

EMILY M. ABBOTT

321 Steinhaus Hall, University of California, Irvine, Irvine, CA 92697 | w: 949-824-7258 | abbotte@uci.edu

EDUCATION

University of California, Irvine, Irvine, CA 2012-present
PhD student in Department of Ecology and Evolutionary Biology

Providence College, Providence, RI 2004-2008
B.S. cum laude in Biology
Minor in Drawing
Liberal Art Honors Certificate, Division I Varsity Swim Team

WORK EXPERIENCE

Research Assistant 2011-2012
Azizi Lab, Dept. of Ecology and Evolutionary Biology, UC Irvine, Irvine, CA

Summer Scholar 2011
Children's Mercy Hospital, Dept. of Orthopaedics, Kansas City, MO

Research Assistant 2008-2011
Roberts Lab, Dept. of Ecology and Evolutionary Biology, Brown University, Providence, RI

Science Diving Assistant 2008 & 2010
Rakow-Sutherland field expedition, Liquid Jungle Laboratory, Isla Canales, Panama

Lab Technician 2007-2008
Costello Lab, Dept. of Biology, Providence College, Providence, RI

Summer Research Assistant 2006 & 2007
Marine Biological Laboratory, Woods Hole, MA

TEACHING EXPERIENCE

UC Irvine

TA, Human Physiology Lab (BIO SCI E112L) Fall '12, Winter '13, & Spring '14

TA, Global Sustainability (EARTHSS 190CW/ SOCECOL 186CW) Spring 2013

TA, DNA to Organisms (BIO SCI 93) Fall 2013

Mentor, Muscles & Movement (BIO 199) 2011-present

PROFESSIONAL DEVELOPMENT

UC Irvine

Bio Sci Workshop: Effective Undergraduate Mentoring in the Research Lab 6weeks, Fall 2014

TA Workshop: Dealing with Evaluations November 5, 2012

TA Workshop: Effective Writing Responses October 17, 2012

Center for Integration of Research, Teaching, and Learning (CIRTL)

Massive Open Online Course: Evidence-Based STEM Teaching 7 weeks, Fall 2014

Ecological Society of America, San Jose, CA

Life Discovery- Doing Science Education Conference October 3-4, 2014

PUBLICATIONS

1. Azizi E., *Larson N.P., **Abbott E.M.**, Danos N. (Submitted May, 2014) Stick the Landing: Toads Position Their Limbs to Reduce Torques During Landing. *Journal of Experimental Biology*.
2. **Abbott, E.M.**, Schwend, R.M. and Nandyala, S.V. (2014) Does a kaolin-impregnated hemostatic dressing reduce intra-operative blood loss and blood transfusions in pediatric spinal deformity surgery? *Spine*, in press.

3. Astley, H.C., **Abbott, E.M.**, Azizi, E., Marsh, R.L. and Roberts, T.J. (2013) Chasing maximal performance: A cautionary tale from the celebrated jumping frogs of Calaveras County. *Journal of Experimental Biology*. 216: 3947-3953.
4. Azizi, E. and **Abbott, E.M.** (2012) Anticipatory motor patterns limit muscle stretch during landing in toads. *Biology Letters*. 9: doi: 10.1098/rsbl.2012.1045.
5. Roberts, T.J., **Abbott, E.M.** and Azizi, E. (2011) The weak link: Do muscle properties determine locomotor performance in frogs? *Philosophical Transactions of the Royal Society B*. 366: 1488-1495
6. *Weston, J., Colin, S.P., Costello, J.H. and ***Abbott, E.M.** (2009) Changing form and function during development in rowing hydromedusae. *Mar Ecol Prog Ser*. 374: 127-134

PRESENTATIONS

1. **Abbott, E.M.**, Sawicki, G. and Azizi, E. (2015) *Modeling the effective utilization of tendons during eccentric contractions*. Oral presentation at the Society for Integrative and Comparative Biology (SICB). West Palm Beach, FL.
2. **Abbott, E.M.**, Sawicki, G. and Azizi, E. (2014) *Temperature dependence of muscle function alters the effective utilization of tendons*. Poster presentation at the American Physiological Society (APS). San Diego, CA.
3. *Thomsen, W. and **Abbott, E.M.** (2014) *When springs have sprung: tendon recoil rates at different temperatures*. Oral presentation at Southwest Organismal Biology (SWOB). Irvine, CA.
4. **Abbott, E.M.**, Sawicki, G. and Azizi, E. (2014) *Modeling the effective utilization of tendons during eccentric contractions*. Oral presentation at SWOB. Irvine, CA.
5. **Abbott, E.M.** and Azizi, E. (2014) *Muscle kinetics determine the effective utilization of tendons during eccentric contractions*. Oral presentation at the Alternative Muscle Club Meeting (AMC), San Diego, CA.
6. **Abbott, E.M.** (2014) *The dangers of impact: how muscles and tendons interact to dissipate energy and prevent injury*. Oral presentation at Winter Ecology and Evolutionary Biology Graduate Student Symposium (WEEBGSS). Irvine, CA.
7. **Abbott, E.M.** and Azizi, E. (2014) *Muscle relaxation rate may determine tendon recoil rate during energy dissipating tasks*. Oral presentation at the Society for Integrative and Comparative Biology (SICB). Austin, TX.
8. Holt, N.C., **Abbott, E.M.** and Azizi E. (2014) *Compliance, activation and the force-length relationship*. Oral presentation at the Society for Integrative and Comparative Biology (SICB). Austin, TX.
9. **Abbott, E.M.** and Azizi, E. (2013) *Muscle relaxation rate may determine tendon recoil rate during energy dissipating tasks*. Oral presentation at the regional SICB Division of Vertebrate Morphology (DVM). Riverside, CA.
10. **Abbott, E.M.** and Azizi, E. (2013) *The timing of muscle recruitment alters series elastic function during lengthening contractions*. Oral presentation at the Alternative Muscle Club Meeting (AMC), San Diego, CA.
11. Azizi, E. and **Abbott E.M.** (2013) *Anticipatory motor patterns limit muscle stretch during landing in toads*. Oral presentation at SICB, San Francisco, CA.
12. **Abbott, E.M.** and Azizi, E. (2013) *The timing of muscle recruitment alters series elastic function during lengthening contractions*. Oral presentation at SICB, San Francisco, CA.
13. *Rana, P.V., *Larson, N.P., **Abbott, E.M.** and Aziz, E. (2013) *How toads minimize torques to stick their landings*. Poster presentation at SICB, San Francisco, CA.
14. **Abbott, E.M.**, Azizi, E. and Roberts, T.J. (2012) *Extrinsic loading in Cuban tree frog jumping*. Oral presentation at SICB, Charleston, NC.
15. **Abbott, E.M.**, Marsh, R.L., Astley, H., Azizi, E. and Roberts, T.J. (2010), *The celebrated jumping frogs of Calaveras County: how far can a frog really jump?* Oral presentation at SICB, Seattle, WA.
16. **Abbott, E.M.**, and Roberts, T.J. (2009), *Elastic mechanisms as a determinant of anuran jumping performance: do toads bounce?* Oral presentation at DVM, Providence, RI.
17. **Abbott, E.M.**, and Roberts, T.J. (2009), *Elastic mechanisms as a determinant of anuran jumping performance: do toads bounce?* Poster presentation at SICB, Boston, MA.

* designates undergraduate co-author

MEMBERSHIPS

Society of Integrative and Comparative Biology (SICB)
American Physiological Society (APS)
American Association of University Women (AAUW)

PROFESSIONAL ACTIVITIES

2014-2015, Ecology and Evolutionary Biology Graduate Student Representative
2013-present, Science Fair Judge
2013-present, AAUW volunteer

AWARDS

2014, Graduate Aid in Areas of National Need (GAANN) Fellowship, US Dept. of Education
2014, Grover C. Stephens Memorial Fellowship Award, UC Irvine, \$1000
2014, NSF GRFP Honorable Mention
2014, Charlotte Magnum Student Support Award, SICB, conference housing
2014 Graduate Fellow Award, HHMI-UCI Teaching Fellows Program, \$500
2013, 2014, Dept. of Ecology and Evolutionary Biology Travel Award, \$400
2013, Best Graduate Student Presentation, SICB Division of Vertebrate Morphology, UC Riverside, \$50
2007, Rhode Island NSF EPSCoR Fellowship, Providence College, \$3500