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Pew Institute for Ocean Science
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Education

Ph.D. Yale University/American Museum of Natural History, 2000, Ecology & Evolutionary Biology. *Systematics and conservation genetics of sturgeons.*
M.S., M. Phil. Yale University, 1996, Biology
B.S. w/Honors UNC Wilmington, 1994, Biology (summa cum laude), GPA 4.0

Positions Held

Pew Institute for Ocean Science at the University of Miami, NY, 1/04-present, *Research Scientist*

- Science advisor on sturgeon conservation campaign *Caviar Emptor*, providing scientific guidance and representing the campaign at CITES and in media and outreach initiatives.
- Lead scientist and fundraiser for field research program on sturgeons Kazakhstan.

Pew Charitable Trusts, Washington DC, 5/05-10/05, *Consultant*

- Evaluated potential for Trusts investment in program concerning West African fisheries and fishing access agreements. Investigated current international (US, Europe, West Africa) institutional activity, conducted needs assessment, and developed strategies for investment.

Wildlife Conservation Society, Madagascar/NY, 7/01-12/03, *Marine Conservation Scientist*

- Created and managed marine fisheries research and conservation field program in Antongil Bay, Madagascar. Established participatory artisanal fisheries monitoring programs and fisherperson organizations and assisted in set-up of stakeholder forum for industrial/local fishery conflict resolution and evaluation of the effectiveness of coral reef marine protected areas.

NMFS Southwest Fisheries Science Center, CA, 5/02, *ESA Assessment Consultant*

- Performed an evaluation of genetic evidence supporting species status of and ESU presence within the green sturgeon (*Acipenser medirostris*).

American Museum of Natural History, NY, 9/96-5/01, *Research Fellow*

- Conducted doctoral dissertation research using molecular methods to design forensic tools for regulating international caviar trade and study population structure within and phylogenetic relationships among sturgeons and paddlefishes.

Yale University, CT, 9/95-9/96, *Research and Teaching Fellow*

Scripps Institution of Oceanography, CA, 07/94-08/94, *NSF Undergraduate Research Fellow*

Woods Hole Oceanographic Institution, MA, Summer 1993, *NSF Summer Student Fellow*

Field Experience

Belize, Costa Rica, Kazakhstan, Kenya, Madagascar, Romania, São Tomé & Príncipe, South Africa

Teaching, Mentoring, and Service

- Board of Directors for the Marine Section, Society for Conservation Biology, 2006-2008.
- Reviewer for Cladistics, Environmental Conservation, Fish Physiology and Biochemistry, Molecular Phylogenetics & Evolution, Molecular Ecology Notes, and Journal of Heredity.
- Grant reviewer for the BP Conservation Programme (2003-2007) and WWF Kathryn Fuller Fellowship (2007).
- Reviewer of seafood choice card methodology and recommendations (Blue Oceans Institute, Monterey Bay Aquarium).
- Teaching at university (Yale University 1995-1998) and high school level (American Museum of Natural History 1997-1998), MS thesis committees (University of Antananarivo, Madagascar 2001-2005 (V. Ramahery) and The University of Plymouth, Marine Institute, England 2002-2003 (M. Jonahson)), undergraduate student project supervision (American Museum of Natural History 1997, 2002; School for International Training SIT, Madagascar 2001), and advising on a graduate film project (Columbia University Film Division/Alfred P Sloan Foundation 2004: A. Strock "Eggs" a story about caviar).

Grants and Awards

Agip KCO, Two year award, 2006-2008 "*Safeguarding Caspian Sea Sturgeons For The Future In the Ural River*". \$440,000.00

National Geographic Society Conservation Trust Grant, 2005 "*Tracking giants: saving beluga sturgeon on the final frontier, Kazakhstan's Ural River.*" \$15,500.00

Packard Foundation 2-Year Renewal, 2003, "*Caviar Emptor*" (science writer for grant application)

US EPA Science to Achieve Results (STAR) Graduate Fellowship, 1998. 3 year fellowship for supplies (\$5,000.00), full tuition and stipend (\$16,000.00/year).

Yale Institute for Biospheric Studies Scholarship, 1996.

Yale University Fellowship, 1995-1998.

Chancellors Achievement Award for Academic Excellence (UNCW), 1996.

Franklin Allen Scholarship for Outstanding Rising Senior (UNCW), 1993.

Glaxo Young Women in Science Scholar, 1993.

Seaspace Scholarship Recipient, 1993.

Phi Kappa Phi, 1992.

Publications

Birstein VJ, Ruban G, Ludwig A, Doukakis P, DeSalle R. (2005) The enigmatic Caspian Sea Russian sturgeon: how many cryptic forms does it contain? *Systematics & Biodiversity* 3(2): 203-218

Doukakis P, Birstein VJ, DeSalle R. (2005) Intraspecific structure within three caviar-producing sturgeons (*Acipenser gueldenstaedtii*, *A. stellatus*, and *Huso huso*) based on mitochondrial DNA analysis. *Journal of Applied Ichthyology* 21(6): 457-460.

Goldstein P, Wyner W, Doukakis P, Egan MG, Amato G, Rosenbaum H, DeSalle R (2005) Theory and methods for diagnosing species and populations in conservation. *Annals of the Missouri*

- Botanical Garden: Vol. 92, No. 1, pp. 12–27.
- Pikitch E, Doukakis P*, Lauck L, Chakrabarty P, Erickson DL (2005) Sturgeon and paddlefish fisheries of the world: conservation strategies for the future. *Fish and Fisheries* 6: 233-265. *first two authors contributed equally to this work.
- Doukakis P, Pikitch EK, Baimukhanov M, Sissengaliyeva G, Melnikov V, Yerbulekov S, Crownover S (2004) Caviar and Conservation. *Caucasus Environment* 6(1): 21-23.
- Pikitch EK, Doukakis P, Santora C (2004) Caspian sturgeons and captive caviar production: understanding conservation benefits. *Fish Farmer* 27(3): 31-33.
- Pikitch EK, Santora C, Babcock EA, Bakun A, Bonfil R, Conover DO, Dayton P, Doukakis P, Fluharty D, Heneman B, Houde ED, Link J, Livingston PA, Mangel M, McAllister MK, Pope J, Sainsbury KJ (2004) Ecosystem-based fishery management. *Science* 305(5682): 346-347.
- Pikitch EK, Santora C, Babcock EA, Bakun A, Bonfil R, Conover DO, Dayton P, Doukakis P, Fluharty D, Heneman B, Houde ED, Livingston PA, Mangel M, McAllister MK, Pope J, Sainsbury KJ (2004) Letter to the Editor: Response to Fishery Management and Culling. *Science* 306: 1892.
- Birstein VJ, Doukakis P (2002) Molecular identification of sturgeon species: science, bureaucracy, and the impacts of environmental agreements. *Monitoring Migratory Animals, Bonn Convention*: 47-63.
- Birstein VJ, Doukakis P, DeSalle R (2002) Molecular phylogeny of Acipenseridae: non-monophyly of Scaphirhynchinae. *Copeia* 2002(2): 287-301.
- Birstein VJ, Doukakis P, DeSalle R (2002) Letter to the Editor. *Reviews in Fish Biology and Fisheries* 12:107-108.
- Doukakis P (2001) Systematics and Conservation Genetics of Sturgeons (Order Acipenseriformes). Doctoral Dissertation, Yale University, Bell & Howell Company/UMI Dissertation Services, Michigan. 216 pp.
- Doukakis P, Birnbaum KD, Rosenbaum HC (2001) Analyzing data at the population level. Chapter 10, pp 163-172 in DeSalle R, Giribet G, Wheeler W (eds) *Methods and Tools in Biosciences and Medicine: Techniques in Molecular Systematics and Evolution*. Birkhauser, Basel, Switzerland.
- Nishiguchi M, Doukakis P, Egan M, Kizirian D, Phillips A, Prendini L, Rosenbaum HC, Torres E, Wyner Y, DeSalle R, Giribet G (2001) DNA Isolation Procedures. Chapter 12, pp 249-288 in DeSalle R, Giribet G, Wheeler W (eds) *Methods and Tools in Biosciences and Medicine: Techniques in Molecular Systematics and Evolution*. Birkhauser, Basel, Switzerland.
- Doukakis P, Birstein VJ, DeSalle R, Ludwig AN, Ludwig A, Machordom A, Almodovar A, Elvira B (2000) Failure to confirm previous identification of two putative museum specimens of the Atlantic sturgeon, *Acipenser sturio*, as the Adriatic sturgeon, *A. naccarii*. *Marine Biology* 136(2): 373-377.
- Doukakis P, Birstein VJ*, DeSalle R (2000) Polyphyly of mtDNA lineages in the Russian sturgeon, *Acipenser gueldenstaedtii*: forensic and evolutionary implications. *Conservation Genetics* 1(1): 81-88. *Note: first two authors contributed equally to this work.
- Birstein VJ, Doukakis P (2000) Molecular analysis of *Acipenser sturio* L., 1758, and *Acipenser oxyrinchus* Mitchell, 1815: a review. *Boletín Instituto Español de Oceanografía* 16(1-4): 61-73.
- Doukakis P, Birstein VJ, Ruban GI, DeSalle R (1999) Molecular genetic analysis among subspecies of two Eurasian sturgeon species, *A. baerii* and *A. stellatus*. *Molecular Ecology* 8: S117-S127.
- Birstein VJ, Doukakis P, DeSalle R (1999) Molecular phylogeny of Acipenserinae and black caviar species identification. *Proceedings of the 3rd International Symposium on Sturgeon*, Piacenza, Italy, July 8-11, 1997. Vol. 15, no. 4-5, pp. 12-16. *Journal of applied ichthyology/Zeitschrift für angewandte Ichthyologie*. Hamburg, Berlin.
- Birstein VJ, Doukakis P, Sorkin B, DeSalle R (1998) Population aggregation analysis of caviar

producing species of sturgeon and implications for diagnosis of black caviar. *Conservation Biology* 12(4): 766-775.

Accepted

Erickson D, Kappenman K, Webb M, Ryabinin N, Shmigirilov A, Belyae, B, Novomodny G., Mednikova A., Pikitch E, Doukakis P. Development of a research and conservation plan for Kaluga and Amur sturgeons in the Russian Far East (*Endangered Species Bulletin*).

Doukakis P, Jonahson M, Ramahery V, Randriamanantsoa, BJD. Traditional fisheries of Antongil Bay, Madagascar. (*Western Indian Ocean Journal of Marine Science*)

In Review

Birstein VJ, Doukakis P, Hanner R, Ruban GI, Wong E, DeSalle R. A lower limit of DNA Barcoding using Mitochondrial DNA profiles of *Acipenser baerii* (submitted, *Molecular Ecology Notes*).

In Preparation

Doukakis P, Jonahson M, Shivji M. Species composition of a shark-fin fishery in Antongil Bay, Madagascar detailed through field and genetic studies.

Reports

Pikitch EK, Doukakis P (2005) Recommendations for fisheries reform for São Tomé and Príncipe. 2005. Commissioned by The Earth Institute at Columbia University for the São Tomé e Príncipe Advisory Project on Sustainable Development Strategies.

<http://www.earthinstitute.columbia.edu/cgsd/STP/documents/STPFishingReportEnglish.pdf>.

Doukakis P (2004) Report to WCS on fisheries of Antongil Bay, Madagascar, December 2003.

Doukakis P, Pikitch EK, Alpeisov S, Baimukhanov M, Melnikov V, Sissengaliyeva G, Bokova Y, Yerbulekov S (2004). Collaborative research on Ural River sturgeon populations.

Doukakis P (2003) Final report to the Wildlife Conservation Society on Fisheries of Antongil Bay, Madagascar (Madagascar Seascope Program).

Pikitch EK, Doukakis P, Crownover S, Alpeisov S, Baimukhanov M, Sissengaliyeva G (2004) Report on the Project Technical assistance on fish tagging technology to benefit Ural River sturgeon populations.

Presentations (*indicates presenter)

Doukakis P*. *Tracking Sturgeon Biology and the Caviar Trade: Science to Support Conservation*. Invited Seminar, Queens College, New York, November 29, 2006.

Doukakis P*. *Genetics and Stock Structure of Sturgeons*. Workshop to Develop and Implement Research, Education, and Management Plans for the Conservation of Kaluga and Amur Sturgeons in the Russian Far East held by Amur Ecological Foundation, Khabarovsk Branch of Pacific Research Fisheries Center (TINRO-Center), and the Wildlife Conservation Society, Khabarovsk, Russia, August 14-18, 2006.

Doukakis P*. *Collaborative Research and Management of Beluga Sturgeon in the Ural River, Kazakhstan*. Workshop to Develop and Implement Research, Education, and Management Plans for the Conservation of Kaluga and Amur Sturgeons in the Russian Far East held by Amur Ecological Foundation, Khabarovsk Branch of Pacific Research Fisheries Center (TINRO-Center), and the Wildlife Conservation Society, Khabarovsk, Russia, August 14-18, 2006.

Doukakis P*. Career path presentation given to the American Museum of Natural History Lang

- Science Team, New York, NY. August 2, 2006.
- Doukakis P*. *Endangered delicacies: the challenge to conserve sharks and sturgeons*. Eckerd College Sigma Xi Chapter invited speaker, Eckerd College, FL, October 27, 2005.
- Jonahson M, Doukakis P, Randriamanantsoa B, Randriamahazo H, Harding S*. *An assessment of the traditional fishery in Antongil Bay, Madagascar*. 4th WIOMSA Scientific Symposium, Mauritius, August 29- September 3, 2005.
- Pikitch EK, Chapman DD, Babcock E, Shivji MS, Doukakis P*. *Diversity and movement of reef-associated elasmobranchs at a Caribbean oceanic atoll (Glover's reef, Belize): implications for marine reserve design*. Society for Conservation Biology 19th Annual Meeting, Brazil, July 19, 2005.
- Doukakis P*. *Conserving the most valuable fish in the world: what does it take?* Hunter College High School Conservation Biology class seminar, NY, November 8, 2004.
- Doukakis P*, Jonahson M, Randriamanantsoa BJD, Ramahery V, Cooke A. *Approaching marine conservation in Antongil Bay, Madagascar*. Society for Conservation Biology 18th Annual Meeting, New York. August 2, 2004.
- Doukakis P*, Pikitch EK, Crownover S. *Fish Tagging Technology for Sturgeons*. Technical assistance workshop: the use of fish tagging technology to benefit Ural River sturgeon populations. Atryau, Kazakhstan. July 7, 2003
- Doukakis P*. *Wildlife Conservation Society: Marine conservation in Antongil Bay, Madagascar*. New York State Marine Education Association, Southampton College, NY. May 31, 2003.
- Doukakis P*, Jonahson M, Pikitch EK. *Fisheries of Antongil Bay, Madagascar: approaches to marine conservation*. American Society of Ichthyologists and Herpetologists, Mo., July 3-8, 2002.
- Doukakis P*, Jonahson M, Pikitch EK. *Marine conservation efforts in Antongil Bay, northeastern Madagascar: applying a seascapes approach*. Sustaining seascapes: the science and policy of marine resource management. American Museum of Natural History, NY, March 3-8, 2002 (poster).
- Mobley K*, Doukakis P, Jonahson M. *Reef discovery, utilization and conservation in Antongil Bay, Republic of Madagascar*. Benthic Ecology Meetings, NC. March 2002.
- Jonahson M*, Doukakis P, Pikitch EK. *Fisheries in Antongil Bay, Northeastern Madagascar: Towards Integrated Coastal Zone Management*. WIOMSA 2nd Scientific Symposium, Dar es Salaam, Tanzania. October 22-25, 2001.
- Cooke A, Jonahson M*, Doukakis P, Smale M, du Feu T. *Sharks, shark fisheries and shark fin trade in Madagascar - review and analysis, with suggestions for action*. IFAW African Shark Conservation Workshop, Cape Town, South Africa. May 29-June 1, 2001.
- Doukakis P*. *Molecular techniques and conservation: caviar and shark fins*. Genomics Conference for High School Teachers, American Museum of Natural History, NY, 2001.
- Doukakis P*, DeSalle R, Birstein VJ. *Molecular species identification of osetra caviar: sister species & cryptic lineages*. Columbia University Population Biology Lecture Series, NY, 1999.
- Doukakis P*, DeSalle R, Birstein VJ. *Conservation genetics and systematics of sturgeon*. US EPA STAR Graduate Fellowship Conference, Washington, DC. August 1999.
- Doukakis P*, DeSalle R, Birstein VJ. *Conservation genetics of caviar producing sturgeons*. Evolution (ASN, SSB, SSE) Joint Meetings, Madison, WI, 1999.
- Doukakis P*, DeSalle R, Birstein VJ. *Conservation genetics and molecular systematics of sturgeons*. Society for Conservation Biology Meetings, College Park, MD, 1999.
- Doukakis P*. *Systematics and conservation genetics of sturgeons (Order Acipenseriformes)* Yale University Biology Lecture Series, CT, 1999.
- Doukakis P*. *Genetic applications*. Metropolitan Chapter of the Association of Women in Science: Mentoring High School Girls in Science and Math, NY, 1999.

Doukakis P*, DeSalle R, Birstein VJ. *Molecular techniques in the conservation of Acipenseridae*. International Congress of Ecology, Florence, Italy, July 22-28, 1998.

Doukakis P*. *Systematics and conservation genetics of sturgeons (Order Acipenseriformes)*. Metropolitan Association of College and University Biologists, New York, 1998.

Nolan K*, Doukakis P, Birstein VJ, DeSalle R. *Introducing students to conservation genetics using sturgeon caviar*. Association of Biological Laboratory Educators (ABLE), NE, June 1-5, 1999.

Photo Credits

[Network of Conservation Educators and Practitioners \(NCEP\)](#) teaching modules

UN Millennium Project (2005) Environment and Human Well-being: A Practical Strategy.

Summary version of the report of the Task Force on Environmental Sustainability. The Earth Institute at Columbia University, NY.

Wildlife Conservation Society Marine Program Brochure (2002)

Media

Quoted in the Associated Press, Houston Chronicle, Moscow Times, New York Times, Washington Post, and ScienceNews and Science Magazine.

Interviewed for The World, a co-production of the BBC World Service, PRI and WGBH Boston, for the [GeoQuiz program](#) and Bloomberg Radio and for “And So It Flows” a radio show about water, 97.7 WBCR.

Languages

English (fluent), French (proficient), Malagasy (basic), Spanish (basic)

Professional Membership

Society for Conservation Biology (2002-present), INTECOL (2005-present), World Sturgeon Conservation Society (2005-present), AAAS (2006)