

# LAUREN M. CHAN

## *Curriculum Vitae*

Department of Biology, Duke University  
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## EDUCATION

- 2007 Ph.D., Ecology and Evolutionary Biology, Cornell University, Ithaca, New York. "Life history and genetic diversity in desert amphibians and reptiles."  
1999 B.A. with Honors, Integrative Biology, University of California, Berkeley.

## ACADEMIC POSITIONS

- 2008 – present Postdoctoral Associate and Lab Manager, Department of Biology, Duke University, Durham, North Carolina.  
2007 – 2008 Postdoctoral Associate, Department of Biology, Brigham Young University, Provo, Utah.

## PUBLICATIONS (\*undergraduate or \*\* highschool student co-author)

- Chan, L. M.** and K. R. Zamudio. 2009. Population differentiation of temperate amphibians in unpredictable environments. *Molecular Ecology*, doi: 10.1111/j.1365-294X.2009.04273.x
- Zamudio, K. R., J. M. Robertson, **L. M. Chan**, and I. Sazima. 2009. Population structure in an extreme narrow endemic: evidence for drift offset by asymmetrical migration in a tiny geographic range. *Biological Journal of the Linnean Society*, 97: 259-274.
- Chan, L. M.**, L. A. Fitzgerald, and K. R. Zamudio. 2009. The scale of genetic differentiation in the Dunes Sagebrush-Lizard (*Sceloporus arenicolus*), an endemic habitat specialist. *Conservation Genetics*, 10 (1): 131-142.
- Johnson, L. A., **L. M. Chan**, T. L. Weese, L. D. Busby,\* and S. McMurry\*. 2008. Nuclear and cpDNA sequences combined provide strong inference of higher phylogenetic relationships in the phlox family (Polemoniaceae). *Molecular Phylogenetics and Evolution*, 48: 997-1012.
- Zamudio, K. R. and **L. M. Chan**. 2008. Alternative reproductive tactics in amphibians. In R. Oliveira, M. Taborsky, and J. Brockman eds. *Alternative Reproductive Tactics: an Integrative Approach*. Pp. 300-331. Cambridge University Press.
- Chan, L. M.** 2007. Twelve novel microsatellite markers for the Great Plains toad, *Bufo cognatus*. *Molecular Ecology Notes* 7: 278-280.
- Chan, L. M.** 2007. Characterization of microsatellite markers for Couch's Spadefoot toad (*Scaphiopus couchii*) and cross-amplification in other species of the Family Scaphiopodidae. *Molecular Ecology Notes* 7: 318-320.

## PUBLICATIONS (continued)

- Chan, L. M.**, L. A. Fitzgerald, and K. R. Zamudio. 2007. Characterization of microsatellite markers for the endemic sand dune lizard, *Sceloporus arenicolus*. *Molecular Ecology Notes* 7: 337-339.
- Chan, L. M.** 2003. Seasonality, microhabitat, and cryptic variation in tropical salamander reproductive cycles. *Biological Journal of the Linnean Society* 78 (4): 489-496.
- Chan, L. M.**, K. R. Zamudio, and D. B. Wake. 2001. Relationships of the salamandrid genera *Paramesotriton*, *Pachytriton*, and *Cynops* based on mitochondrial DNA sequences. *Copeia* 2001 (4): 997-1009.
- Chan, L. M.** 2001. *Pseudoeurycea goebeli*, diet. *Herpetological Review* 32 (3): 179.
- Chan, L. M.** 2001. *Bufo canorus*, larval cannibalism. *Herpetological Review* 32 (2): 101.
- Zamudio, K. R. and **L. M. Chan**. 2001. Book review, *Herpetology*. *Copeia* 2001 (1): 294-296.

## MANUSCRIPTS SUBMITTED & IN PREPARATION

(manuscripts available for all listed)

- Vredenburg, V. T., **L. M. Chan**, J. R. Romansic, and T. Tunstall. A field test of the effects of UV-B radiation on three high elevation amphibians in California. Accepted pending revisions to *Copeia*.
- Chan, L. M.**, L. A. Johnson, D. Clark, and S. McMurry.\* Intraspecific phylogeography of the Mussentuchit Gilia (*Aliciella tenuis*) inferred from cpDNA is confounded by recurrent introgression. In preparation.
- Chan, L. M.**, R. Greene,\*\* and K. R. Zamudio. The ecological context of breeding affects reproduction and the maintenance of genetic diversity in two desert anurans. In preparation for *Journal of Heredity*.
- Chan, L. M.** and R. Greene\*\*. Larval mortality in ephemeral ponds does not reduce genetic diversity in desert anurans. In preparation for *Biological Journal of the Linnean Society*.
- Chan, L. M.** Utilizing multiple estimates of variance and inbreeding effective size to better understand population biology. In preparation for *Evolution*.
- Johnson, L. A., **L. M. Chan**, H. Cairns\*, and D. Barnes\*. How similar is similar? Sampling issues and hypothesis testing of non-spiny *Navarretia* relationships. In preparation for *Systematic Botany*.
- Johnson, L. A., **L. M. Chan**, D. Hendrickson\*, and K. Burr\*. *Navarretia furnissii*, a new diploid species related to the tetraploid *Navarretia saximontana*. In preparation for *Madroño*

## GRANTS & AWARDS

- 2007 Conservation Genetics Data Analysis Course, Tuition, BYU (\$1,100)
- 2006 Orenstein Fund Recipient, Cornell University, (\$500)
- 2006 Student Scholarship, Summer Institute of Statistical Genetics, (\$1,000)
- 2004 – 2006 National Science Foundation Doctoral Dissertation Improvement Grant, “Spatial analysis of effective size and genetic structure in desert breeding anurans” (\$12,000)

## **GRANTS & AWARDS (continued)**

- 2004 – 2005 Budweiser Conservation Scholarship, National Fish and Wildlife Foundation, “Understanding fine-scale patterns of distribution: an integrative approach” (\$10,000)
- 2006 American Association for University Women, Dissertation Fellowships, alternate list.
- 2004 Upstate Herpetological Association Grant (\$300)
- 2004 Edna Bailey Sussman Internship (\$4,000)
- 2001, '03, '04 Andrew W. Mellon Student Research Grant (3x, total of \$3,700)
- 2000 – 2004 National Science Foundation Pre-doctoral Fellowship (three years of tuition and stipend).
- 2002, '03 Cornell University Graduate Student Conference Grant (2x, total of \$700)
- 2001, '03 Theodore Roosevelt Memorial Fund, American Museum of Natural History (2x, total of \$3,220)
- 2002 Liu Memorial Award (\$1,500)
- 2001 Sigma Xi Award, Cornell University Chapter (\$425)
- 2001 Gaige Award, American Society of Ichthyologists and Herpetologists (\$500)
- 1999 Joseph LeConte Award in Natural History, Department of Integrative Biology, University of California, Berkeley
- 1998 Gompertz Summer Research Grant, University of California, Berkeley (\$3,000)

## **TEACHING & MENTORING EXPERIENCE**

- 2008 – present Mentor in the laboratory to visiting students and scientists from Madagascar as well as to undergraduates from Duke University, Stanford, and University of North Carolina.
- 2007 – 2008 Mentor to Masters students and undergraduates at Brigham Young University.
- Spring & Fall 2006 Teaching Assistant, Cornell University – BioEE 278 Evolutionary Biology, Writing in the Majors. Included developing, organizing, and instructing writing intensive sections for advanced Evolutionary Biology students that was centered around student-led discussions of the primary literature.
- Fall 2005 Teaching Assistant, Cornell University – Development of a laboratory manual for Herpetology integrating digital information with specimen identification.
- Spring 2005 Teaching Assistant, Cornell University – BioEE 470/472, Herpetology.
- Fall 2004 Teaching Assistant, Cornell University – BioEE 263, Field Ecology.
- 2003 – '04 Mentor to highschool and college students in both the field and laboratory.
- Winter 2002 Co-Instructor, St. Mary's College – Field biology research course in East Africa. Students each conducted independent field-research involving invertebrates, reptiles, and mammals.
- Fall 2001 Teaching Assistant, Cornell University – BioEE 278, Evolutionary Biology.

## **TEACHING & MENTORING EXPERIENCE** (continued)

Fall 2000 Teaching Assistant, CU – BioG 207, Evolution for non-majors.

1997 – 1998 Undergraduate Student Instructor, UC Berkeley – Bio 1B, Field Sections.

## **SELECTED PRESENTATIONS** (\*invited)

\* Systematics Discussion Group, Department of Biology, Duke University, Fall 2008.

\* EcoLunch, Department of Integrative Biology, Brigham Young University, Spring 2008.

\* Department of Ecology and Evolutionary Biology, Cornell University, 2007.

\* Guest Lecturer, Herpetology, Cornell University, 2005.

Cornell University Ecology and Evolutionary Biology January Symposium, 2005.

Society for Integrative and Comparative Biology Annual Meeting, 2005.

Cornell University Ecology and Evolutionary Biology January Symposium, 2004.

\* Herpetology Club, Cornell University, 2004.

\* Department of Integrative Biology, U. C. Berkeley, Commencement, 1999.

## **COURSE & WORKSHOP PARTICIPATION**

2009 Will attend: Statistical Phylogeography, Southwestern Research Station, Portal, Arizona.

2007 Conservation Genetics Data Analysis Course, Flathead Lake Biological Station, Montana.

2006 Summer Institute of Statistical Genetics, Seattle, Washington – Population Genetics and Phylogenetics Modules.

## **SERVICE**

2007 Judge, Society of Systematic Biology Awards for Graduate Student Research

2006 Judge, Andrew W. Mellon Student Research Grants, Cornell University.

2006 Judge, Kieckhefer Adirondack Fellowships, Cornell University

2003 Scientific Advisory Committee, Southwestern Research Station, American Museum of Natural History.

Reviewer for *Ecotoxicology*, *Heredity*, *Herpetologica*, *Conservation Genetics*, *Copeia*, and *Pacific Science*.

## REFERENCES

- 1) Dr. Kelly R. Zamudio, Department of Ecology and Evolutionary Biology, Corson Hall, Cornell University, Ithaca, New York 14853-2701. Tel: 607.254.4212. email: krz2@cornell.edu. (Ph.D. advisor).
- 2) Dr. Anne D. Yoder, Department of Biology, Box 90338, Duke University, Durham, North Carolina 27708. Tel: 919.660.7275. email: anne.yoder@duke.edu (Postdoctoral advisor).
- 3) Dr. Leigh A. Johnson, Department of Integrative Biology, 401 Widstoe Building, Brigham Young University, Provo, Utah 84602. Tel: 801.422.5241. email: leigh\_johnson@byu.edu. (Postdoctoral advisor).
- 4) Dr. Harry W. Greene, Department of Ecology and Evolutionary Biology, Corson Hall, Cornell University, Ithaca, New York 14853-2701. Tel: 607.254.4265. email: hwg5@cornell.edu. (Ph.D. committee member).
- 5) Dr. Peter L. Marks, Department of Ecology and Evolutionary Biology, Cornell University, Ithaca, New York 14853-2701. email: plm6@cornell.edu. (TAed Field Ecology for Dr. Marks).
- 6) Dr. Lee A. Fitzgerald, Department of Wildlife and Fisheries Sciences, Texas A & M University, College Station, Texas 77843. Tel: 979.845.5777. email: lfitzgerald@tamu.edu. (Collaborator).