grow, and L. J. Faust. Contribution of zoos and aquariums to endangered species recovery in the United States. Ecological Society of America (ESA) Annual Meeting. Portland, OR
- 2016 Che-Castaldo, J. P. What have PVAs revealed across taxa about the health of our SSPs? Association of Zoos and Aquariums (AZA) annual conference. San Diego, CA
- 2016 Che-Castaldo, J. P., M. C. Neel, and C. J. Che-Castaldo. Testing the use of surrogate demographic information for endangered species recovery planning. North American Congress for Conservation Biology. Madison, WI
- 2016 Che-Castaldo, J. P. Improving the use of science in endangered species recovery planning. Lincoln Park Zoo. Chicago, IL
- 2015 Che-Castaldo, J. P., M. C. Neel, and C. J. Che-Castaldo. Testing the use of surrogate demographic information for endangered species management. ESA Annual Meeting. Baltimore, MD
- 2015 Che-Castaldo, J. P. Socio-environmental synthesis case study: Recovery under the U.S. Endangered Species Act. Association for Environmental Studies and Sciences Conference. San Diego, CA
- 2015 Che-Castaldo, J. P., M. C. Neel, and C. J. Che-Castaldo. Comparative demographic analysis to inform endangered species management. Demography Beyond the Population Symposium. Sheffield, UK
- 2014 Neel, M. C., H. Tumas, B. West, and J. P. Che-Castaldo. Evaluating landscape-level extinction risk: New tools for setting science-based recovery targets. ESA Annual Meeting. Sacramento, CA
- 2014 Che-Castaldo, J. P. and M. C. Neel. Assessing extinction risk based on biological traits and extrinsic threats. North American Congress for Conservation Biology. Missoula, MT
- 2014 Che-Castaldo, J. P. Synthesis of threat and demographic data to improve recovery planning. SESYNC. Annapolis, MD
- 2013 Neel, M. C. and J. P. Che-Castaldo. Improving endangered species recovery planning. ESA Annual Meeting. Minneapolis, MN
- 2013 Che-Castaldo, J. P. 2013. Synthesis of anthropogenic threat and demographic data to predict extinction risk. SESYNC. Annapolis, MD

**Invited Talks**

- 2017 Assessing the role of US zoos in biodiversity conservation. German Centre for Integrative Biodiversity Research (iDiv). Leipzig, Germany
- 2012 Quantifying changes in effective habitat availability and species extinction risk due to changes in habitat area and configuration. U.S. Fish and Wildlife Service. Arlington, VA
- 2012 Synthesis of anthropogenic threat and demographic data to predict extinction risk. National Science Foundation. Arlington, VA