

Curriculum Vitae

Aaron D. Clark

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Biography: Born and raised in Seattle with extensive traveling within Washington State, within the U.S. and internationally. Largely influenced by parents with strong interests in the outdoors, the natural world, science and art.

Professional Objective: To obtain a Ph.D. in biological sciences, and use my training to further humanity's scientific understanding of ecological and evolutionary processes.

Education:

B.A. in Biology from Reed College, Portland, Oregon. May 2000.

Doctoral Candidate in Biology at the University of Washington (current status in Ph.D program).

Honors:

- Commendation for Academic Excellence, Reed College, 2000.
- National Science Foundation Graduate Research Fellowship Program; honorable mention 2003, 2004.

Grants and Fellowships

- Undergraduate thesis research supported by a grant from the HHMI Undergraduate Research Project (HURP)
- HHMI Undergraduate Research Fellowship (Summer 2000)
- Wingfield-Ramenofsky Environmental Biology Award (2008)

Research Experience

- Research Assistantships in Environmental Endocrinology and Conservation Biology. Department of Biology, University of Washington, 2003-present. Supervisors: John C. Wingfield and Samuel K. Wasser.
- Research Technologist II in a molecular genetics and epigenetics oriented research laboratory in the Department of Zoology, University of Washington, October 2001-July 2003. Supervisor: Charles D. Laird.
- Primary Investigator: Amphibian Population Survey of the Mt. Gongga region, Sichuan Province, People's Republic of China, May 2001- June 2001.
- Research assistant studying the evolution and ecology of a natural population of frogs (*Bombina orientalis*) in South Korea, May 2000-July 2000.
- Undergraduate thesis studying the long-term effects of logging on amphibian abundance. Project included design, implementation, analysis and communication of results.

Research Skills

Environmental Endocrinology

- Blood plasma extraction for hormone analysis in several species of bird
- Stress Series to measure corticosteroid stress response to capture and restraint in several species of bird
- Radio-Immuno-Assay (RIA) of hormone levels (including corticosterone, testosterone, estrogen, and dihydrotestosterone)
- Simulated Territorial Intrusion (STI): measuring territorial behavior and hormonal responses

Ecology

- Capture and handling of birds using mist nets, potter traps, clap nets
- Amphibian sampling and capture techniques
- Data analysis using various statistical techniques and computer programs

Molecular Genetics

- Polymerase Chain Reaction (PCR)
- Quantitative PCR
- Use of genomic databases
- Fluorescence-activated cell sorting (FACS)

General

- Orienteering and map reading.
- Hiking, camping, cooking, traveling

Publications and Presentations

- Addis, E. A., A. D. Clark, et al. (2009). Breeding variation of testosterone in the high latitude rufous-collared sparrow, *Zonotrichia capensis australis*. Oxford Univ Press Inc.
- Wingfield, J.C., Moore, I.T., Vasquez, R.A., Sabat, P., Busch, S., Clark, A., Addis, E., Prado, F., Wada, H. (2008) Modulation of the Adrenocortical Responses to Acute Stress in Northern and Southern Populations of *Zonotrichia*. *Ornitologia Neotropical* 19 (Supplement): pp. 241-251
- Wingfield, J.C., Meddle, S.L., Moore, I., Busch, S., Wacker, D., Lynn, S., Clark, A., Vasquez, R., Addis, E. (2007) Endocrine responsiveness to social challenges in northern and southern hemisphere populations of *Zonotrichia*. *Journal of Ornithology* 148 (Supplement 2) pp. S435-S441.
- Addis, E. A., D. S. Busch, et al. (2006). Seasonal social modulation of testosterone in the costa rican rufous-collared sparrow (*Zonotrichia capensis costaricensis*). *Integrative and Comparative Biology* 46: E1-E1.
- Coverdill, A. J., A. D. Clark, et al. (2006). "A comparative study of migratory behavior in white-crowned sparrows (*Zonotrichia leucophrys*)." *Integrative and Comparative Biology* 46: E28-E28.
- Burden, A.F., Manley, N.C., Clark, A.D., Gartler, S.M., Laird, C.D., Hansen, R.S. (2005). Hemimethylation and non-CpG methylation levels in a promoter region of human LINE-1 (L1) repeated elements. *Journal of Biological Chemistry* 280 (15). pp. 14413-14419.
- Addis, E., Wacker, D., Clark, A., Coverdill, A., Meddle, S., Walker, B., Landys, M., Reneerkens, J., Wingfield, J.C. (2004). Influence of Habitat Condition on Breeding in *Plectrophenax nivalis* and *Calcarius lapponicus*. Poster presentation. SICB Annual meeting 2005
- Laird, C. D., Pleasant, N.D., Clark, A.D., Sneed, J.L., Hassan, K.A., Vary, J., Morgan, T., Hansen, R.S., Stöger, R., (2004). Hairpin-bisulfite PCR: Assessing Epigenetic Methylation Patterns on Complementary Strands of Individual DNA Molecules. *PNAS*, 101 (1). pp. 204-209
- Clark, A.D. (2001). Work Report: Amphibian Monitoring in the Gongga Mountain Region. Chengdu, Chinese Academy of Sciences. 2
- Clark, A.D. (2000). Old-Growth Logging and Amphibians: A Study of Edge Effects in the Pacific Northwest. *Biology* (Undergraduate Thesis). Portland, OR, Reed College.

Teaching Experience

Teaching Assistantships for Biology courses at the University of Washington

- Biology 119: Introduction to Human Physiology
- Biology 161: Introductory Biology
- Biology 354: Foundations in Evolution
- Biology 356: Foundations in Ecology
- Biology 452: Vertebrate Natural History
- Biology 453: Comparative Vertebrate Anatomy

Instructor: Biology 119, Spring quarter 2009 at the University of Washington

Language Skills

- Fluency in Spanish (speaking, reading and writing).
- Small traveler's vocabularies in French, Indonesian, Korean, Czech, German, Chinese, and Japanese.

Professional Licenses and Certifications

- PADI certified SCUBA diver (since 1989).
- National Safety Council "Coaching the Van Driver" Certification

Professional Memberships

- The Society for Comparative and Integrative Biology

Related Extracurricular Activities

- SCUBA diving
- Birding (Bird watching)
- Extensive international travel

Interests: Ornithology, Herpetology, Mycology, Botany, traveling, white-water kayaking, surfing, hiking, camping, cooking, snowboarding, photography

References

•John C. Wingfield, Professor and Endowed Chair in Physiology, University of California, Davis.

Tel. (530) 752-4679, email jcwingfield@ucdavis.edu

•Charles D. Laird, Professor of Biology, University of Washington.

Tel. (206) 616-6267, email cdlaird@u.washington.edu

•Robert H. Kaplan, Professor of Biology, Reed College.

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