

Katherine E. Jirik

CURRICULUM VITAE

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Education

2005-2009: M.S. Biology; Department of Biological Sciences, California State University Long Beach; graduate with honors
Advisor: Dr. Christopher G. Lowe

2001-2005: B.A. Creative Studies (emphasis: Biology); College of Creative Studies, University of California Santa Barbara; graduate with honors
Advisor: Dr. Robert R. Warner

Professional Experience

Department of Biological Sciences, California State University Long Beach –
Graduate Student (2005-2009)

Master's thesis: Influence of temperature on the habitat use and movement patterns of round stingrays in a southern California estuary

Additional field research: First reported occurrences of the green sea turtle, *Chelonia mydas*, in the Anaheim Bay Estuary (Seal Beach, California)

Involved in other graduate research projects focused on elasmobranch biology, fish communities, and gamefish habitat use

Monterey Bay Aquarium – White Shark Project Rapid Response Team Member
Collaborative project with the Monterey Bay Aquarium to study the movements of YOY and juvenile white sharks (*Carcharodon carcharius*) in the Southern California Bight.

Center for Shark Research, Mote Marine Laboratory, Sarasota, Florida – College
Intern (2005)

Involved with efforts to study and conserve the smalltooth sawfish (*Pristis pectinata*), a rare and federally endangered species of ray, as well as research on the longer-term movements of bull (*Carcharhinus leucas*) and blacktip sharks (*Carcharhinus limbatus*).

Department of Ecology, Evolution, and Marine Biology, University of California Santa Barbara – Undergraduate Research Assistant (2003-2005)

Independent research project investigating daylength as a possible explanation for variation in clutch size over a latitudinal gradient, as exhibited by the Yellow Warbler (*Dendroica petechia*). Collaborative study with Michael J. Kuehn, Ph.D. candidate (Stephen I. Rothstein laboratory).

Bimini Biological Field Station, Bimini, the Bahamas – Volunteer (2003)

Worked with researchers studying the nursery areas used by juvenile lemon sharks (*Negaprion brevirostris*). Supervisors: Drs. Samuel H. Gruber (University of Miami, Coral Gables) and Bryan Franks.

PISCO (Partnership for Interdisciplinary Studies of Coastal Oceans), Marine Science Institute, University of California Santa Barbara – Volunteer (2001-2002)

Provided educational outreach regarding coastal marine ecosystems for the Marine Science Institute. Also, larval sample processing.

Publications

Jirik, KE. 2009. Influence of temperature on the movement patterns and habitat use of round stingrays in a southern California estuary. M.S. Thesis: California State University Long Beach, California, USA.

Jirik, KE and CG Lowe. First reported occurrences of the green sea turtle, *Chelonia mydas*, in the Anaheim Bay Estuary (Seal Beach, California). In review.

Presentations at Professional Meetings

Jirik, KE and CG Lowe. Influence of temperature on the habitat use and movement patterns of round stingrays in a southern California estuary. American Elasmobranch Society: Portland, OR. July 2009.

Jirik, KE and CG Lowe. Seeking out the shallows: does a thermal reproductive advantage exist for stingrays? Southern California Animal Behavior Symposium: Long Beach, CA. March 2008.

Jirik, KE and CG Lowe. Seasonal abundance and habitat preference of round stingrays in a southern California estuary. Western Society of Naturalists: Ventura, CA. November 2007.

Teaching Experience

Teaching Philosophy

My teaching emphasizes the importance of asking biological questions and using multi-faceted experimental approaches to answer to them. Class discussions challenge students to explore these questions in a theoretical framework and then apply their ideas to important topics in biology today. Field activities encourage active learning and an understanding of the interrelatedness of biological themes.

Courses taught share common topics of animal diversity and classification, ecology, adaptations to environmental selection pressures, and anthropogenic influences on the natural environment

Previous Teaching Responsibilities

- To lecture on course material, help students to develop skills in observing live animals and preserved specimens; to teach students how to write scientific papers
- Lead class discussions and demonstrations
- Coordinate fieldtrips to various locations in southern California
- Improve existing coursework and course materials; grade exams and papers
- Equipment upkeep, experimental set-ups, animal husbandry

Department of Biological Sciences, California State University Long Beach –

Graduate Teaching Associate

Courses: Introduction to Marine Biology (6 semesters; 2005-2008).

Department of Ecology, Evolution, and Marine Biology, University of California Santa Barbara –

Undergraduate Teaching Assistant

Courses: Ethology & Behavioral Ecology, Terrestrial Vertebrate Biology (3 quarters; 2004-2005)

Birch Aquarium, Scripps Institution of Oceanography, La Jolla, CA – Marine Wildlife Educator/Volunteer (1998-2001)

Provided engaging educational experiences for aquarium guests and developed print materials for exhibit interpreters; planning and logistics for special events

Guest Lectures and Invited Talks

Role of aquaculture and stock enhancement & management. Biology 520: Fisheries Conservation and Management. CSU Long Beach: 2008.

Fishes of the Anaheim Bay Estuary. Seal Beach National Wildlife Refuge: 2008.

From here to maternity: does a thermal reproductive benefit exist for round stingrays? All University Celebration of Research, Scholarly, and Creative Activity. California State University Long Beach: 2008.

Outreach Activities

Careers in marine biology. Career Day at Robert C. Cawthon Elementary School: 2008.

Acoustic tagging of sharks and rays. Marine Science Sleepover Camp. Aquarium of the Pacific, Long Beach: 2007.

Graduate Student Biology Society. California State University Long Beach: 2007-2009.

Options for Undergrads Workshop. Created workshops for UCSB undergraduates in the biological sciences to explore various options they may encounter in making the transition to graduate school. University of California Santa Barbara: spring 2004.

Grants and Awards

Outstanding Graduate Research Fellow Award. All University Celebration of Research, Scholarly, and Creative Activity. California State University Long Beach, 2008.

Provost's Summer Stipend, California State University Long Beach, 2008.

CSULB Graduate Research Fellowship, California State University Long Beach, 2007.

Donald R. Reish Research Award, California State University Long Beach, 2007.

Richard B. Loomis Research Award, California State University Long Beach, 2007.

USC SeaGrant Rapid Response Research Award, 2006.

Southern California Tuna Club Marine Biology Foundation Scholarship, 2006.

Louis S. Gilbert Scholarship. Mote Marine Laboratory, 2005.

Undergraduate Research and Creative Studies Research Award. College of Letters & Science, University of California Santa Barbara, 2004.

Summer Undergraduate Research Fellowship, College of Creative Studies, University of California Santa Barbara, 2003.

Professional Memberships

American Elasmobranch Society

Western Society of Naturalists

AAAS

Certifications

AAUS Scientific Diver (since 2006); certified to 100 ft.

NAUI Master SCUBA Diver (since 2006)

PADI Open Water Certified Diver (since 2001)

CPR, First Aid, Emergency Oxygen Administration

California Department of Boating and Waterways

Computer Literacy

Proficient in the Microsoft Office package, Minitab, and Photosmart Premier; experienced using ArcGIS and SPSS; growing skill with Adobe Photoshop and Microsoft Frontpage.

Fieldwork experience

Fishing: hook-and-line, beach seining, long-lining, drum-lining, gill-netting, trapping, bottom trawl, block netting

Fish tagging: conventional, PIT, acoustic, satellite

Research SCUBA diving: fish transects on oil platforms and rocky reefs, deployment and maintenance of monitoring equipment, fish collection; experienced in low visibility conditions

Other: active tracking of elasmobranchs and teleost fishes, shark work-ups (morphs, OTC injections, DNA samples, etc.), retrieval of pop-up archival satellite tags, shark stomach eversions, dissections, captive animal husbandry (animal care, life support systems, and transport)