

Valentina Di Santo

Department of Zoology, Stockholm University
Svante Arrhenius väg 18B, SE-10691, Stockholm, Sweden
phone: +468164085 (lab), email: valentina.disanto@zoologi.su.se
web: www.valentinadisanto.com

Citizenship: Italy, USA

RESEARCH INTERESTS

Ecological Physiology • Biomechanics • Fish Locomotion • Transgenerational Responses to Climate Change Stressors

EDUCATION

2014	Ph.D. , Biology	Boston University
2009	M.Sc. , Biology	University of West Florida
2005	B.Sc. , Natural Sciences	University of Firenze, Italy

POSITIONS

2019-Present	Assistant Professor	Functional Morphology, Dept. of Zoology, Stockholm University
2014-2019	Postdoctoral Fellow	Dept. of Organismic and Evolutionary Biology, Harvard University
2014	Postdoctoral Teaching Fellow	Summer School, Harvard University & University of Oxford, UK
2006	Visiting Scientist	Centre for Estuarine and Marine Ecology, Netherlands Institute for Ecology, Royal Netherlands Academy of Arts and Sciences
2004	Erasmus–Socrates Fellow	University of Firenze, Italy & University of Évora, Portugal

HONORS & AWARDS

2018	Women Leaders Award “She Made a Difference”	European Women’s Management Development International Network
2014	Director’s Outstanding Teaching Award in the Marine Program	Boston University
2013	Dana Wright Dissertation Fellowship	
2011-2013	Ryan Kelley Memorial Scholarship — 3 awards	
2012	Warren-McLeod Summer Research Fellowship	
2011	Steven Berkeley Marine Conservation Fellowship	
2011	Raney Award – The American Society of Ichthyologists and Herpetologists	
2009	Who’s Who Among Students in American Universities & Colleges	
2007-2008	Graduate Merit Award University of West Florida — 2 awards	
2004	Erasmus-Socrates Fellow European Union Fellowship	
2001-2005	ARDSU Award University of Firenze — full scholarship	

PUBLICATIONS

[†] undergraduate student, [‡] graduate student

- in review **Di Santo V** EcoPhysioMechanics: Energetics and biomechanics of fish locomotion under climate change. *Integrative & Comparative Biology*
- Akanyeti O, **Di Santo V**, Goerig E, Wainwright DK, Liao JC, Castro-Santos T, Lauder GV Fish-inspired segment models for undulatory swimming. *Bioinspiration & Biomimetics*
- published Lauer J, Zhou M, Ye S, Menegas W, Schneider S, Nath T, Mostafizur Rahman M, **Di Santo V**, Soberanes D, Feng G, Murthy VN, Lauder G, Dulac C, Mathis MW, Mathis A 2022 Multi-animal pose estimation, identification, and tracking with DeepLabCut. *Nature Methods* in press
- Vilmar M[†], **Di Santo V** 2022 Swimming performance of sharks and rays under climate change. *Reviews in Fish Biology and Fisheries*, doi: 10.1007/s11160-022-09706-x.
- Di Santo V***, Goerig E*, Wainwright DK, Akanyeti O, Liao JC, Castro-Santos T, Lauder GV 2021 Convergence of undulatory swimming kinematics across a diversity of fishes. *Proceedings of the National Academy of Sciences, USA*, 118 (49): e2113206118. *co-first authorship
- Papastamatiou YP, Iosilevskii G, **Di Santo V**, Huveneers C, Hattab T, Ballesta L, Mourier J 2021 Sharks surf the slope: Current updrafts reduce energy expenditure for aggregating sharks. *Journal of Animal Ecology*, 90: 2302–2314.
- Di Santo V**, O’Boyle LA[‡], Saylor RK[‡], Dabruzzi TF[†], Covell MA[†], Kaack K[†], Scharer R[†], Seger K[†], Favazza N[†], Pomory CM, Bennett WA 2020 Coral loss alters guarding and farming behavior of a Caribbean damselfish. *Marine Biology*, 167: 120.
- Zhu J, White C[‡], Wainwright DW[‡], **Di Santo V**, Lauder GV, Bart-Smith H 2019 Tuna robotics: a high-frequency experimental platform exploring the performance space of swimming fishes. *Science Robotics*, 4, eaax4615.
- O’Connell KA[‡], **Di Santo V**, Maldonado J[†], Molina E[†], Fujita MK 2019 A tale of two skates: Comparative phylogeography of North American skate species with implications for conservation. *Copeia*, 107, 297–304.
- Di Santo V** 2019 Ocean acidification and warming affect skeletal mineralization in a marine fish. *Proceedings of the Royal Society B*, 286, 20182187.
- Zhu R, Wang J, Dong H, Quinn D, Bart-Smith H, **Di Santo V**, Wainwright DW[‡], Lauder GV 2019 Computational study of fish-shaped panel with simultaneously heaving and bending motion. *AIAA Scitech 2019 Forum*. San Diego, California.
- Di Santo V**, Jordan HL, Cooper B[†], Currie RJ, Beitinger TL, Bennett WA. 2018 Thermal tolerance of the invasive red-bellied pacu and the risk of establishment in the United States. *Journal of Thermal Biology*, 74, 110–115.
- Wen L, Ren Z[‡], **Di Santo V**, Kainan H, Tao Y, Wang T, Lauder GV. 2018 Understanding fish linear acceleration using an undulatory bio-robotic model with soft fluidic elastomer actuated morphing median fins. *Soft Robotics*, doi: 10.1089/soro.2017.0085.

- Di Santo V**, Kenaley CP, Lauder GV. 2017 High postural costs and anaerobic metabolism during swimming support the hypothesis of a U-shaped metabolism-speed curve in fishes. *Proceedings of the National Academy of Sciences, USA*, 114, 13048–13053.
- Saadat M, Fish FE, Domel A[‡], **Di Santo V**, Lauder GV, Haj-Hariri H. 2017 On the rules for aquatic locomotion. *Physical Review Fluids*, 2, 083102.
- Di Santo V**, Blevins EL, Lauder GV 2017. Batoid locomotion: effects of speed on pectoral fin deformation in the little skate *Leucoraja erinacea*. *Journal of Experimental Biology*, 220, 705–712.
- Di Santo V**, Lobel PS 2017. Body size and thermal tolerance in tropical gobies. *Journal of Experimental Marine Biology and Ecology*, 487, 11–17.
- Park SJ, Gazzola M, Park C, Park S, **Di Santo V**, Blevins EL, Lind JU, Campbell P, Dauth S, Capulli A, Cho A, Yuan H, Pasqualini FS, Ahn S, Maoz B, Nesmith AP, Vijaykumar R, Choi J-W, Deisseroth K, Lauder GV, Mahadevan L, Parker KK 2016. Phototactic guidance of a tissue-engineered soft-robotic ray. *Science*, 353: 158–162. (COVER)
- Di Santo V** 2016. Intraspecific variation in physiological performance of a benthic elasmobranch challenged by ocean acidification and warming. *Journal of Experimental Biology*, 219: 1725–1733.
- Di Santo V**, Kenaley CP 2016. Skating by: Low energetic costs of swimming in a batoid fish. *Journal of Experimental Biology*, 219: 1804–1807.
- Di Santo V**, Lobel PS 2016. Size affects digestive responses to increasing temperature in fishes: physiological implications of being small under climate change. *Marine Ecology*, 37: 813–820.
- Di Santo V**, Tran AH[†], Svendsen JC 2016. Progressive hypoxia decouples activity and aerobic performance of skate embryos. *Conservation Physiology*, cov067.
- Lauder GV, **Di Santo V** 2015. Swimming mechanics and energetics of elasmobranch fishes. In *Fish Physiology* Vol. 34A, Physiology of Elasmobranch Fishes: Structure and Interaction with Environment. (RE Shadwick, AP Farrell and CJ Brauner, eds.), pp. 219–253. New York: Academic Press.
- Di Santo V** 2015. Ocean acidification exacerbates the impacts of global warming on embryonic little skate, *Leucoraja erinacea* (Mitchill). *Journal of Experimental Marine Biology and Ecology*, 463: 72–78.
- Rossi F, Gribsholt B, Gazeau F, **Di Santo V**, Middelburg JJ 2013. Benthic complex effects of ecosystem engineer loss on ecosystem response to detrital macroalgae. *PLoS ONE*, 8: e66650.
- Di Santo V**, Bennett WA 2011. Effect of rapid temperature change on resting routine metabolic rates of two benthic elasmobranchs. *Fish Physiology and Biochemistry*, 37: 929–934.
- Di Santo V**, Bennett WA 2011. Is post-feeding thermotaxis advantageous in elasmobranch fishes? *Journal of Fish Biology*, 78: 195–207.
- Wells DL[‡], El-Sheikh EM, Sutton MA, **Di Santo V**, Bennett WA 2009. Automated image processing of X-radiographs of digestion in stingrays. *IC-AI*, 2: 715–719.

Di Santo V, Pomory CM, Bennett WA 2009. Algal garden cultivation and guarding behavior of dusky damselfish on coral rubble and intact reef in Dry Tortugas National Park. *Proceedings of the American Academy of Underwater Sciences*, 2009: 222–228.

FUNDING

Total = \$1,721,900

- 2022 **Human Frontier Science Program PI** (*Co-PIs: Neil Shubin, Fumiya Iida*)
The walking fish: Integrating biomechanics, energetics and robotics to study water-land transition (\$1,140,000)
- 2021 **Swedish Research Council PI**
Physiological and biomechanical mechanisms underlying transgenerational responses of schooling fish to ocean acidification (approx. \$470,000)
- 2021 **Bolin Centre for Climate Research PI**
Swimming abilities in larval forage fish under climate change scenarios (approx. \$6,000)
- 2020 **Carl Tryggers Fund PI**
Physiological and biomechanical responses of schooling fish to ocean acidification (approx. \$60,000)
- 2018 **The Company of Biologists Travel Fund**
Travel grant (\$450)
- 2018 **Flying Sharks Fund**
Travel grant (\$400)
- 2015 **The Society for Experimental Biology Travel Grant**
Early career scientist travel grant (\$500)
- 2014 **Flying Sharks Research Fund**
Effect of ocean acidification on fish swimming performance (\$1,000)
- 2014 **George R. Bernard, Jr. Travel Award**
Travel grant (\$400)
- 2012 **American Elasmobranch Society Research Award**
Effect of ocean acidification and warming on embryonic little skates (\$1,000)
- 2011 **Steven Berkeley Marine Conservation Fellowship**
Effect of ocean acidification and warming on little skates (\$10,000)
- 2011 **George R. Bernard, Jr. Travel Award**
Travel grant (\$400)
- 2011 **Raney Award, The American Society of Ichthyologists and Herpetologists**
Ecological physiology responses of the little skate: potential for adaptation in rapid climate change (\$1,000)
- 2010 **Flying Sharks Research Fund**
Ecophysiological responses of the little skate to rapid climate change (\$4,000)
- 2010 **George R. Bernard, Jr. Travel Award**
Travel grant (\$1,000)
- 2009 **Student Government Association Academic Travel Fund**
Travel grant (\$500)
- 2009 **Graduate Students Scholarly and Creative Activity Award**
Travel grant (\$500)
- 2009 **Student Government Association Academic Travel Fund**
Travel grant (\$500)
- 2008 **PADI Project AWARE Foundation Co-PI** (*PI: Wayne Bennett, Co-PI: Anthony DiGirolamo*)

- 2008 Routine metabolic rates of field acclimatized juvenile lemon sharks — *declined* (\$2,500)
Marine Ecology Research Society
 Scientific SCUBA diving grant (\$250)
- 2008 **Student Government Association Academic Travel Fund**
 Travel grant (\$500)
- 2008 **Graduate Student Travel Grant**
 Travel grant (\$500)
- 2008 **Florida Institute of Oceanography Research Grant PI (Co-PI: Wayne Bennett)**
 Dry Tortugas National Park, FL (\$18,000)
- 2007-2008 **Graduate Students Scholarly and Creative Activity Award**
 Study of the effect of post-feeding thermotaxis in benthic elasmobranchs — 2 awards (\$2,000)
- 2007 **Marine Ecology Research Society**
 Travel grant (\$500)

TEACHING EXPERIENCE

UC = undergraduate course, GC = graduate course

- 2021 - **Lecturer | Marine Animal Physiology** *Stockholm University*
 GC, 2 semesters
- 2020 - **Co-Lecturer | Sensory Biology** *Stockholm University*
 GC, 2 semesters
- 2019 - **Co-Lecturer | Diversity and Phylogeny of Organisms** *Stockholm University*
 UC, 5 semesters
- 2018 **Visiting Lecturer | Marine Biodiversity and Conservation** *Emerson College*
 UC, 1 semester
- 2015-2017 **Visiting Lecturer | Climate Change** *Emerson College*
 UC, 3 semesters
- 2014-2017 **Visiting Lecturer | Ecology and Evolution** *Boston College*
 UC, 5 semesters
- 2016 **Visiting Lecturer | Tropical Marine Fisheries** *Boston University*
 UC/GC, Field course at Calabash Caye Field Station, Belize, 1 semester
- 2014 **Postdoctoral Teaching Fellow | Darwin & Contemporary Evolutionary Biology** *Harvard University & University of Oxford, UK*
 UC, Course abroad at the University of Oxford, UK, 1 semester
- 2014 **Visiting Lecturer | Life on Earth** *Emmanuel College*
 UC, 1 semester
- 2014 **Teaching Fellow | Evolutionary Ecology** *Boston University*
 UC, 1 semester
- 2014 **Teaching Fellow | Biology II: Cell and Molecular Biology** *Boston University*
 UC, 1 semester
- 2013 **Teaching Assistant | Patterns and Processes in Fish Diversity** *Harvard University*
 UC, 1 semester
- 2012-2013 **Teaching Fellow | Tropical Marine Invertebrates** *Boston University*
 UC/GC, Field course at Calabash Caye Field Station, Belize, 2 semesters
- 2012-2013 **Teaching Fellow | Coral Reef Dynamics** *Boston University*
 UC/GC, Field course at the Calabash Caye Field Station, Belize, 1 semester
- 2010 **Teaching Fellow | Biology I: Ecology and Evolution** *Boston University*

- UC, 1 semester
- 2009-2011 **Teaching Fellow | Field Biology of Belize Coral Reefs: Expeditionary Ichthyology** *Boston University*
UC/GC, Field course at Wee Wee Caye Field Station, Belize, 3 semesters
- 2009-2011 **Teaching Fellow | Ichthyology** *Boston University*
UC/GC, 3 semesters
- 2009 **Instructor | Marine Ecological Physiology** *University of West Florida*
UC/GC, Online course, 2 semesters
- 2009 **Teaching Assistant | Contemporary Lab Skills** *University of West Florida*
GC, 1 semester
- 2009 **Teaching Assistant | Field Ecology** *University of West Florida*
UC/GC 1 semester
- 2007-2009 **Instructor | Comparative Animal Physiology** *University of West Florida*
UC/GC, 5 semesters
- 2007-2009 **Instructor | General Biology** *University of West Florida*
UC, 5 semesters
- 2008 **Teaching Assistant | Biochemistry: Metabolism** *University of West Florida*
UC, 1 semester
- 2008 **Teaching Assistant | Anatomy and Physiology I** *University of West Florida*
UC, 1 semester
- 2007 **Teaching Assistant | Marine Biology and Oceanography** *University of West Florida*
UC, 1 semester

INVITED SEMINARS

- 2022 **How fishes save energy: Exploring biomechanical and physiological performance of locomotion** Jockey Club College of Veterinary Medicine and Life Sciences — City University of Hong Kong, Hong Kong
- 2021 **How fishes save energy: Exploring biomechanical and physiological performance of locomotion** Department of Biology — Oxford University, UK
- 2021 **How fishes save energy: Exploring biomechanical and physiological performance of locomotion** Department of Biology — California State University, Long Beach, USA
- 2021 **How fishes save energy: Exploring biomechanical and physiological performance of locomotion** Department of Engineering — La Sorbonne University, Paris, France
- 2020 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Biology — University of Glasgow, UK
- 2020 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Biology — University of New Brunswick Saint John, Canada
- 2020 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Biology — Colgate College, USA
- 2020 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Centre for the Advanced Studies of Collective Behaviour — University of Konstanz, Germany
- 2019 **Do the locomotion: Biomechanics and energetics of swimming** Biology Day — Stockholm University, Sweden
- 2019 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Ecology & Evolutionary Biology — University of Connecticut, USA

- 2019 **Climate change and fish locomotion** Marine Environment Research Centre — ENEA, Italy
- 2019 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Evolution, Ecology, and Organismal Biology — University of California, Riverside, USA
- 2019 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Biological Sciences — George Washington University, USA
- 2018 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Zoology — Stockholm University, Sweden
- 2018 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Zoology — University of Cambridge, UK
- 2018 **Climate change and locomotion: New insights into energetics and biomechanics of fishes** Biology Department — University of Massachusetts Lowell, USA
- 2018 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Biology Department — University of Massachusetts Dartmouth, USA
- 2018 **Climate change and locomotion: Insights into energetics and biomechanics of fishes** Department of Biology and Marine Biology — University of North Carolina Wilmington, USA
- 2017 **New insights into metabolism and energetics of fishes** Department of Organismic and Evolutionary Biology — Harvard University, USA
- 2017 **Cartilage mineralization under ocean warming and acidification** Department of Biology — Boston College, USA
- 2016 **Physiological performance of a batoid fish challenged by climate change stressors** La Pontificia Universidad Javeriana, Bogotá, Colombia
- 2016 **Ecological responses of marine organisms to climate change** Biology Department — Boston College, USA
- 2015 **Climate change and the intraspecific variation in physiological performance of a batoid fish** Biology Department — University of Massachusetts Dartmouth, USA
- 2014 **Ecophysiological responses of fishes to increased ocean acidification and warming** Marine Program — Boston University, USA
- 2014 **Ocean acidification exacerbates the effect of warming on little skate embryos** Ecology, Behavior & Evolution — Boston University, USA
- 2013 **Ecological and evolutionary physiology of the environmental stress response in the little skate: potential for adaptation in rapid climate change** Ecology, Behavior & Evolution — Boston University, USA
- 2012 **Role of body size in physiological performance of cleaner gobies challenged by ocean warming** Ecology, Behavior & Evolution — Boston University, USA
- 2009 **Is thermotaxis advantageous in elasmobranchs?** Department of Biology — University of West Florida, USA
- 2008 **Evolutionary physiology of elasmobranch digestion** Department of Biology — University of West Florida, USA
- 2005 **Conservation biology of the lemon shark** Department of Animal Biology and Genetics — University of Firenze, Italy
- 2005 **Movement patterns of juvenile and subadult lemon shark, around Bimini, Bahamas** Department of Animal Biology and Genetics — University of Firenze, Italy

SELECTED CONFERENCE PRESENTATIONS

- 2022 **Di Santo V** Energetics and biomechanics of fish locomotion under climate change. *Society for Integrative & Comparative Biology Annual Meeting, Phoenix, AZ* — *invited speaker*

- 2021 **Di Santo V**, Lauder GV Feeding affects individual and collective behavior of schooling fish. *Society for Integrative & Comparative Biology Annual Meeting, Virtual*
- 2021 Sepúlveda Rodríguez G, Lauder GV, **Di Santo V** Effect of speed on collective behavior in schooling and shoaling fishes. *Society for Integrative & Comparative Biology Annual Meeting, Virtual*
- 2021 Villanueva Sanz I, **Di Santo V** Ontogenetic behavior of a tropical shark under future ocean acidification scenarios. *Society for Integrative & Comparative Biology Annual Meeting, Virtual*
- 2020 Oliveira Santos S, Gomez Valdez A, Morales Lopez O, Cuenca-Jimenez F, **Di Santo V**, Wilhelmus MM Robokrill: understanding vortex generation during drag-based metachronal swimming. *American Physical Society, Virtual*
- 2019 **Di Santo V** Ocean acidification and warming affect skeletal mineralization in a marine fish. *Comparative Cartilage Biology Meeting, Banyuls-sur-Mer, France* — *invited speaker*
- Di Santo V**, Lauder GV Fish schooling: Dynamic shifts in school structure with swimming speed and during feeding. *Society for Integrative & Comparative Biology Annual Meeting, Tampa, FL*
- Zhu JJ, White CH, Wainwright DK, **Di Santo V**, Lauder GV, Bart-Smith H Design and performance of a high speed thunniform swimming platform. *Society for Integrative & Comparative Biology Annual Meeting, Tampa, FL*
- Juarez YS, **Di Santo V**, Wilhelmus MM Robokrill: a metachronal robotic swimmer. *Society for Integrative & Comparative Biology Annual Meeting, Tampa, FL*
- 2018 **Di Santo V** Ocean acidification and warming affect cartilage mineralization in a benthic batoid. *Society for Experimental Biology Annual Meeting, Florence, Italy*
- Di Santo V** Ocean acidification and warming affect cartilage mineralization in Little Skate *Leucoraja erinacea*. *Society for Integrative & Comparative Biology Annual Meeting, San Francisco, CA*
- Lauder GV, Akanyeti O, Castro-Santos T, **Di Santo V**, Dong H, Goerig E, Liao J, Wainwright DK Comparative undulatory kinematics in swimming fishes: quantitative database from a diversity of species. *Society for Integrative & Comparative Biology Annual Meeting, San Francisco, CA*
- 2017 **Di Santo V**, Kenaley CP, Lauder GV A non-linear relationship between swimming metabolism and speed in a negatively buoyant batoid fish. *Society for Integrative & Comparative Biology Annual Meeting, New Orleans, LA*
- Ren Z, **Di Santo V**, Hu K, Yuan T, Lauder GV, Wen L Understanding fish linear acceleration using an undulatory bio-robotic model with soft fluidic elastomer actuated median fins. *Society for Integrative & Comparative Biology Annual Meeting, New Orleans, LA*
- 2016 Gazzola M, Park SJ, Park KS, Park S, **Di Santo V**, Deisseroth K, Lauder GV, Mahadevan L, Parker KK Outsourcing neural active control to passive composite mechanics: a tissue engineered cyborg ray. *American Physical Society, Portland, OR*
- Park SJ, Gazzola M, Park KS, Park S, **Di Santo V**, Deisseroth K, Lauder GV, Mahadevan L, Parker KK Phototactic guidance of a tissue-engineered soft-robotic ray. *American Physical Society, Portland, OR*
- Saadat M, Domel A, **Di Santo V**, Lauder GV, Haj-Hariri H Unifying rules for aquatic locomotion. *American Physical Society, Portland, OR*
- Di Santo V**, Kenaley CP, Lauder GV Batoid locomotion: integrative study of mechanics and energetics in the little skate. *Society for Integrative & Comparative Biology Annual Meeting, Portland, OR*
- 2015 **Di Santo V** Geographic variation in performance curves determines vulnerability to climate change in the little skate. *Society for Experimental Biology Annual Meeting, Prague, Czech Republic*

- 2014 **Di Santo V** Ocean acidification exacerbates the effect of warming on little skate performance. *Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN*
- 2011 **Di Santo V**, Cooper B, Bennett WA Thermal tolerance of the red-bellied pacu in relation to its survival in the United States. *Joint Meeting of Ichthyologists and Herpetologists, Minneapolis, MN*
- 2010 **Di Santo V**, Bennett WA Comparison of farming and guarding behavior of dusky damselfish on coral rubble and intact reef in Dry Tortugas National Park. *Joint Meeting of Ichthyologists and Herpetologists, Providence, RI*
- Di Santo V**, Cooper B, Bennett WA Thermal tolerance of the red-bellied pacu in relation to its survival in the United States. *International Congress on the Biology of Fish, Barcelona, Spain*
- 2009 **Di Santo V**, Bennett WA Effects of thermotaxis on digestion efficiency in two elasmobranchs. *Joint Meeting of Ichthyologists and Herpetologists, Portland, OR*
- Di Santo V**, Bennett WA Temperature effect on resting routine metabolic rates of two benthic elasmobranchs. *Joint Meeting of Ichthyologists and Herpetologists, Portland, OR*
- Wells DL, El-Sheikh EM, Sutton MA, **Di Santo V**, Bennett WA Automated image processing of X-radiographics of digestion in stingrays. *International Conference on Artificial Intelligence, Las Vegas, NV*
- Di Santo V**, Pomory CM, Bennett WA Algal garden cultivation and guarding behavior of dusky damselfish on coral rubble and intact reef in Dry Tortugas National Park. *American Academy of Underwater Sciences Symposium, Atlanta, GA*
- 2008 **Di Santo V**, Bennett WA Is post-feeding thermotaxis advantageous in elasmobranchs? *European Elasmobranch Association Meeting, Lisbon, Portugal*
- 2007 **Di Santo V**, Bennett WA Effects of temperature on elasmobranch fishes: overview and future prospects. *Joint Meeting of Ichthyologists and Herpetologists, St. Louis, MO*

SELECTED FIELD EXPERIENCE

- 2016 **Fieldwork PI** Boston University Marine Program in Belize
- 2009–2014 **Fieldwork Supervisor** Boston University Marine Program in Belize
- 2009 **Lead Scientist** University of West Florida
- 2008 **Lead Scientist** Florida Institute of Oceanography – Research on board of the R/V Bellows in the Dry Tortugas National Park
- 2007 **Scientist** Florida Institute of Oceanography – Research on board of the R/V Bellows in the Dry Tortugas National Park
- 2006 **Scientist** Netherlands Institute for Ecology – Sediment biogeochemistry and mechanical mimics
- 2005 **Research Assistant** Bimini Biological Field Station, Bahamas
- 2004 **Research Assistant** Torre Salsa Natural Park, Sicily, Italy

SERVICE & OUTREACH

- 2020–2021 **Letters to a Pre-Scientist** Pen pal program between students and STEM professionals
- 2019–2020 **Skype-a-Scientist** Skyped in classrooms to talk to students about *being a scientist*
- 2018 **Summer Science Week: Ocean Week** Guest Scientist, Harvard Museum of Natural History
- 2017– **Dissertation External Reviewer** Ian Bouyoucos, James Cook University
- 2017– **Thesis Committee** Erika Fernlund Isaksson, Stockholm University; Fidji Berio, University of Montpellier; Bill Francois, ESPCI Paris; Maria Granell Ruiz, Stockholm University; Evelina Juntorp, Stockholm University; Miriam Staiger, Stockholm University; Charel Reuland, Stockholm University; Zoë Porter, The University of West Florida; Kathleen Donnellan, Boston University
- 2016–2019 **SICB Judges Coordinator** Coordinator of the judges for student presentations in the Division of Comparative Physiology and Biochemistry at the Annual Meeting of the Society for Integrative and Comparative Biology
- 2016 **Workshop: Ecophysiology of Elasmobranchs** Taught a two-day intensive workshop on the ecological physiology of elasmobranch fishes at the Pontificia Universidad Javeriana, Bogotá, Colombia
- 2012–2015 **Summer Pathways Mentor** Science Mentor in the Summer Pathways Program for high school girls in the Boston Area
- 2012 **Committee Member for the Oscar Elton Sette Award** American Fisheries Society
- 2010–2014 **BIOBUGS Mentor** Mentor for high school science education program at Boston University
- 2009 **President** Marine Ecology Research Society — University of West Florida
- 2009– **External Reviewer** Journal of Experimental Biology, Nature, Global Change Biology, Biological Conservation, Environmental Biology of Fishes, Scientific Reports, Journal of Experimental Marine Biology and Ecology, Marine Biology, Marine Ecology, ICES Journal of Marine Science, Royal Society Open Science, Conservation Physiology, Integrative Zoology, Journal of Morphology, Fish and Fisheries, Journal of Fish Biology, Fish Physiology and Biochemistry, Oecologia, Integrative Organismal Biology, Zoomorphology, Journal of Thermal Biology, Diversity, Deep-Sea Research Part I, Science of the Total Environment, Reviews in Fish Biology and Fisheries, Soft Robotics

STUDENTS & POSTDOCTORAL RESEARCHERS

† Undergraduate student, ‡ Master student, *PhD student, #Postdoctoral researcher

Guadalupe Sepúlveda Rodríguez* Stockholm University, **Elizabeth Murphy#** Stockholm University, **Rebecca Bridge†** Bangor University Erasmus Exchange student, **Camille Morerod‡** Stockholm University, **Darby Finnegan‡** Fulbright Scholar, **Klara Freed†** Stockholm University, **Belén Navarro Rivero‡** Stockholm University, **Irene Villanueva Sanz‡** Stockholm University, **Hayley McDermott‡** Stockholm University, **Lova Schildt†** Stockholm University, **Matilda Vilmar†** Stockholm University, **Emmie Fagerberg†** Stockholm University, **Joana Henze†** Stockholm University, **Thao Vu†** Harvard University, **Griffin Andres†** Harvard University, **Sierra Dennehy†** Boston College, **Annika Samuelson†** Boston College, **Anxhela Mile†** Boston College, **Anna Tran†** Boston University, **Trevor Etheridge†** Boston University, **Samantha Gifford†** Boston University, **Anthony Lever†** Boston University, **Rachel Scharer†** University of West Florida.

PRESS & MEDIA

- Interviews **Women in STEM.** The Global Observer (L.V. Natale)
Back Page Photo Series: Reflector: An Interview with Valentina Di Santo. Fisheries 41, 499-500. (N. Sopinka)

The Steven Berkeley Marine Conservation Fellowship Winners: Valentina Di Santo. Fisheries 36, 511.

2008–2013 Steven Berkeley Marine Conservation Fellowship Recipient Updates. Fisheries 39, 605-607. (H. Williams)

Selected Press Harvard Gazette, Nature, Outside JEB, Science Magazine, Outside JEB, BBC News, LA Times, The New York Times, National Geographic, New Scientist, The Wall Street Journal, The Washington Post, The Guardian, Miami Herald