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EDUCATION

- 2011 Ph.D. Ecology and Evolutionary Biology, Yale University (*advisor*: Suzanne H. Alonzo)
2008 M.S. Ecology and Evolutionary Biology, Yale University
2003 B.S. Marine Biology (Honors), University of California Santa Cruz

PROFESSIONAL EXPERIENCE

- 2019- Assistant Professor, Fish and Wildlife Conservation, Virginia Tech
2015-2019 Assistant Research Professor, 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

PUBLICATIONS

- Walsh J, Pendray J, Godwin S, Artelle K, **Kindsvater HK**, Field R, Harding J, Swain N, Reynolds J. 2020. Relationships between Pacific salmon and aquatic and terrestrial ecosystems: a quantitative review. *Ecology* doi: 10.1002/ecy.3060
- Sherley R, Winker H, Rigby C, Kyne P, Pollom R, Pacoureau N, Herman K, Carlson J, Yin J, **Kindsvater HK**, Dulvy NK. 2020. Estimating IUCN Red List population reduction: JARA – a decision-support tool applied to pelagic sharks. *In press, Conservation Letters*. doi: 10.1111/conl.12688
- Horswill C, **Kindsvater HK**, Juan-Jordá MJ, Dulvy NK, Mangel M, Matthiopoulos J. 2019. Global reconstruction of life-history strategies for data-limited tuna populations. *J Appl. Ecol.* **2019**, 1-11
- Stiver KA, **Kindsvater HK**, Tamburello N, Heckman KL, Klein J, Alonzo SH. 2018. Intentional multiple mating by females in a species where sneak fertilization circumvents female choice for parental males. *J. Fish Biol.* **93**, 324–333
- Kindsvater HK**, Dulvy NK, Horswill C, Juan-Jordá MJ, Mangel M, Matthiopoulos J. 2018. Overcoming the data crisis in biodiversity conservation. *Trends Ecol. Evol.* **33**, 676-688
- Kindsvater HK**, Palkovacs E. 2017. Predicting eco-evolutionary impacts of fishing on body size and trophic role of Atlantic cod. *Copeia*. **105**, 475-482
- 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*. **18**, 821-836
- 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
- 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
- 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

- Weir L, **Kindsvater HK**, Young KA, & Reynolds JD. 2016. Sneaker males influence sexual size dimorphism in anadromous salmon. *American Naturalist*. **188**, 264-271
- 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
- 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
- Kindsvater HK** & Otto SP. 2014. The evolution of egg size in stage-structured populations. *American Naturalist* **184**, 143-155
- 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, Huffington Post, and the Vancouver Sun
- 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
- 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
- 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
- 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
- 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
- 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

INVITED PERSPECTIVES AND BOOK CHAPTERS

- Dulvy NK, **Kindsvater HK**. 2017. The Future Species of Anthropocene Seas. *Conservation for the Anthropocene Ocean*, P Levin & M Coe (Eds). [Book Chapter, peer-reviewed]
- Dulvy NK & **Kindsvater HK**. 2015. Recovering the potential of coral reefs. *Nature*. **520**, 304-305 [Invited Perspective]
- 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]

MANUSCRIPTS IN REVIEW

- Horswill C, Manica A, Birkhead T, Burthe SJ, Daunt F, Harris M, Hatchwell B, Thompson PM, Votier SC, Wanless S, Wood MJ, **Kindsvater HK**, & Matthiopoulos J. Environmental variation determines the relative importance of fecundity and survival in long-lived birds.
- Oke KB, Cunningham CJ, Westley PAH, Baskett ML, Carlson SM, Clark J, Hendry AP, Karatayev VA, Kendall NW, Kibele J, **Kindsvater HK**, Kobayashi KM, Lewis B, Munch S, Reynolds JD, Vick GK, & Palkovacs EP. Consistency, causes, and consequences of body size declines in Pacific salmon. *In revision, Nature Communications*
- Pacoureaux N, Rigby C, Kyne PM, Sherley RB, Winker H, Barreto R, Carlson JK, Fernando D, Francis MP, Jabado RW, Fordham SV, Herman KB, Liu KM, Marshall AD, Pollom RA, Romanov EV, Simpfendorfer CA, Yin JS, **Kindsvater HK**, & Dulvy NK. Half a century of global decline in sharks and rays. *In revision, Nature*.

FELLOWSHIPS AND AWARDS

- 2013 NSF Postdoctoral Research Fellowship in Math & Biology

- 2011 American Assoc. University Women Dissertation Fellowship (*declined due to early graduation*)
 2005 STAR Fellowship; U.S. Environmental Protection Agency
 2003 Dean's Award for Undergraduate Research (UC Santa Cruz)

GRANTS - SINCE PHD, AWARDED \$970,482 (OF \$1,771,000 IN TOTAL FUNDED)

- 2020 Virginia Tech Institute for Critical Technology and Applied Science: \$40,000 **HK Kindsvater** (Lead PI); R Ovissipour (VT; co-PI); L Castello (VT; co-PI)
 2018 Shark Conservation Fund: \$25,000 **HK Kindsvater** (Lead PI)
 2017 Career-Life Balance Supplement to NSF-DEB/NERC: Informing population models with evolutionary theory to infer species' conservation status: \$28,049
 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)

PENDING PROPOSALS

- 2019 NSF CNH2-L: *Integrating Cross-scale Socio-Ecological Feedbacks in Freshwater Fisheries*. Castello L (Lead PI, Virginia Tech), E Brondizio E (co-PI, Indiana University), **HK Kindsvater** (co-PI, Virginia Tech) *Pending*.

INVITED NATIONAL AND INTERNATIONAL PRESENTATIONS

- 2020 Center for the Advancement of Population Assessment Methodology at NOAA NWFSC and University of Washington. Keynote speaker: *Life history diversity, natural mortality, and fisheries reference points*. (upcoming March 2020)
 2019 University of Houston. *Information from adaptation: How species' life histories help them cope with the Anthropocene*
 2018 Virginia Tech. *Using species' traits to conserve and manage fish and fisheries*
 2018 Rutgers University. *Information from adaptation: how species' life histories help them cope with the Anthropocene*
 2018 UC Santa Barbara. *Fisheries, natural selection and life history*.
 2018 UC Davis. *Information from adaptation: life history, natural selection, and fishing*.
 2018 UC Santa Cruz. *Information from adaptation: Using life history to infer natural selection*.
 2016 Northeastern University. *The ecology of marine life histories: Anadromy, hermaphroditism, and global change*.
 2016 Stony Brook University. *The ecology of marine life histories*.
 2016 Larval Fish Conference, Am. Fisheries. Soc. Early Life History section, Solomons, MD *When smaller is better: do females decrease offspring size to improve their own chances of survival?*
 2016 University of Sheffield, UK *Linking models of reproductive allocation to population dynamics of marine species*.
 2016 Southern Connecticut State University. *Linking reproductive behavior to population dynamics in fishes*.
 2015 University of Michigan. *From demography to diversity in fishes*.
 2015 Florida State University. *The ecology and evolution of life histories in the sea*.
 2015 NOAA Northwest Fisheries Science Center, Seattle. *The ecology of marine life history evolution: Anadromy, hermaphroditism, and global change*.
 2014 University of Alaska Anchorage. *The ecology and evolution of life histories in the sea*.
 2014 University of British Columbia, BC, Canada. *Life histories in the sea*.
 2013 Simon Fraser University, BC, Canada. *Understanding complexity in life-history evolution. Or, what to do when your fish doesn't fit the theory*.
 2013 EAWAG Centre for Aquatic Research, Lucerne, Switzerland. *Combining theory and data to*

understand life-history traits and population dynamics.

OTHER PRESENTATIONS

- 2020 **Kindsvater HK**, Halvorsen KT, Sordalen TK, Alonzo SH. *Contributed talk*. The consequences of size-selective fishing mortality for larval production and sustainable yield in species with obligate male care. Virginia and Virginia Tech AFS joint chapter meeting (upcoming February 2020).
- 2019 **Kindsvater HK**. *Invited talk*. Using evolutionary theory to inform joint priors on demographic rates of rare marine pelagic fish. MathBio Interdepartmental Seminar Series, Virginia Tech
- 2019 Oke KB, Cunningham C, **Kindsvater HK** and 15 other working group members. *Contributed talk*. Canadian Society of Ecology and Evolution, Fredericton, NB, Canada.
- 2019 Mull C, Pardo S, Harry A, Saldaña Ruiz L, Garcia Rodriguez E, Finucci B, Bird C, Rigby C, Dureuil M, Dulvy NK, **Kindsvater HK**. *Contributed talk*. SharkTraits: A curated open-access database of shark, ray, and chimaera life-history traits. American Elasmobranch Society, Snowbird, UT
- 2018 Oken, K, **Kindsvater HK**, Provost M, and Jensen, OP. *Contributed talk*. American Fisheries Society, Atlantic City, NJ
- 2018 **Kindsvater HK**, Mangel M. *Contributed talk*. American Society of Naturalists, Asilomar, CA
- 2016 **Kindsvater HK**. *Contributed talk*. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA
- 2014 **Kindsvater HK**, Reynolds JD, Mangel M. *Contributed talk*. Int'l Marine Conservation Congress, Glasgow, Scotland
- 2014 **Kindsvater HK**, Otto SP, Braun D, Reynolds JD. *Contributed talk*. American Society of Naturalists, Asilomar, CA
- 2014 **Kindsvater HK**, Otto SP. *Contributed talk*. SSE Meeting, Raleigh, NC
- 2011 Passow CP[‡], **Kindsvater HK**, Paczolt K, Rosenthal GG. *Poster. Contributed poster*. SSE Meeting, Norman, OK
- 2011 Simpson SE[‡], **Kindsvater HK**, Rosenthal, GG. *Contributed poster*. SSE, Norman, OK
- 2010 Ochoa O[‡], Rosenthal GG, **Kindsvater HK**. *Contributed poster*. SSE, Portland, OR.
- 2010 **Kindsvater HK**, Alonzo SH, Rosenthal, GG. *Contributed talk*. SSE, Portland, OR
- 2008 **Kindsvater HK**, Bonsall MB, and Alonzo SH. *Contributed talk*. American Fisheries Society, Ottawa, Ontario, Canada
- 2006 **Kindsvater HK**. *Contributed poster*. SSE Meeting, Stony Brook University, NY
- 2006 **Kindsvater HK**, Bonsall MB, and Mangel M. *Contributed poster*. Mote Marine Lab meeting. Theme: Life History and Fisheries. Sarasota, FL.
- 2006 **Kindsvater HK**, Bonsall MB, and Mangel M. *Contributed talk*. Society for Integrative and Comparative Biology meeting, Orlando, FL.
- 2005 **Kindsvater HK**, Bonsall MB, and Mangel M. *Contributed talk*. Ecological Society of America, Montreal, Quebec, Canada.
- ‡ *UNDERGRADUATE*

TEACHING

- 2020 Principles of Wildlife and Fish Conservation, Virginia Tech
- 2019 Workshop Instructor: Importing and Cleaning Data in R and the Tidyverse, Rutgers University
- 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
- 2011 Guest lecture: Animal Behavior, Yale University
- 2011 TA: Reproduction and Development lab, Yale University
- 2009: TA: Diversity of Life, Yale University
- 2008: TA: Diversity of Life lab, Yale University
- 2008: TA: Ecology, Evolution, and Behavior, Yale University

2007: TA: Ecology, Evolution, and Behavior, Yale University

WORKING GROUPS

- 2019 NSF-RCN Evolving Seas (Invited participant)
- 2017- NCEAS - State of Alaska's Salmon and People working group: Consistency, causes, and
- 2018 consequences of declining size and age of Alaskan salmon (Invited participant, 3 meetings)

DEPARTMENT SERVICE

- 2019 Search committee, Mammal Ecology, Dept. of Fish & Wildlife Conservation, Virginia Tech
- 2019 Undergraduate student mentor – Swati Modwadhia (Rutgers Dept. of Ecology, Evolution and Natural Resources '21)
- 2019 - Graduate committee member – Katrina Catalano (Rutgers DEENR), Rene Clark (Rutgers DEENR), Sarah Borsetti (Rutgers Dept. of Marine and Coastal Science)
- 2017 - Graduate committee external member – Frieda Benun (CUNY Brooklyn College Biology)
- 2010 Undergraduate Research Thesis supervisor – Courtney Passow and Suzanne Simpson

OUTREACH AND MENTORSHIP

- 2019 American Fisheries Society Virginia Tech Chapter meeting (invited seminar)
- 2016 Contributed expertise - 9 *Mobula* ray species listed on App. II of CITES (see Pardo et al. 2016b)
- 2015 Public talk: Beaty Biodiversity Museum Way Cool Seminar, Vancouver, BC
- 2014 Graduate workshop series organizer: *Introduction to Data and Statistics in R*, SFU
- 2014 Public 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 Graduate workshop talks: *Writing Engagingly* and *Publicizing Your Work*, Grad workshop, SFU

CONTRIBUTIONS TO DATA AND SOFTWARE REPOSITORIES

- 2016 Dryad data repository for Weir et al *American Naturalist*. <http://dx.doi.org/10.5061/dryad.76rd1>
- 2016 Dryad data repository for Kindsvater et al. *Ecology Letters*. <http://dx.doi.org/10.5061/dryad.8v96r>
- 2016 Github repository for Pardo et al. *Scientific Reports*. <http://dx.doi.org/10.5281/zenodo.3245300>
- 2016 Github repository for Kindsvater et al. *Ecol. Evol.* <http://dx.doi.org/10.5281/zenodo.46789>
- 2015 Dryad data repository for Paczolt et al. *Heredity*. <http://dx.doi.org/10.5061/dryad.878p7>
- 2012 Dryad data repository for Kindsvater et al. *PLoS ONE*. <http://dx.doi.org/10.5061/dryad.rp131>

PEER REVIEW SERVICE

I have reviewed more than 50 manuscripts for more than 30 different journals, including *The American Naturalist*, *Aquaculture Research*, *Aquatic Living Resources*, *Behavioral Ecology*, *Biological Conservation*, *Biological Reviews*, *Biology Letters*, *Conservation Letters*, *Conservation Physiology*, *Coral Reefs*, *Ecological Applications*, *Ecology*, *Ecology Letters*, *Ecosphere*, *Entomologia Experimentalis et Applicata*, *Evolution*, *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*, *Naturwissenschaften*, *Oecologia*, *Oikos*, *PLoS ONE*, *Proceedings of the Royal Society Series B*, *Reviews in Fish Biology and Fisheries*, *Theoretical Ecology*

Panelist: NSF-DEB (two panels)

Ad hoc review for NSF-OCE, NSF-DEB and Oregon Sea Grant (4 proposals)