

# Samuel Nathan Crane

**AMERICAN MUSEUM OF NATURAL HISTORY**  
THE SACKLER INSTITUTE FOR COMPARATIVE GENOMICS  
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## Professional Preparation

**PH.D. STUDENT, BIOLOGY: ECOLOGY, EVOLUTIONARY BIOLOGY, AND BEHAVIOR** *Expected 2011*  
Graduate Center, The City University of New York.

*Thesis advisor:* Dr. Rob DeSalle, American Museum of Natural History.

*Committee members:* Dr. Mike Hickerson (CUNY), Dr. Amy Berkov (CUNY), Dr. Richard Pearson (AMNH),  
Dr. Andrea Sequeira (Wellesley College).

**BACHELOR OF SCIENCE: ECOLOGY & EVOLUTIONARY BIOLOGY** *2005*  
University of Washington, Seattle.

## Appointments

**ADJUNCT LECTURER** *2006–2008*

Baruch College, The City University of New York, Department of Natural Sciences. New York, NY

**CURRICULUM DEVELOPMENT** *2007–Present*

Center for Advanced Study in Education, The Graduate Center, The City University of New York. New York, NY.

**LECTURER** *2007*

American Museum of Natural History, Education Department, High School After-school Program.

**INTERN** *2004–2005*

Northwest Fisheries Science Center, National Oceanic and Atmospheric Administration. Microbiology Program, Resource Enhancement and Utilization Technologies Division.

## Awards

**NSF GRADUATE TEACHING FELLOWS IN K-12 EDUCATION** *2008–Present*

## Publications

Wiens GD, Rockey DD, Wu Z, Chang J, Levy R, **Crane S**, Chen DS, Capri GR, Burnett JR, Sudheesh PS, Schipma MJ, Burd H, Bhattacharyya A, Rhodes LD, Kaul R, Strom MS. 2008. Genome Sequence of the Fish Pathogen *Renibacterium salmoninarum* Suggests Reductive Evolution away from an Environmental *Arthrobacter* Ancestor. *Journal of Bacteriology*. 190(21): 6970–6982. DOI: 10.1128/JB.00721-08

Ponnerassery S, **Crane S**, Cain KD, and Strom M. 2007. Sortase inhibitor phenyl vinyl sulfone inhibits *Renibacterium salmoninarum* adherence and invasion of host cells. *Diseases of Aquatic Organisms*. 78:115-127. DOI: 10.3354/dao01859

Kolokotronis SO, **Crane SN**, and DeSalle R. Genetic differentiation within the *Mycobacterium tuberculosis* complex using spacer oligotyping of the Direct Repeat locus and genomic 16S rRNA barcodes. In preparation.

## Presentations

**Crane SN**. December 2007. *Resident Weevil: Population Genetic Structure of the Plum Curculio, a Native Fruit Pest*. 2008 Annual Meeting, Entomological Society of America. Reno, NV, USA.

Strozak V, Esposito L, and **Crane SN**. May 2008. *What's in Your Backyard: Using the Local Environment to Integrate Research into High School Classes*. Communicating Science and Mathematics: An NSF GK-12 NY/NJ/PA Regional Meeting and Teacher Professional Development Workshop. Newark, NJ, USA.

**Crane SN**. December 2007. *Population Subdivision of a Fruit Pest*. 2007 Annual Meeting, Entomological Society of America. San Diego, CA, USA.

**Crane SN**, and Strom MS. November 2005. *Identification of a sortase enzyme and its substrates in Renibacterium salmoninarum: Solving problems with bioinformatics*. BKD—Challenge for the 21st Century Conference. Seattle, WA, USA.

## Posters

**Crane SN**. June 2008. *Niche Model of a Native Agricultural Pest, the Plum Curculio Beetle (Coleoptera: Curculionidae): Implications for Pest Management*. Presented at the annual Evolution conference in Minneapolis, MN, USA.

Frazier M, Dillon M, and **Crane SN**. January 2007. *Altitudinal clines in insect body size: Physiological interpretations of mixed patterns*. Poster presented by M Frazier at the Society for Integrative and Comparative Biology 2007 Annual Meeting in Phoenix, AZ, USA.

**Crane SN**, Chen D, and Strom MS. November 2005. *Renibacterium salmoninarum Genome Sequencing Project Summary*. Presented at the Bacterial Kidney Disease—Challenge for the 21st Century conference in Seattle, WA, USA.

## Synergistic Activities

**STUDENT REPRESENTATIVE** 2007–Present

Comparative Biology PhD Program Committee. Richard Gilder Graduate School, American Museum of Natural History.

**STUDENT REPRESENTATIVE** 2008–Present

Ecology, Evolutionary Biology, and Behavior PhD sub-Program Committee. The Graduate Center, The City University of New York.

**ANONYMOUS REVIEWER**

Journal of Heredity, Mitochondrial DNA

## Courses Taught

**BIOLOGY 1003, SURVEY OF THE LIVING WORLD** Lab

Baruch College, The City University of New York, NY.

*Spring 2006, Fall 2006, Fall 2007, Spring 2008*

**BIOLOGY 1005, GENERAL BIOLOGY: A HUMAN ORIENTATION** *Lab*

Baruch College, The City University of New York, NY.  
*Spring 2007, Summer 2007, Summer 2008*

**ENVIRONMENTAL STUDIES 1020, PRINCIPLES OF ECOLOGY.** *Lab*

Baruch College, The City University of New York, NY.  
*Summer 2006*

**BIODIVERSITY AND CONSERVATION** *Lecture & Lab*

American Museum of Natural History After-School Program for High School Students.  
*January–February 2007*

**LIVING ENVIRONMENT** *High School Class*

James Baldwin School, New York City.  
*Fall 2008*

**EVERYDAY CHEMISTRY** *High School Class*

James Baldwin School, New York City.  
*Fall 2008*

**SCIENCE & SOCIETY** *High School Class*

James Baldwin School, New York City.  
*Fall 2008*

## Professional Societies

- Entomological Society of America *2006–Present*
- National Center for Science Education *2006–Present*
- The Society for Systematic Biologists *2006–Present*
- Coleopterists Society *2008–Present*

*November 2008*