Ryan Peek

http://ryanpeek.github.io

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Personal Summary

I am interested in understanding ecological responses to watershed alteration for more effective conservation management. My research experience includes extensive biological, genetic, and geospatial analyses of freshwater ecosystems throughout CA and OR, with special focus on hydropower regulation and environmental management of rivers and streams in the Sierra Nevada.

Education

- Ph.D. Ecology, University of California, Davis (Expected 2018)
- M.S. Biology, University of San Francisco, 2010
- B.S. Wildlife, Fish, & Conservation Biology, University of California, Davis, 2002

Technical

- Intermediate: R, Python, shell, Git
- Basic: CSS, Stata, etc, etc

Teaching

- 2016: Instructor, Software & Data Carpentry

  Help teach researchers in science, engineering, medicine, and related disciplines the computing skills they need to get more done using open source and reproducible tools. Specifically, have helped teach ecology/natural science workshops at UC Davis and UC Berkeley. (http://software-carpentry.org/) (http://www.datacarpentry.org/)

- 2015: Teaching Assistant, Ecogeomorphology, University of California Davis

  Introduced advanced undergraduate students to multidisciplinary collaborative watershed and stream analysis through combined laboratory and field study of a selected stream system. Taught students from diverse backgrounds to work in interdisciplinary research teams to collect and analyze field data from the Tuolumne River system. Guided and taught in classroom, lab, and field, including a 3 day rafting trip on the Tuolumne River.

- 2008-2009: Lab Instructor/Teaching Assistant, General Biology, University of San Francisco

  Lab instructor for undergraduate general biology lab; planned and conducted lab activities and led discussions for two semesters (molecular biology fall semester, organismal biology spring semester). Gave weekly lecture to the class. Wrote weekly quizzes, graded students reports and exams

Employment

- 2014-current: Graduate Student Researcher, Center for Watershed Sciences

  Research in stream ecology and montane aquatic ecosystems, with particular focus on linking physical cues with biological diversity, and utilizing next generation sequencing methods to infer historical demography. Assessing ecological integrity with molecular techniques to understand current and future hydroclimatic impacts on hydro-regulated rivers in the Sierra Nevada. (watershed.ucdavis.edu)

- 2011-2014: Jr. Research Specialist, Center for Watershed Sciences

  Researched stream ecology and montane aquatic ecosystems, with particular focus on ecological integrity and hydroclimatic impacts on hydro-regulated rivers in the Sierra Nevada. Assessed hydroregulation impacts on biota, geomorphology, benthic macroinvertebrates, algae and water quality. Part of several interdisciplinary projects, including characterization and management of the spring snowmelt recession. Assessed the effects of hydroclimatic change on meadow associated amphibians in the Sierra Nevada. Integrated of climate warming in the FERC hydrorelicensing process, and geomorphological flume modeling of riverine bar shape under different flow regimes.

- 2010-2011: Biological Science Technician, USDA Forest Service, Pacific Southwest Research Station

  Developed and designed website on ecology, river regulation and conservation of the foothill yellow-legged frog (*Rana boylii*), including GIS synthesis and development of a map showing over 6,000 records of *R. boylii's* distribution in California and Oregon (http://gis.fs.fed.us/psw/topics/wildlife/herp/rana_boylii/). Provided research analysis support as part of a California Energy Commission study of regulated flow effects on *Rana boylii* using 2-D and 1-D RHABSIM modeling.

- 2009: Research Assistant II, University of California, Davis

  As part of a California Energy Commission study of regulated flow effects on foothill yellow-legged frog (Rana boylii) breeding habitat, led field research crews for extensive field data collection. Worked in rugged terrain in large rivers throughout California, collected amphibian, geomorphic, and hydraulic data.

Publications

- YYYY: Name et al. Article title. Journal name. Link/DOI
- YYYY: Name et al. Article title. Journal name. Link/DOI
- YYYY: Name et al. Article title. Journal name. Link/DOI
- YYYY: Name et al. Article title. Journal name. Link/DOI
- YYYY: Name et al. Article title. Journal name. Link/DOI
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Selected presentations

- YYYY: Title of presentation. Conference. Location. Poster/Oral
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Memberships and committees

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Awards and supporting information

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References

Available on request.