

DANIEL GÓMEZ UCHIDA

Departamento de Zoología
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Citizenship: Chilean

MISSION

- 1) Lead a vibrant research laboratory focused on the use of genetic and genomic tools to address consequential questions in ecology, evolution, and conservation;
- 2) Implement and teach innovative courses that expose students to unifying principles in biology, ranging from molecules to ecosystems;
- 3) Mentor and prepare graduates and undergraduates to succeed in the professional world.

EDUCATION

- 2006** **Ph.D. (fisheries science: population genetics)**
Oregon State University (USA)
- 2002** **M.S. (fisheries)**
Universidad de Concepcion (Chile)
- 1996** **B.S. (marine biology: summa cum laude)**
Universidad de Concepcion (Chile)

ACADEMIC & LABOR EXPERIENCE

- 2009-2011** **Research Associate**
University of Washington, School of Aquatic & Fishery Sciences (USA)
- 2007-2009** **Visiting Postdoctoral Fellow**
Dalhousie University & Parks Canada
- 2006-2007** **Paternity leave**
- 2006** **Advisor – Pacific Marine Conservation Council (PMCC)**
Expert panel discussion on area-based management for west coast groundfishes.
- 2002-2006** **Graduate Research Assistant**
Oregon State University, Hatfield Marine Science Center (USA)
- 2001-2002** **Visiting Scientist**
Molecular Ecology and Fisheries Genetics Lab, The University of Hull (UK)
- 1998-2001** **Graduate Research/Teaching Assistant**
Universidad de Concepcion (Chile)
- 1996-1998** **Fisheries Supervisor**
Chilean National Fisheries Service

RESEARCH PRODUCTIVITY

MANUSCRIPTS SUBMITTED

- 11) **Gomez-Uchida D**, JE Seeb, C Habicht & LW Seeb (2011) Allele frequency stability in large, wild exploited populations over multiple generations: insights from Alaska sockeye salmon. *Canadian Journal of Fisheries and Aquatic Sciences*.

MANUSCRIPTS IN PRINT

- 10) **Gomez-Uchida D**, JE Seeb, MJ Smith, C Habicht, TP Quinn & LW Seeb (2011) Single nucleotide polymorphisms mirror geographic and ecological complexity among Alaskan sockeye salmon populations. *BMC Evolutionary Biology* 11:48.
- 9) **Gomez-Uchida D**, TW Knight & DE Ruzzante (2009) Interaction between landscape and life-history attributes on genetic diversity, neutral divergence, and gene flow in a pristine community of salmonids. *Molecular Ecology* 18: 4854–4869.
- 8) **Gomez-Uchida D**, KP Dunphy, MF O'Connell & DE Ruzzante (2008) Genetic divergence between Arctic charr morphs in Gander Lake, Newfoundland: roles of migration, mutation and unequal effective population size. *Journal of Fish Biology* 73: 2040-2057.
- 7) **Gomez-Uchida D** & MA Banks (2007) A simulation approach of population differentiation and individual assignment to assess relevant genetic data for rockfish conservation. In: J Heifetz, J DiCosimo, AJ Gharrett, MS Love, VM O'Connell & RD Stanley (eds) *Biology, Assessment, and Management of North Pacific Rockfishes*. Alaska Sea Grant, University of Alaska Fairbanks: 141-152 (book chapter).
- 6) **Gomez-Uchida D** & MA Banks (2006) Estimation of effective population size for the long-lived darkblotched rockfish *Sebastes cramerii*. *Journal of Heredity* 97: 603-606.
- 5) Miller JA, MA Banks, **D Gomez-Uchida** & AL Shanks (2005) A comparison of population structure in black rockfish (*Sebastes melanops*) as determined with otolith microchemistry and microsatellite DNA. *Canadian Journal of Fisheries and Aquatic Sciences* 62: 2189-2198.
- 4) **Gomez-Uchida D** & MA Banks (2005) Microsatellite analyses of spatial genetic structure in darkblotched rockfish (*Sebastes cramerii*): is pooling samples safe? *Canadian Journal of Fisheries and Aquatic Sciences* 62: 1874-1886.
- 3) **Gomez-Uchida D**, EA Hoffman, WR Ardren & MA Banks (2003) Microsatellite markers for the heavily exploited canary (*Sebastes pinniger*) and other rockfish species. *Molecular Ecology Notes* 3: 387-389.
- 2) **Gomez-Uchida D**, D Weetman, L Hauser, R Galleguillos & M Retamal (2003) Allozyme and AFLP analysis of genetic population structure in the hairy edible crab *Cancer setosus* from the Chilean coast. *Journal of Crustacean Biology* 23(2): 486-494.
- 1) Aliaga B, **D Gomez Uchida** & S Neira (2001) Bioeconomic analysis of pacific sardine (*Sardinops sagax*) y anchovy (*Engraulis ringens*) fishery from northern Chile. *Investigaciones Marinas Valparaíso* 29(2): 15-23 (in spanish).

Daniel Gomez-Uchida's CV

REPORTS

Gomez-Uchida D & DE Ruzzante (2008) Genetic assessment of Atlantic salmon (*Salmo salar* L.) populations from Corner Brook, Humber River, and Hughes Brook in Western Newfoundland. Report prepared for the Salmon Preservation Association for the Waters of Newfoundland (SPAWN). Wild Atlantic Salmon Genome Project. 93 West Street, Suite 311 Corner Brook NL A2H 2Y6.

Gomez-Uchida D & MA Banks (2007) Microsatellites reveal genetic structure and effective population size in darkblotched rockfish (*Sebastes crameri*). In: Berntson, E.A. Levin, P., and Moran, P. (eds.) Conservation of North Pacific rockfishes: U.S. Dept. Commer., NOAA Technical Report. NMFS-NWFSC-80.

FUNDING

GRANTS & FELLOWSHIPS

- 2009-2011 Senior Postdoctoral Fellowship (US\$100,005 over 2 years)**
Genomic applications in Pacific Salmon – University of Washington (USA)
- 2007-2009 NSERC Visiting Fellowship (CAN\$87,520 over 2 years)**
Conservation genetics of salmonids, Dalhousie University (Canada)
- 2004 Mia J Tegner Memorial Research Award (US\$3,000)**
Marine Conservation Biology Institute, California (USA)
Principal Investigator
- 2002-2006 Coastal Oregon Marine Experiment Station (US\$80,000 over 4 years)**
Graduate Research Assistantship
Oregon State University & Hatfield Marine Science Center (USA)
- 2002-2004 Mamie Markham Research Award (US\$9,400 over 3 years)**
Hatfield Marine Science Center, Oregon State University (USA)
Principal Investigator
- 1999-2001 Universidad de Concepcion Research Grant (US\$10,000 over 2 years)**
Internal Research Funds
Graduate Student & Principal Writer

OTHER AWARDS

- 2008 Olin Fellowship, Atlantic Salmon Federation (CAN\$ 1,000 for 1 year)
- 2004 H. Richard Carlson Scholarship, Dept. Fisheries & Wildlife, OSU (US\$1,500)
- 2004 13th Western Groundfish Conference Travel Scholarship (CAN\$ 500)
- 2003 American Fisheries Society, Student Travel Award (US\$500)

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TEACHING EXPERIENCE (Lecturer = L; Guest Lecturer = GL; Teaching Assistant = TA)

GRADUATE COURSES

- 2011 Advanced Evolutionary Biology 4213003 (L)**
Departamento de Zoología, Universidad de Concepción
- 2011 Independent Study FISH 600 (L: 10 sessions)**
School of Aquatic and Fishery Sciences, University of Washington
- 2011 Applications of new sequencing technologies FISH 510 (GL: 1 session)**
School of Aquatic and Fishery Sciences, University of Washington
- 2010 Ecological and evolutionary genetics FISH 510 (GL: 1 session)**
School of Aquatic and Fishery Sciences, University of Washington
- 2010 Spatial connectivity & management FISH 510A (GL: 1 session)**
School of Aquatic and Fishery Sciences, University of Washington
- 2010 Independent study FISH 600 (GL: 13 sessions)**
School of Aquatic and Fishery Sciences, University of Washington
- 2009 Independent study FISH 600 (GL: 1 session)**
School of Aquatic and Fishery Sciences, University of Washington
- 2004 Coastal ecology & resource management FW 526 (GL: 1 session)**
Dept. Fisheries & Wildlife, Oregon State University (USA)
- 2004 Coastal population genetics FW 590X (GL: 1 session)**
Dept. Fisheries & Wildlife, Oregon State University (USA)

UNDERGRADUATE COURSES

- 2011 Evolutionary biology of animal and plant organisms 245243 (L)**
Departamento de Zoología, Universidad de Concepción
- 2007-2008 Introductory ecology BIOL 2060 (GL: 5 sessions)**
Dept. of Biology, Dalhousie University (Canada)

MENTORING

- 2011 Pamela Vargas (Universidad de Concepción)**
Areas of interest: biogeography, invasive fishes
- 2010 Eleni Petrou (University of Washington)**
Areas of interest: chum salmon evolution and conservation genetics
- 2009 Matthew Morris (Dalhousie University)**
Thesis evaluator. Title: "Evidence for outbreeding depression based on compensatory growth in farmed/wild Atlantic salmon (*Salmo salar*) hybrids"
- 2008 Abby Van Der Jagt (Dalhousie University)**
Biotechnology placement – provided training in genotyping techniques
- 2005 Christine Singbush (University of Rochester, New York)**
Research Experience for Undergraduates (REU) – NSF program
Hatfield Marine Science Center (USA)
- 2004 Martha-Ruth Eisley (George Fox University, Oregon)**
Biologist placement at Hatfield Marine Science Center (USA)

OTHER CONTRIBUTIONS TO RESEARCH

INVITED SEMINARS

- 2011 University of Washington, SAFS**
Title: "Genetic stability of large exploited populations over multiple generations"
- 2011 Union College, Schenectady, NY**
Title: "Genetic and genomic approaches in evolutionary biology"
- 2010 Washington Department of Fish and Wildlife, Olympia, WA**
Title: "Old and new genetic tools for salmon ecology, evolution, and conservation"
- 2009 University of Washington, SAFS**
Title: "Landscape genetics of a pristine community of salmonids"
- 2009 Dalhousie University, Department of Biology**
Title: "Fishing for gene flow patterns in the wild: a multispecies approach"
- 2009 Maurice Lamontagne Institute, Fisheries and Oceans Canada**
Title: "Evolutionary past and conservation future of Pacific rockfishes"
- 2005 American Association for the Advancement of Science**
Title: "Successful breeders are surprisingly few and far between: implications for fisheries management"
- 2004 NOAA Fisheries/National Marine Fisheries Service**
Workshop in Conservation of Pacific Rockfishes: Ecological Genetics and Stock Structure

CONFERENCES (ORAL, POSTER†)*

- 2011 141st American Fisheries Society annual meeting (Seattle)***
- 2011 "Identity-by-descent" Fisheries Genetics Meeting (Olympia)***
- 2010 Alaska Salmon Program Meeting (Seattle)***
- 2010 SNP III Workshop (Blaine)***
- 2009 Alaska Salmon Program Meeting (Seattle)***
- 2009 Washington State Collaborative Research in Genetics (Olympia)***
- 2009 Canadian Society for Ecology and Evolution (Halifax)***
- 2008 Canadian Conference For Fisheries Research (Halifax)†**
- 2005 135th American Fisheries Society annual meeting (Anchorage)***
- 2004 13th Western Groundfish Conference (Victoria)***
- 2003 133rd American Fisheries Society annual meeting (Quebec City)*†**

PEER-REVIEW EXPERIENCE

Manuscripts: Alaska Sea Grant, *Aquatic Biology*, *Biological Journal of the Linnean Society*, *Canadian Journal of Fisheries and Aquatic Sciences*, *Conservation Genetics*, *Ecology*, *Environmental Biology of Fishes*, *ICES Journal of Marine Science*, *Journal of Fish Biology*, *Marine Biology*, *Marine Ecology-Progress Series*, *Molecular Ecology*, *Molecular Ecology Resources*, *North American Journal of Fisheries Management*, *Revista de Biología Marina y Oceanografía*, *Transactions of the American Fisheries Society*, and *Zoological Science*.

Proposals: New York Sea Grant.

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PROFESSIONAL MEMBERSHIP (CURRENT & PAST)

- Canadian Society for Ecology and Evolution
- American Fisheries Society
- American Genetics Association
- American Association for the Advancement of Science
- Hatfield Student Organization of Graduate Assistants (Oregon State University)

SKILLS & OTHER INTERESTS

- Highly motivated, independent thinker with great interpersonal skills
- Excellent organization and management abilities
- Proficient in laboratory and field data collection
- Certification: CPR/first-aid, basic wilderness first-aid
- Fluent in Spanish (native), English (written & spoken) and Portuguese (spoken)
- Hobbies: guitar playing, martial arts, physical conditioning, Chilean folklore

REFERENCES

James E. Seeb
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