

**Abraham L. Borker**  
UCSC Long Marine Lab  
100 Shaffer Road  
Santa Cruz, CA 95060  
917.734.4639  
[aborker@ucsc.edu](mailto:aborker@ucsc.edu)  
[abeborker@gmail.com](mailto:abeborker@gmail.com)

## Curriculum Vitae

### Education

- 9/2012 – Present      PhD. Ecology and Evolutionary Biology - University of California – Santa Cruz.  
(expected graduation 2016)
- 9/2009 – 8/2012      M.A. Ecology and Evolutionary Biology - University of California – Santa Cruz.  
“Acoustic Activity as a Low Cost and Scalable Index of Seabird Colony Size”
- 9/2003 – 5/2007      State University of New York School for Environmental Science and Forestry,  
Syracuse, New York  
B.S. Major in Conservation Biology graduated Magna Cum Laude (GPA 3.475)
- 9/99 – 6/2003      Stuyvesant High School, Graduated June 2003

### Peer Reviewed Publications

- in print* Tershy, B., S. Harrison, **A. Borker**, B. Sinervo, T. Cornelisse, C. Li, D. Spatz, D. Croll, and E. Zavaleta. 2016. Biodiversity. in H. Mooney and E. Zavaleta, editors. Ecosystems of California. University of California Press.
- accepted* **Borker, A. L.**, M. W. McKown, P. Halbert, B. R. Tershy, and D. A. Croll. 2014. A Comparison of Automated and Traditional Monitoring Techniques for Marbled Murrelets Using Passive Acoustic Sensors. Wildlife Society Bulletin
- 2014** **Borker, A. L.**, M. W. McKown, J. T. Ackerman, C. A. Eagles-Smith, B. R. Tershy, and D. A. Croll. Vocal Activity as a Low Cost and Scalable Index of Seabird Colony Size. Conservation Biology 28:1100–1108.
- 2014 Pyle P, R. David, B. D. Eilerts, A. B. Amerson, **A. Borker**, and M. McKown. 2014. Second record of Bryan’s Shearwater *Puffinus bryani* from Midway Atoll, with notes on habitat selection, vocalizations and at-sea distribution. Marine Ornithology 5–8.
- 2012 Matthew W McKown, Martin Lukac, Abraham Borker, Bernie Tershy, Don Croll. A wireless acoustic sensor network for monitoring wildlife in remote locations. The Journal of the Acoustical Society of America 09/2012; 132(3):2036.

### Professional Research Experience

- Summer 2013,14,15      NOAA, Antarctic Marine Living Resources, Western Antarctic Peninsula  
Mammal, Seabird and Sea-ice Observer: Conducted standardized visual  
observations aboard the icebreaker R/V Nathaniel B. Palmer.
- 7/11      National Marine Fisheries Service, Santa Cruz, CA  
Seabird Observer: Conducted standardized surveys of coastal and offshore  
seabirds during a ten day salmon research cruise

- 7/10 NOAA, Monterey Bay National Marine Sanctuary, CA  
Seabird Observer: Conducted standardized offshore seabird surveys of the Davidson Seamount.
- 5/09 – 9/09 University of California, Santa Cruz, CA  
Junior Specialist: Began pilot research on the acoustic monitoring of seabirds in preparation for my thesis research.
- 12/08 – 3/09 Cornell Lab of Ornithology, Homestead, FL  
Field Biologist: Systematically searched remote mangrove and hardwood habitats of Southern Florida for the presence or sign of Ivory Billed Woodpeckers on the 2009 Cornell Mobile IBWO Search Team.
- 5/08, 9/08-10/08 Wildlife Conservation Society, Brooklyn, NY  
Research Assistant: Banded passerines in efforts to understand the stopover ecology of spring and fall urban migrants.
- 12/07 – 4/08 Cornell Lab of Ornithology, Brinkley, AR  
Camera Specialist: Responsible for remote camera efforts in photographing the Ivory Billed Woodpecker in Arkansas in flooded bottomland hardwood forests. Duties include deployment and retrieval of automated remote cameras, image organization and revision.
- 8/07 – 10/07 Wildlife Trust, Smithsonian Migratory Bird Center, Washington D.C.  
Avian Field Technician: Banded passerines across a variety of sites in the DC-Baltimore area. Work focused on bleeding birds, targeted and blanket mist-netting, tick removal, as well as other methods in studying West Nile Virus from sites such as Downtown D.C. to hardwood forests. NSF funded research by Dr. Austin Kilpatrick.
- 5/07 – 7/07 New Jersey Audubon Research Division, Brooklyn, NY  
Avian Survey Technician: Independently conducted over 300 surveys around Jamaica Bay by car, bicycle and kayak as contracted by the National Park Service. Callback surveys for secretive marsh birds. Developed relationships with local law enforcement, NPS staff, and other researchers to coordinate and allow access to the myriad of urban habitat fragments.
- 5/06 – 7/06 White Throated Sparrow Project, Cranberry Lake, NY  
Field Assistant: Conducted extensive nest searching and behavioral observation of White Throated Sparrows. Targeted mist netting of individuals and experience reading color bands on small forest birds. Lived at lakeside biological station, accessible only by boat. NSF funded research by Dr. Elaina Tuttle from Indiana State University.
- 5/04 – 8/04 CUNY Research Foundation, New York, NY  
Research Assistant: With doctoral candidate Andy Bernick (now PhD), conducted Black Crown Night Heron surveys and behavioral observations five nights a week. Also aided Harbor Herons survey of local heron rookeries, capturing herons and prey sampling in local wetlands.

### **Internships**

- 6/05 – 7/05 Landcare Research, New Zealand

Research Intern: Studied native bird's pollinator relationships with native winter flowering tree species. Independently collected photographic data and field observations on an offshore predator-free island Tiritiri Matangi Island for 2 months (Living allowance provided). Abstract accepted for 2007 Society of Conservation Biology Conference in South Africa, but unable to attend.

7/02-8/02

American Museum of Natural History, Ornithology Department, NYC  
Inside View Intern: Under the mentorship and direction of Dr. Cracraft and Mr. Capainolo, participated in ongoing work of the Ornithology Department, including the analysis, documentation and preparation of specimens. (Stipend for travel and participation)

8/01

African/European Songbird Migration Project, Osca, Hungary  
Research Team Member of Earthwatch Team: Captured and banded birds, collected metrics data and fecal samples; set mist nets; maintained and built trails. (Full travel allowance and scholarship)

### **Teaching Experience**

Fall 2014

University of California, Santa Cruz, CA  
BIO182 Lecturer: Designed and instructed a field research and natural history course for first year students across majors. Course incorporated weekend camping trips, local day trips and evening lectures introducing ecological principles and local natural history.

Spring 2012, 2014

University of California, Santa Cruz, CA  
ENVS109 Teaching Assistant: This unique course carries a full credit load and most teaching took place on UC Natural Reserves. Similar to ENVS104, the goal of this course is to teach students how to think critically and become independent ecological investigators. In addition to guest lecturing and leading workshops, my role was to support the student's research projects from design to implementation.

Spring 2011

University of California, Santa Cruz, CA  
ENVS104A Teaching Assistant: As a teaching assistant I often instructed labs independently from Dr. Erika Zavaleta, including an overnight camping trip at a UC Natural Reserve. I was responsible for all class research and reference materials, critical to the learning process in the field. In addition to giving a few guest lectures, I learned first hand from Dr. Zavaleta how to effectively teach the challenging subject material and encourage students to design and perform high caliber research.

Spring 2011

University of California, Santa Cruz, CA  
Undergraduate thesis advising  
Chris Tarango – "Spectral characteristics of California seabird colonies"  
Jared Huxley – "Acoustic activity as an index of relative abundance for an elusive burrow nesting auklet"

### **Pertinent Coursework**

Ornithology, Waterfowl Ecology, Conservation Biology, Animal Behavior, Genetics, Wildlife Ecology, Population Ecology, General Ecology, Herpetology, Dendrology, Botany, Mycology, Statistics

### **Honors and Awards**

2013 – Best speed presentation at the Student Congress on Conservation Science in New York

2012 – Best student presentation at the 38th Annual Meeting of the Pacific Seabird Group

2011 – NSF Graduate Research Fellowship, American Museum of Natural History Chapman Grant Recipient

2010 - North American Nature Photographers Association College Scholarship, Friends of the Long Marine Lab Research Award, American Museum of Natural History Chapman Grant Recipient

2009 – Sigma Xi Grants in Aid of Research Recipient, Friends of the Long Marine Lab Award.

1998- New York City Board of Education District Science Fair, Brooklyn, NY Grade 9 Winner, “Exploring the Correlation between El Niño and Bird Populations Documented by the Christmas Bird Count.”

### **Conference Papers**

2015d BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., TERSHY, B. & CROLL, D. Acoustic Measures of Activity as an Index of Relative Abundance at Seabird Colonies. Second World Seabird Conference. Cape Town, South Africa.

2015c BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., BRADLEY R. Decoding soundscapes of seabird islands as a scalable conservation monitoring tool. 9<sup>th</sup> International Association of Landscape Ecologists World Congress. Portland, Oregon. Invited

2015b BORKER, A., MCKOWN, M. Soundscapes and Conservation. Global Sustainable Soundscapes Network Workshop. Wood River, Nebraska. Invited.

2015a BORKER, A., TARANGO, C., HUXLEY, J., BRADLEY, R., MCKOWN, M. Nocturnal Soundscapes of Southeast Farallon Island: Comparing Spectral and Traditional Approaches to Acoustic Seabird Monitoring. 42nd Annual Meeting of the Pacific Seabird Group. San Jose, California.

2014 BORKER, A., MCKOWN, M., TARANGO, C., TERSHY, B. & CROLL, D. Searching Soundscapes of Seabird Islands for Ecological Patterns. Ecology and acoustics: emergent properties from community to landscape. Paris, France.

2013 BORKER, A., MCKOWN, M., HALBERT, P., SULLIVAN, C., TERSHY, B. & CROLL, D. Automated Acoustic Monitoring of Marbled Murrelets. 26<sup>th</sup> International Congress of Conservation Biology. Baltimore, Maryland.

2012d BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., TERSHY, B. & CROLL, D. Acoustic Measures of Activity as an Index of Relative Abundance at Seabird Colonies. North American Ornithological Congress. Vancouver, British Columbia. Invited.

2012c BORKER, A., MCKOWN, M., TERSHY, B. & CROLL, D. Acoustic Monitoring of Rare and Elusive Seabirds: Scalable Tools for Measuring Conservation Outcomes. North American Congress of Conservation Biology. Oakland, California

2012b BORKER, A., MCKOWN, M., HALBERT, P., SULLIVAN, C., TERSHY, B. & CROLL, D. Monitoring Marbled Murrelets with Acoustic Sensors. 38th Annual Meeting of the Pacific Seabird Group. Oahu, Hawaii.

2012a BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., TERSHY, B. & CROLL, D. Acoustic Measures of Activity as an Index of Relative Abundance at Seabird Colonies. 38th Annual Meeting of the Pacific Seabird Group. Oahu, Hawaii.

2011 BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., TERSHY, B. &

CROLL, D. Acoustic Measures of Activity as an Index of Relative Abundance at Seabird Colonies. 25<sup>th</sup> International Congress of Conservation Biology. Auckland, New Zealand.

2010c BORKER, A., MCKOWN, M., MCCHESENEY, G., BRADLEY, R. & WARZYBOK, P. Acoustic Monitoring of Ashy Storm-petrels. Ashy Storm-petrel monitoring and conservation workshop. Tiburon, CA.

2010b BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., TERSHY, B. & CROLL, D. Using Acoustic Sensors to Monitor Colonial Seabirds. Student Conference on Conservation Science New York 2010 (SCCS-NY). American Museum of Natural History, NY.

2010a BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., TERSHY, B. & CROLL, D. Acoustic Measures of Activity as an Index of Relative Abundance at Seabird Colonies. World Seabird Conference. Victoria, British Columbia.

2009 BORKER, A., MCKOWN, M., ACKERMAN, J., EAGLES-SMITH, C., TERSHY, B. & CROLL, D. Acoustic Measures of Activity as an Index of Relative Abundance at Seabird Colonies. 37th Annual Meeting of the Pacific Seabird Group. Long Beach, CA.