

**David Charles Collar**  
*Curriculum Vitae*

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**EDUCATION**

**University of California (UC), Davis**, Davis, CA

**Ph.D. in Population Biology**, September 2007

Dissertation title: *Evolution of morphological and functional diversity in centrarchid fishes.*

Advisor: Dr. Peter Wainwright

**University of Chicago**, Chicago, IL

**B.A. in Biological Science**, with honors, June 2000

**CURRENT POSITION**

**Harvard University**, Cambridge, MA

**Post-doctoral research fellow**, October 2007 -- present

Advisor: Dr. Jonathan Losos

**PUBLICATIONS**

**Collar, D. C.**, B. C. O'Meara, P. C. Wainwright, and T. J. Near. *In press*. Piscivory limits diversification of feeding morphology in centrarchid fishes. *Evolution*.

Revell, L. J. and **D. C. Collar**. *In press*. Phylogenetic analysis of the evolutionary correlation using likelihood. *Evolution*.

**Collar, D. C.** and P. C. Wainwright. *In press*. Ecomorphology of centrarchid fishes. *In* Centrarchid fishes: diversity, biology and conservation. S. J. Cook and D. P. Philipp, eds. Blackwell Scientific Press, Cambridge, UK.

Revell, L. J., L. J. Harmon, and **D. C. Collar**. 2008. Phylogenetic signal, evolutionary process, and rate. *Systematic Biology* 57:591-601. (doi: 10.1080/10635150802302427)

Holzman, R., **D. C. Collar**, S. W. Day, K. L. Bishop, and P. C. Wainwright. 2008. Scaling of suction-induced flows in bluegill: morphological and kinematic predictors for the ontogeny of feeding performance. *Journal of Experimental Biology* 211:2658-2668. (doi: 10.1242/jeb.018853)

**Collar, D. C.**, P. C. Wainwright, and M. E. Alfaro. 2008. Integrated diversification of locomotion and feeding in labrid fishes. *Biology Letters* 4:84-86. (doi:10.1098/rsbl.2007.0509)

Wainwright, P. C., A. M. Carroll, **D. C. Collar**, S. W. Day, T. E. Higham and R. A. Holzman. 2007. Suction feeding mechanics, performance and diversity in fishes. *Integrative and Comparative Biology* 47:96-106.

**Collar, D. C.** and P. C. Wainwright. 2006. Discordance between morphological and mechanical diversity in the feeding mechanism of centrarchid fishes. *Evolution* 60:2575-2584.

**Collar, D. C.**, T. J. Near. P. C. Wainwright. 2005. Comparative analysis of morphological diversity: does disparity accumulate at the same rate in two lineages of centrarchid fishes? *Evolution* 59:1783-1794.

Carroll, A. M., P. C. Wainwright, S. H. Huskey, **D. C. Collar**, R. G. Turingan. 2004. Morphology predicts suction feeding performance in centrarchid fishes. *Journal of Experimental Biology* 207:3873-3881.

### **GRANTS, FELLOWSHIPS AND AWARDS**

**Merton Love Award** for best dissertation in Ecology and Evolution, UC Davis, 2007.

**ARCS Foundation Scholarship**, 2003.

**Center for Population Biology Research Award**, UC Davis, awarded annually 2002-2005.

**Population Biology Graduate Group Fellowship**, UC Davis, awarded annually 2002-2006.

**Population Biology First Year Fellowship**, UC Davis, 2001.

**Friday Harbor Marine Lab Scholarship**, University of Washington, awarded to support enrollment in course, *Functional Morphology and Ecology of Marine Fishes*, 2001.

**Amos Alonzo Stagg Medal**, University of Chicago, Order of the "C", awarded to senior male athlete with the best all-around record for athletics, scholarship and character.

### **TEACHING EXPERIENCE**

**Teaching Assistant**, *Introduction to Evolution*, Section of Evolution and Ecology, UC Davis, 2007.

**Co-Instructor**, *Workshop in Applied Phylogenetics*, Section of Evolution and Ecology, UC Davis, 2007.

**Teaching Assistant**, *Introductory Biology: Animal Diversity and Evolution*, Section of Evolution and Ecology, UC Davis, 2004, 2005.

**Teaching Assistant**, *Phylogenetic Analysis of Vertebrate Structure*, Section of Evolution and Ecology, UC Davis, 2004.

### **INVITED SEMINARS**

"Evolution of morphological and functional disparity in fishes." Department of Ecology and Evolutionary Biology, University of Michigan, March 13, 2008.

"What factors affect the evolution of morphological and functional disparity in centrarchid fishes?" Merton Love Award Seminar, UC Davis, May 31, 2007.

“Testing for shifts in rates of morphological, functional and ecological evolution in centrarchid fishes.”  
Museum of Vertebrate Zoology, University of California, Berkeley, September 20, 2006.

### **CONTRIBUTED PRESENTATIONS**

“Correlated evolution of feeding morphology in piscivorous versus non-piscivorous centrarchid fishes.”  
Society of Integrative and Comparative Biology, Boston, MA, 2009 (expected).

“Complexity in the feeding mechanism mitigates a diet tradeoff in centrarchid fishes.” Society of  
Integrative and Comparative Biology, San Antonio, TX, 2008.

“Discordance between mechanical and morphological diversity in the suction feeding mechanism of  
centrarchid fishes,” Society for Integrative and Comparative Biology. Phoenix, AZ, 2007.

“Decoupled morphological and mechanical diversity in the suction feeding mechanism of centrarchid  
fishes.” Society for the Study of Evolution, Stony Brook, NY, 2006.

“Testing the bass fisherman’s hypothesis: Does reaching an adaptive peak limit diversification of the  
feeding apparatus in *Micropterus* (Teleostei: Centrarchidae)?” Society for Integrative and  
Comparative Biology. Orlando, FL, 2006.

“Does morphological disparity evolve at the same rate in two lineages of centrarchid fishes?” American  
Society of Ichthyologists and Herpetologists, Symposium on Evolution and Ecology of the  
Centrarchidae. Tampa, FL, 2005.

“Comparative analysis of morphological diversity: trophic evolution in centrarchid fishes.” Society for  
Integrative and Comparative Biology. San Diego, CA, 2005.

### **PROFESSIONAL SERVICE**

Reviewer for *Copeia*, *Evolution*, *Functional Ecology*, *Hydrobiologia*, *Journal of Evolutionary Biology*,  
*Journal of Fish Biology*, *Integrative and Comparative Biology*.

Judge for Best Student Oral Presentation in the Division of Systematic and Evolutionary Biology, Society  
for Integrative and Comparative Biology Annual Meeting, 2008.

Co-Organizer for Center for Population Biology Workshop in Paleontology, UC Davis, Spring 2007.

Student representative on Admissions Committee for Population Biology Graduate Group. UC Davis,  
2004, 2005.

### **PROFESSIONAL MEMBERSHIPS**

American Society of Ichthyologists and Herpetologists  
Society for Integrative and Comparative Biology  
Society for the Study of Evolution  
Society of Systematic Biologists