

LINDSAY E HANSEN

Flagstaff, AZ, USA

Website: lindsayehansen.com

Email: lindsayerikahansen@gmail.com

EDUCATIONAL HISTORY

Northern Arizona University (2019-present)

Master of Science, Environmental Science and Policy

Miami University of Ohio (2019-present)

Master of Art, Biology

University of California, Berkeley (2012-2016)

Bachelor of Sciences, Conservation and Resource Studies

(Ecosystem Ecology and Geomorphology focus)

Capstone Paper: Methylmercury Pollution: History, Effect, and Implication for the San Francisco Bay

Bachelor of Arts, Practice of Art

(Oil Painting Focus)

Capstone Project: Scientific Field Guide to the Wildlife of the San Francisco Bay Area

Study Abroad: Semester at Sea, Fall 2014

Tesoro High School, Rancho Santa Margarita, CA (2008-2012)

Valedictorian Diploma

Honors and Awards

Segal Americorps Education Award (1700 hours of volunteer service) (2019)

Segal Americorps Education Award (1700 hours of volunteer service) (2017)

Dean's List, UC Berkeley (2014)

Dean's List, Semester at Sea (University of Virginia) (2014)

Semester at Sea Merit Scholarship Recipient (2014)

National Society of Collegiate Scholars, Member, (2013-2016)

National Society of Leadership and Success, Member (2013-2016)

Honor's List, UC Berkeley (2012)

Laguna College of Art and Design Portfolio Development Scholarship, Winner (2012)

Tesoro High School PTSA Scholarship (2012)

AP Scholar with Distinction (2012)

National Honor Society, Activities Director (2010-2012)

Presidential Service Award Recipient, Silver Level (2011)

Presidential Service Award Recipient, Bronze Level (2010)

RESEARCH EXPERIENCE

NOAA Southwest Fisheries Science Center, Fish Biology Research Assistant

California Conservation Corps and Americorps Watershed Stewards Program

Santa Cruz, California (October 2018 – August 2019)

Advisors: Dr. Ann-Marie Osterback, PhD, Fisheries Biologist (annmarieosterback@noaa.gov), and Dr. Cynthia Kern, PhD, Fisheries Biologist (cynthia.kern@noaa.gov)

- Juvenile salmonid monitoring (snorkel surveys, electrofishing)
- Stable isotope sample preparation, scale mounting, E-DNA

- Database management
- Fish marking and tagging (PIT tagging, CWT, FLOY, DISC tagging)
- Adult salmon trapping, downstream migrant (smolt) trapping
- Redd and spawning ground surveys
- Water quality assessments and freshwater microplastic concentration in California coastal stream

Climate Change Impacts on High Alpine Trees in Mexico using Stable Isotopes, Research Assistant

University of California, Santa Cruz (July 2018)

Advisor: Paulo Quadri Barba, PhD Candidate in Environmental Studies, University of California Santa Cruz (pquadri@ucsc.edu)

- Prepared samples of wood from high alpine areas in Mexico to be measured in a mass spectrometer for carbon, nitrogen, and oxygen isotope concentration
- Isolated tree rings by year

GIS Modeling of Urban Bird Distribution and Behavior in Shops and Street Markets

Kathmandu, Nepal (May 2016 – May 2019)

Advisor: Dr. Falk Huettmann, PhD, Associate Professor of Wildlife Biology, University of Alaska, Fairbanks (fhuettmann@alaska.edu)

- Conducted initial population research of bird species nesting inside shops in cities and villages
- Led a crew to collect nest monitoring data and conduct avian point counts
- Created GIS models and predictions using Machine Learning software

Related publications:

L. Hansen & F. Huettmann. 3.3 Urban Ecology in shops and housing: An example of culture, religion and how (nesting) Barn Swallows, House and Tree Swallows create for a lively human-wildlife link at the commercial interface. Hindu Kush-Himalaya Watersheds: Landscape Ecology and Conservation Perspectives. Basel, Switzerland: Springer, 2019. Print.

Bumble Bee Population Surveys and Songbird Blood Testing in the Sierra Nevada

Institute for Bird Populations, Plumas National Forest (May 2015 – August 2015)

Advisor: Julia Polasik, Avian Biologist, Institute for Bird Populations (jpolasik27@gmail.com)

- Sampled bumble bee species populations in remote post-fire chaparral habitats
- Mist netted, bird banded, and collected blood samples (for methylmercury testing) for target bird species
- Recorded vegetation assessment data for plots

Geographic Information System (GIS) Digitizing of Marijuana Grows in Northern California with UC Berkeley LUC Lab

Undergraduate Research Apprentice Program (URAP)

University of California, Berkeley (January 2015 – May 2015)

Advisor: Van Butsic, Assistant Cooperative Extension Specialist, UC Berkeley (vanbutsic@berkeley.edu)

- Identified and GIS digitized marijuana grows along watersheds in Mendocino County, California via Google Earth for preliminary data for water quality assessments

Seedling and Sapling Phenology Study with UC Berkeley Ackerly Integrative Biology Lab

Undergraduate Research Apprentice Program (URAP)

University of California, Berkeley (January 2015 – May 2015)

Advisor: Meagan Oldfather, Doctoral Candidate in Integrative Biology, UC Berkeley

- Sampled tree saplings distribution and diversity to test the effect of climate change on demographic range shifts in temperate tree species in California oak woodlands

Strawberry Creek Water Quality Restoration Management Plan

University of California, Berkeley (January 2014 - May 2014)

Advisor: Katharine Suding, Professor of Ecology and Evolutionary Biology, University of Colorado Boulder (suding@colorado.edu)

- Sampled macroinvertebrate populations using kick nets and sampled water flow rate and temperature
- Wrote a restoration management plan for the University of California regarding population numbers in respect to water quality in collaboration with classmates

Rangeland Ecology Study of Animal Impacts on Native Grasses in Tejon Ranch, California with UC Berkeley Bartolome Rangeland Ecology Lab

Undergraduate Research Apprentice Program (URAP)

University of California, Berkeley (August 2013 – May 2014)

Advisor: Felix Ratcliff, PhD in Environmental Science, Policy, and Management, UC Berkeley (felixratcliff@berkeley.edu)

- Wrote species accounts, compiled research, and collected wildlife population data from camera trap video footage

PUBLICATIONS and POSTERS

Lindsay Hansen & Falk Huettmann. 3.3 Urban Ecology in shops and housing: An example of culture, religion and how (nesting) Barn Swallows, House and Tree Swallows create for a lively human-wildlife link at the commercial interface. *Hindu Kush-Himalaya Watersheds: Landscape Ecology and Conservation Perspectives*. Basel, Switzerland: Springer, 2019. Print.

Lindsay Hansen, Karlee Liddy, Roselea Bond, Ann-Marie Osterback, Cynthia Kern, Alexander Hay, Jeffrey Perez, Joshua Meko and Joseph Kiernan. “Assigning species to redds: exploring uncertainty in a central California coastal creek.” Postere presented at the Salmonid Restoration Federation Annual Meeting. Santa Rosa, California. 25 April 2019.

Lindsay Hansen & Falk Huettmann. ‘Birds in the Human Street-Market Interface of Urban Nepal: Towards a first Open Access GIS Data and Model Inference of Bird Distribution’. Poster presented at the US Regional Association of the International Association for Landscape Ecology Annual Meeting. Chicago, IL. April 2018.

TEACHING EXPERIENCE

Science Instructor, Dana Point Ocean Institute, Dana Point, CA

Sep 2017 – May 2018

- Present interactive 2-4 hour labs and exercises for student groups ranging from college to preschool aged students, in laboratory, classroom, and at-sea research vessel settings
- Topics include dissections (squid, fish, cow eye), watershed function and pollution, morphological identification, engineering and physics to groups of 15-50 students.

Student Conservation Association Massachusetts Americorps Member, Hawley, MA

Oct 2016 – Aug 2017

- Environmental education and science instructor for elementary and middle school students in a formal setting at underserved rural schools in Western Massachusetts. Taught 180 students regularly, and taught a 400 in total.
- Taught groups of 10-20 high school aged students trail building and habitat restoration techniques.

Environmental Education Intern, Earthroots Field School, Trabuco Canyon, CA

May 2013 – Aug 2013

- Assistant instructor for outdoor science education school and summer camp for children ages 5-14.
- Taught lessons including wilderness survival skills, wildlife identification, botany, and native history to classes of 10-30 people.

EMPLOYMENT HISTORY

**Americorps Member placed at NOAA Southwest Fisheries Science Center, Santa Cruz, CA
California Conservation Corps Watershed Stewards Program in partnership with Americorps**

October 2018 – August 2019

Assist with both upstream migrant trapping of salmonid adults and salmonid smolt outmigration trapping. Deploy coded wire tags (CWT) and passive integrated transponder s(PIT) on smolts to monitor smolt to adult survival and adult returns (escapement), and monitor PIT antenna arrays. Conduct juvenile snorkel surveys to document annual trends in juvenile coho and steelhead abundance in watersheds in Santa Cruz county. Compile data and work with volunteers and students to remove fish barriers in the watershed.

Science Instructor, Dana Point Ocean Institute, Dana Point, CA

Sep 2017 – present

Taught students aged college through preschool on a variety of marine science topics, in laboratories and on a research vessel at sea. These topics include watershed pollution, ecosystem function, morphological identification, animal adaptations, dissections, and bioluminescence, among others. Deployed deep-sea research monitoring equipment, including a benthic trawl, vertical and horizontal plankton tows, gravity corer, and benthic mud grab.

Student Conservation Association Massachusetts Americorps Member, Hawley, MA

Oct 2016 – Aug 2017

Environmental education and science instructor for elementary and middle school students in a formal setting at underserved rural schools in Western Massachusetts for 5 months, and worked as a conservation steward for an additional 5 months, conducting high priority trail-building, habitat monitoring, and natural space restoration projects, leading crews, and working directly with contacts and stakeholders at Massachusetts state forests.

Field Biologist Intern, Institute for Bird Populations, Plumas National Forest, CA

May 2015 - Aug 2015

Sampled native bumble bee species populations, mist netted and bird banded target bird species, and recorded vegetation assessment data during avian point counts in watershed areas in the Moonlight Fire burned area of the northern Sierra Nevada Mountain Range.

Naturalist/ Scientific Illustration Intern, Tucker Wildlife Sanctuary, Silverado, CA

May 2014 - Aug 2014

Taxonomically classified native plants within the sanctuary, led education lessons for high school student groups, and designed and illustrated leaf identification placards for native vegetation.

Lead Catering Assistant, International House Catering, Berkeley, CA

Aug 2013 – May 2016

Waitress and bartender for large group events and galas of up to 400 people. Led teams of caterers and trained new employees.

Environmental Education Intern, Earthroots Field School, Trabuco Canyon, CA

May 2013 – Aug 2013

Assistant instructor for outdoor science education school and summer camp for children ages 5-18. Taught lessons including wilderness survival skills, wildlife identification, botany, and native history.

VOLUNTEER EXPERIENCE

California Conservation Corps Watershed Stewards Program in Partnership with Americorps (Oct 2018-Aug 2019)

- Organized watershed recovery community volunteer events, taught watershed science in the classroom, actively worked on watershed recovery efforts in local coastal streams in Santa Cruz, California

Conservation Steward and Environmental Educator, Student Conservation Association Massachusetts Americorps (Oct 2016 – Aug 2017)

- Taught science and environment lessons to elementary school students, and restored trails and habitats in Massachusetts forests. Accrued over 1700 hours of service.

Volunteer Storefront Manager at Berkeley Student Food Collective (Sep 2013 – May 2015)

- Prepared locally sourced food and stocked shelves at the food cooperative's store

Youth Recruitment Commissioner and Committee Chair, American Cancer Society Relay for Life Ladera Ranch (2009-2012) **and Team Captain** (2007-2012);

- I led a team of over eighty youths in raising over \$15,000 per year for the American Cancer Society, and helped develop a new chapter of Relay for Life in my community.

Arroyo Vista Children's Theater (2006 – 2012)

- Worked as a stagehand, lighting board member, and set designer

IMPACT Lead Peer Mentor (2010-2012)

- Served as a peer guidance counselor for freshman students at my high school

Tesoro Tribune Art and Culture section editor (2011-2012)

- Reported on high school art events and edited journalism entries from students.

QUALIFICATIONS

Relevant Skills and Certifications

- Swiftwater Rescue (Stream Certification) (Sierra Rescue) (2018)
- Wilderness First Aid (Sierra Rescue) (2018)
- American CPR Training (2018)
- Wilderness First Responder (AERIE Backcountry Medicine) (2017)
- American Heart Association Heartsaver CPR Certified (2017)
- PADI Open Water SCUBA Diver (2016)
- Trained in Grip Hoist and Rigging
- Field research methods:
 - Snorkel surveys, whale shark sexing, mist netting, bird banding, salmon spawner surveys
- Experience with:
 - ArcGIS, QGIS, Google Earth
 - Adobe Photoshop Lightroom and Illustrator
 - Microsoft Office, Microsoft and Mac Operating Systems
 - Writing literary reviews and research papers
 - Data collection and working in burned areas and watersheds (vegetation/habitat assessments)
 - Leading field crews, trail building and forest management

Languages

- Proficient in Spanish (3.5 years of study)

Art

Scientific illustrations, diagrams, oil paintings, and murals (lindsayehansen.com)