HOLLY K. KINDSVATER

Dept. of Ecology, Evolution, and Natural Resources,
Rutgers University
14 College Farm Rd, New Brunswick, NJ 08901

Email: holly.kindsvater@rutgers.edu
Website: www.hollykindsvater.com
Phone: 347-754-2014

EDUCATION

2011 Ph.D. Ecology and Evolutionary Biology, Yale University
2008 M.S. Ecology and Evolutionary Biology, Yale University
2003 B.S. Marine Biology (Honors), University of California Santa Cruz

PROFESSIONAL APPOINTMENTS

2015- Asst. Research Professor, Dept. of Ecology, Evolution, & Natural Resources, Rutgers University
2013-2015 NSF Postdoctoral Fellow in Math and Biology, Simon Fraser University / UCSC
2012-2013 Visiting postdoctoral scholar, University of British Columbia, Zoology
2012 Postdoctoral fellow, Yale University, Ecology and Evolutionary Biology

GRANTS - SINCE PHD, AWARDED $887,433 (OF 1,688,000 IN TOTAL FUNDED)

2016- NCEAS - State of Alaska's Salmon and People working group: Consistency, causes, and consequences of declining size and age of Alaskan salmon (Invited participant)
2016- NSF-DEB/NERC: Informing population models with evolutionary theory to infer species' conservation status. **HK Kindsvater (Lead PI)**, M Mangel (UC Santa Cruz; co-PI), J Matthiopoulos (University of Glasgow; co-PI). *Total budget:* $1.55M *My share:* $749,433
2009 NSF Doctoral Dissertation Improvement Grant ($14,967)
2003 British Ecological Society Small Project Grant (£4,000)

FELLOWSHIPS AND AWARDS

2013 NSF Postdoctoral Research Fellowship in Math & Biology ($138,000)
2011 American Assoc. University Women Dissertation Fellowship (*declined due to early graduation)*
2005 STAR Fellowship; U.S. Environmental Protection Agency ($90,000)
1999 University of California Regent's Scholarship (*4 years tuition*)

PUBLICATIONS

19. **Kindsvater HK,** Palkovacs E. 2017. Predicting eco-evolutionary impacts of fishing on body size and trophic role of Atlantic cod. *Copeia. In press.*

18. **Kindsvater HK**, Reynolds JD, Sadovy de Mitcheson YJ, Mangel M. 2017. Selectivity matters: rules of thumb for management of plate-sized, sex-changing fish in the live reef food fish trade. *Fish and Fisheries. In press.* Peer reviewed preprint: https://doi.org/10.1101/098624

17. Dulvy NK, **Kindsvater HK.** 2017. The Future Species of Anthropocene Seas. *Conservation for the Anthropocene Ocean*, P Levin & M Coe (Eds). [Book Chapter]

16. Pardo SA, **Kindsvater HK,** Cuevas-Zimbrón E, Sosa-Nishizaki O, Pérez-Jiménez JC, & Dulvy NK. 2016. Growth, mortality, and relative extinction risk of a data-sparse devil ray. *Scientific Reports.* **6**, 33745

15. Pardo SA, **Kindsvater HK,** Reynolds JD, & Dulvy NK. 2016. Maximum intrinsic rate of population increase in sharks, rays, and chimaeras: the importance of survival to maturity. *Can. J. Fish. Aq. Sci.* **73**, 1159-1163

14. Weir L, **Kindsvater HK,** Young KA, & Reynolds JD. 2016. Sneaker males influence sexual size dimorphism in anadromous salmon. *American Naturalist.* **188**, 264-271

13. **Kindsvater HK,** Braun D, Otto SP, & Reynolds JD. 2016. Costs of reproduction explain the correlated evolution of semelparity and egg size: theory and a test with salmon. *Ecology Letters.* **19,** 687-696

12. **Kindsvater HK,** Mangel M, Reynolds JD, & Dulvy NK. 2016. Ten principles from evolutionary ecology essential for effective marine conservation. *Ecol Evol*. **6,** 2125–2138*
** Recommended by Faculty of 1000*

11. Dulvy NK & **Kindsvater HK.** 2015. Recovering the potential of coral reefs. *Nature.* **520,** 304-305 [Invited Perspective]

10. Paczolt K, Passow C, Declos P, **Kindsvater HK,** Jones A, & Rosenthal GG. 2015. Multiple mating and reproductive skew in pure and introgressed females of the live-bearing fish *Xiphophorus birchmanni. J. Heredity* **106**, 57-66

9. **Kindsvater HK** & Otto SP. 2014. The evolution of egg size in stage-structured populations. *American Naturalist* **184,** 143-155

8. **Kindsvater HK** & Alonzo SH. 2014. Females allocate differentially to offspring size and number in response to male effects on female and offspring fitness. *Proc. R. Soc. B* **281,** 20131981†
†*Covered by the Canadian Press wire service, Huffington Post, and the Vancouver Sun*

7. **Kindsvater HK** & Alonzo SH**.** 2013. Short-term dynamics of territory occupancy in an allopaternal species, the tessellated darter *Etheostoma olmstedi. J. Fish Biol.* **82**, 1398–1402

6. **Kindsvater HK**, Simpson SE, Rosenthal GG, & Alonzo SH. 2013. Male diet, female experience, and female size influence maternal investment in swordtails. *Behav. Ecol.* **24,** 691-697

5. **Kindsvater HK**, Rosenthal GG, & Alonzo SH. 2012. Maternal size and age shape offspring size in a live-bearing fish, *Xiphophorus birchmanni*. *PLoS ONE* **7**(11), e48473

4. **Kindsvater HK**, Bonsall MB, & Alonzo SH. 2011. Mortality associated with reproduction could explain variation in offspring size and number *J. Evol. Biol.* **24**, 2230–2240

3. **Kindsvater HK**, Alonzo SH, Mangel M, & Bonsall MB. 2010. Effects of age- and state-dependent allocation on offspring size and number. *Evol. Ecol. Res.* **12,** 327-346

2. Alonzo SH & **Kindsvater HK**. 2008. Life History Patterns. *General Ecology.* Vol. 3 *Encyclopedia of Ecology*, SE Jorgensen & BD Fath (Eds) pp. 2175-2180 Elsevier, Oxford UK [Book Chapter]

1. Mangel M, **Kindsvater HK**, & Bonsall MB. 2007. Evolutionary analysis of life span, competition, and adaptive radiation, motivated by the Pacific rockfishes (*Sebastes*). *Evolution* **61,** 1204-1224

TEACHING

2016 Guest lecture: Marine Conservation Ecology, Columbia University
2015 Workshop Instructor: Introduction to Linear Mixed-Effects Models in R, SFU
2014 Workshop Instructor: Introduction to Statistics in R, Simon Fraser University

2013 Course Instructor: Science and Sustainability, Univ. British Columbia
2012 Tutor and editorial consultant: Biostatistics, Univ. British Columbia
2011 Teaching Fellow: Reproduction and Development Lab, Yale University
2008 Teaching Fellow: Diversity of Life, Yale University
2007 Teaching Fellow: Ecology, Evolution and Behavior, Yale University

INVITED SEMINARS

2016 The ecology of marine life histories: Anadromy, hermaphroditism, and global change. Northeastern University, Boston, MA
2016 The ecology of marine life histories. Stony Brook University, Stony Brook, NY
2016 Linking models of reproductive allocation to population dynamics of marine species. University of Sheffield, Sheffield, UK
2016 Linking reproductive behavior to population dynamics in fishes. Southern Connecticut State University, New Haven, CT
2015 From demography to diversity in fishes. University of Michigan, Ann Arbor, MI
2015 The ecology and evolution of life histories in the sea. Florida State University, Tallahassee, FL
2015 The ecology of marine life history evolution: Anadromy, hermaphroditism, and global change. NOAA Northwest Fisheries Science Center, Seattle, WA
2014 The ecology and evolution of life histories in the sea. University of Alaska, Anchorage, AK
2014 Life histories in the sea. University of British Columbia, Vancouver, BC
2013 Understanding complexity in life-history evolution. Or, what to do when your fish doesn't fit the theory. Simon Fraser University, Vancouver, BC
2013 Combining theory and data to understand life-history traits and population dynamics**.** EAWAG Centre for Aquatic Research, Lucerne, Switzerland
2011 Complexity in maternal investment patterns: confronting theory with data. Center for Stock Assessment Research, UC Santa Cruz, Santa Cruz, CA

SELECTED CONTRIBUTED PRESENTATIONS

2016 **Kindsvater HK.** Talk: *Life-history traits, population dynamics, and species' ability to cope with change.* Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA
2016 **Kindsvater HK.** Talk: *When smaller is better: do females decrease offspring size to improve their own chances of survival?* Larval Fish Conference, Am. Fisheries. Soc. Early Life History section, Solomons, MD
2014 **Kindsvater HK,** Reynolds JD, Mangel M. Talk: *Modeling resilience and extinction risk in sex-changing fishes: how much information do we need to conserve data-poor groupers?* Int'l Marine Conservation Congress, Glasgow, Scotland
2014 **Kindsvater HK.** Talk: *The evolution of semelparity and egg size.* American Society of Naturalists meeting, Asilomar, CA; Evolution meeting, Raleigh, NC
2011 Passow CP‡, **Kindsvater HK**, Paczolt K, & Rosenthal GG. Poster: *Multiple mating in the livebearing fish* Xiphophorus birchmanni*,* Evolution meeting, Norman, OK
2011 Simpson SE‡, **Kindsvater HK**, & Rosenthal, GG. Poster*: Swordtail mate choice and reproductive allocation: effects of male condition.* Evolution meeting, Norman, OK

‡ *UNDERGRADUATE*

BROADER IMPACTS AND MENTORSHIP

2016 Contributed expertise - 9 *Mobula* ray species listed on App. II of CITES (see Pardo et al. 2016b)
2015 Talk: *Way Cool Wrasses* Beaty Biodiversity Museum Way Cool Seminar, Vancouver, BC
2014 Graduate workshop series organizer: *Introduction to Data and Statistics in R,* SFU
2014 Talk: *Parental Care and Reproduction in Fishes* Nerd Nite Vancouver, July 2014
2014 Undergraduate Diversity Mentor (two students), SSE/ASN Joint meeting, Raleigh NC
2014 Invited talks: *Writing Engagingly* and *Publicizing Your Work,* Grad workshop, SFU
2010 Undergraduate Research Thesis supervisor; I mentored two students; both went to graduate school and one is now a postdoc at U Minnesota

CONTRIBUTIONS TO DATA AND SOFTWARE REPOSITORIES

Dryad repository for Weir et al. 2016. Sneaker males affect fighter male body size and sexual size dimorphism in salmon. http://dx.doi.org/10.5061/dryad.76rd1

Dryad repository for Kindsvater et al. 2016. Costs of reproduction explain the correlated evolution of semelparity and egg size: theory and a test with salmon. http://dx.doi.org/10.5061/dryad.8v96r

Github repository for Kindsvater et al. 2016. 10 principles from evolutionary ecology essential for effective marine conservation. http://dx.doi.org/10.5281/zenodo.46789

Dryad repository for Paczolt et al. 2015. Multiple mating and reproductive skew in parental and introgressed females of the live-bearing fish *Xiphophorus birchmanni*. http://dx.doi.org/10.5061/dryad.878p7

Dryad repository for Kindsvater et al. 2012. Maternal size and age shape offspring size in a live-bearing fish, *X. birchmanni.* http://dx.doi.org/10.5061/dryad.rp131

PEER REVIEW SERVICE

The American Naturalist, Aquatic Living Resources, Behavioral Ecology, Biological Reviews, Conservation Letters, Ecological Applications, Ecology, Entomologia Experimentalis et Applicata, Evolutionary Ecology Research, Fisheries Research, Fishery Bulletin, Functional Ecology, ICES Journal of Marine Science, Journal of Animal Ecology, Journal of Evolutionary Biology, Journal of Fish Biology, Journal of Theoretical Biology, Methods in Ecology and Evolution, Naturwissenshaften, Oecologia, Oikos, PLoS ONE, Proc. Roy. Soc. B, *Reviews in Fish Biology and Fisheries, Theoretical Ecology*

Panelist: NSF-DEB
Ad hoc review for NSF-OCE