Nicola Simone Smith, Hons. B.Sc., M.Sc., Ph.D.

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Postdoctoral Researcher **Bullitt Environmental Fellow** Department of Biological Sciences Earth to Ocean Research Group Simon Fraser University 8888 University Drive Burnaby, BC, Canada V5A 1S6

INTERESTS

Biological Invasions, Coral Reef Ecology, Data-limited Tropical Fisheries

EDUCATION

2019	Doctor of Philosophy, Biological Sciences, Simon Fraser University, BC,
	Canada, Senior Advisor: Isabelle M. Côté
	Thesis: Conceptual and Applied Approaches to Marine Invasions
2010	Master of Science, Zoology, University of British Columbia, BC, Canada,
	Senior Advisor: Jonathan B. Shurin
	Thesis: Lionfish Invasion in Nearshore Waters of The Bahamas: An
	Examination of the Effects of Artificial Structures and Invader versus
	Native Species Colonization Rates
2006	Bachelor of Science (Honours) with High Distinction, double major in
	Zoology and English, University of Toronto, Trinity College, ON, Canada

GRANTS AND FELLOWSHIPS		
2019	Canadian Society for Ecology and Evolution, Travel Award (CDN \$500)	
2018	Bullitt Environmental Prize, Bullitt Foundation (USD\$100,000)	
2017	Simon Fraser University, Graduate Fellowship (CAD\$6,500)	
2017	Society for Conservation Biology, Latin America and Caribbean Section, Professional Development Scholarship (USD\$2,000)	
2016	The Bahamas Ministry of Education, Graduate Academic Scholarship (USD\$7,500), renewed	
2016	Simon Fraser University, Travel and Minor Research Award, (CAD\$650)	
2015	Organization of American States, Academic Graduate Scholarship (USD\$46,930)	
2015	Canadian Lyford Cay Foundation, Graduate Scholarship (CAD\$10,000), renewed	
2015	The Bahamas Ministry of Education, Graduate Academic Scholarship (USD\$7,500), renewed	
2014	Canadian Lyford Cay Foundation, Graduate Scholarship (CAD\$10,000), renewed	
2014	The Bahamas Ministry of Education, Graduate Academic Scholarship (USD\$7,500), renewed	
2014	Simon Fraser University, Glen Geen Scholarship for Marine Biology, (CAD\$900)	
2013	Simon Fraser University, Provost International Fellowship (CAD\$15,000)	
2013	Canadian Lyford Cay Foundation, Graduate Scholarship (CAD\$10,000)	
2013	The Bahamas Ministry of Education, Graduate Academic Scholarship (USD\$7,500)	
2013	Simon Fraser University, Graduate Entrance Scholarship (CAD\$6,250)	
2009	University of British Columbia, Faculty of Science Graduate Award (CAD\$2,000)	

- 2008 University of British Columbia, Graduate Fellowship (CAD\$8,000)
- 2008 Disney Worldwide Conservation Fund, with Kathleen Sullivan Sealey (USD\$10,000)
- 2007 Disney Worldwide Conservation Fund, with Kathleen Sullivan Sealey (USD\$12,000)

AWARDS

- 2016 Selected by the Royal Society, London, as an "Outstanding PhD Student in Biology" to attend the 2017 Commonwealth Science Conference in Singapore
- 2015 Best Talk, IDEAS (Interdepartmental Ecology of Aquatic Systems) Symposium, Simon Fraser University
- 2010 Best Talk, Zoology Graduate Student Symposium, University of British Columbia
- 2009 Best Talk, Honorable Mention, 30th Pacific Ecology and Evolution Conference
- 2006 Trinity College Scholar for Outstanding Academic Achievement, University of Toronto
- 2006 George Gray Falle Scholarship for High Achievement in English, University of Toronto

RELEVANT EMPLOYMENT

2020-present	Postdoctoral fellow, "Envisioning the past, present and future of the
	sponge fishery of The Bahamas," Simon Fraser University
2019-present	Marine Invasive Species Specialist, "Preventing the Costs of Invasive
	Alien Species in Barbados and the Organization of Eastern Caribbean
	States," Global Environment Facility/United Nations Environment
	Programme (GEF/UNEP) funded project, administered by Centre for
	Agriculture and Biosciences International.
2010-2013	Experiment Coordinator, "The Bahamas Lionfish Control Pilot
	Project," Global Environment Facility/United Nations Environment
	Programme (GEF/UNEP) funded project on "Mitigating the Threats
	of Invasive Alien Species in the Insular Caribbean," administered by the
	Government of The Bahamas, Department of Marine Resources,
	Nassau, The Bahamas.
2007	Research Assistant, Earthwatch Institute, Coastal Ecology of The
	Bahamas project, Great Exuma, The Bahamas.
2006-2007	Research Assistant, The College of The Bahamas, Marine and
	Environmental Studies Institute, Nassau, The Bahamas.
2005	Environmental Officer (paid internship), Government of The Bahamas,
	Bahamas Environment Science and Technology (BEST)
	Commission, Nassau, The Bahamas.

TEACHING

2020-present	Co-supervisor, undergraduate independent research study on the diet of
	Caribbean groupers, Simon Fraser University
2020	Guest Lecture, Invasive species, "Conservation Biology," 3rd year
	undergraduate course, Simon Fraser University, BC, Canada, February
	2020
2019	Guest Lecture, The ecology of fear and biotic resistance, "Introduction to
	Ecology," 2 nd year undergraduate course, Simon Fraser University, BC,
	Canada, October 2019
2018	Teaching Assistant, "General Biology," 1st year undergraduate course,
	Simon Fraser University, Burnaby, BC, Canada

2010	Teaching Assistant , "Principles of Conservation Biology," 4 th year undergraduate course, University of British Columbia, Vancouver, BC, Canada
2009	Guest Lecture , The lionfish invasion in the Caribbean, "Principles of Conservation Biology," 4 th year undergraduate course, University of British Columbia, Vancouver, BC, Canada, 26 th March 2009
2009	Teaching Assistant , "Principles of Conservation Biology," 4 th year undergraduate course, University of British Columbia, Vancouver, BC, Canada
2009	Teaching Assistant , "Fundamentals of Ecology," 3 rd year undergraduate course, University of British Columbia, Vancouver, BC, Canada
2008	Teaching Assistant , "Laboratory Investigations in Life Sciences," 1 st year undergraduate course, University of British Columbia, Vancouver, BC, Canada

PROFESSIONAL SERVICE

2020-present	Associate Editor (Marine Invasions), NeoBiota
2019-2020	Co-organizer, Statistics Graduate Study Group (Stats Beerz), Simon
	Fraser University, Burnaby, BC, Canada
2015-2017	Diversity Committee, Marine Section, Society for Conservation
	Biology
2015-2016	Technical Advisor, Invasive species group, "Conservation Leadership in
	the Caribbean Fellows Programme", Funded by the US Fish & Wildlife
	Service, International Affairs
2010-present	Collaborator, FishBase (Online encyclopedia of fishes,
	www.fishbase.org)

PUBLICATIONS

Peer-reviewed journals

Smith NS and Côté IM. Potential biotic resistance on coral reefs? Direct and indirect effects of native predators on invasive lionfish. *Coral Reefs* (in review)

Smith NS, Côté IM and Shurin JB. Effective marine invaders are slow colonizers of newly created habitat. *Ecology* (In revision)

Freire KMF, Belhabib D, Espedido JC, Hood L, Kleisner KM, Lam VWL, Machado ML, Mendonça JT, Meeuwig JJ, Moro PS, Motta FS, Palomares MLD, **Smith N**, Teh L, Zeller D, Zylich K and Pauly D (2020) Estimating global catches of marine recreational fisheries. *Frontiers in Marine Science* 7:12. doi:10.3389/fmars.2020.00012

Francis FT, Howard BR, Berchtold AE, Branch TA, Chaves LCT, Dunic, JC, Favaro B, Jeffrey KM, Malpica-Cruz L, Maslowski N, Schultz JA, **Smith NS** and Côté IM (2019) Shifting headlines? Trends in sizes of newsworthy fishes. *PeerJ* 7:e6395 doi:10.7717/peerj.6395

Smith NS and Côté IM (2019) Multiple drivers of contrasting diversity-invasibility relationships at fine spatial grains. *Ecology* 100(2): e02573

Côté IM and **Smith NS** (2018) The lionfish invasion: Has the worst-case scenario come to pass? *Journal of Fish Biology* 92:660-689. doi:10.1111/jfb.13544

Smith NS, Côté IM, Martinez-Estevez L, Hind-Ozan E, Quiros A, Johnson N, Green SJ, Cornick L, Shiffman D, Malpica-Cruz L, Gleason Besch A and Shiel-Rolle N (2017) Diversity and inclusion in conservation: a proposal for a marine diversity network. *Frontiers in Marine*

Science 4:234. doi: 10.3389/fmars.2017.00234

Malpica-Cruz L, Haider W, **Smith NS**, Fernández-Lozada S and Côté IM (2017) Heterogeneous attitudes towards lionfish in the Mexican Caribbean: implications for invasive species management. *Frontiers in Marine Science* 4:138. doi: 10.3389/fmars.2017.00138

Smith NS, Green SJ, Akins JL, Miller S and Côté IM (2017) Density-dependent colonization and natural disturbance limit the effectiveness of invasive lionfish culling efforts. *Biological Invasions* 19:2385-2399. doi: 10.1007/s10530-017-1449-6

* Media: Anthropocene Magazine, "The trouble with lionfish control" 28 June 2017

Smith NS and Zeller D (2016) Unreported catch and tourist demand on local fisheries of small island states: the case of The Bahamas, 1950-2010. *Fishery Bulletin* 114:117-131. doi:10.7755FB.114.1.10

- * **Media:** Sport Fishing Magazine, "Bahamas Considers Granting Commercial Fishing Rights to Chinese" 14 Nov 2016
- * **Media:** Inter Press Service (IPS) News Agency, "One Fish, Two Fish, No Fish: Rebuilding of Fish Stocks Urgently Needed" 21 Jan 2016

Hind EJ, Alexander SM, Green SJ, Kritzer JP, Sweet MJ, Johnson AE, Amargós FP, **Smith NS** and Peterson AM (2015) Fostering effective international collaboration for marine science in small island states. *Frontiers in Marine Science* 2:86. doi:10.3389/fmars.2015.00086

Côté IM, Darling ES, Malpica-Cruz L, **Smith NS**, Green SJ, Curtis-Quick J, Layman C (2014) What doesn't kill you makes you wary? Effect of repeated culling on the behaviour of an invasive predator. *PLoS ONE* 9(4): e94248. doi: 10.1371/journal.pone.0094248

Other contributions

Smith NS and Zeller D (2016) Bahamas. In: D. Pauly and D. Zeller (eds) Global Atlas of Marine Fisheries: A Critical Appraisal of Catches and Ecosystem Impacts. Island Press, Washington D.C.

Smith NS and Zeller D (2013) Bahamas reconstruction: fisheries trends in a tourism-driven economy (1950-2010). UBC Fisheries Centre Working Paper #2013-08, Vancouver (Canada). 29 p.

Ramdeen R, Harper S, Frotté L, Lingard S, **Smith N**, Zylich K, Zeller D and Pauly D (2012) Reconstructed total catches by the marine fisheries of small island states in the wider Caribbean (1950-2010) In: Proceedings of the 65th Gulf and Caribbean Fisheries Institute, pp. 69-75.

Smith NS (2011) Lionfish invasion: an opportunity for collaboration, creativity and growth in marine conservation. *Sea Around Us Newsletter*, Jan./Feb. (63): 3-4.

Sullivan Sealy K, Anderson L, Stewart D and **Smith N** (2008) The invasion of Indo-Pacific lionfish in The Bahamas: Challenges for a national response plan. In: *Proceedings of the 61st Gulf and Caribbean Fisheries Institute*, pp. 404-408.

Smith NS and Sullivan Sealey KS (2007) The lionfish invasion in The Bahamas: What do we know and what to do about it? In: *Proceedings of the 60th Gulf and Caribbean Fisheries Institute*, pp. 419-423.

PROFESSIONAL PRESENTATIONS

2020 **Invited speaker**, Bamfield Marine Science Centre, "From managing the lionfish invasion in the Caribbean to diversity in science," Vancouver Island, BC, Canada

- 2020 **Invited speaker**, Bellingham Technical Community College, "Managing the lionfish invasion in the Caribbean," Bellingham, Washington, USA.
- 2019 Western Society of Naturalists, "Biotic resistance through fear of native predators on Caribbean coral reefs," Ensenada, Baja California, Mexico
- 2019 Canadian Society for Ecology and Evolution, "Fear of native predators promotes biotic resistance on Caribbean coral reefs," Fredericton, NB, Canada
- 2019 **Invited speaker**, University of British Columbia, Sea Around Us Initiative 20th Anniversary Symposium, "Reconstructing Bahamas recreational catch: Big fish tales, big tourism, and big impacts," Vancouver, BC, Canada
- 2017 **Invited poster**, Commonwealth Science Conference, "Density-dependent colonization and hurricanes limit the effectiveness of invasive lionfish culling efforts" Singapore
- 2017 Canadian Society for Ecology and Evolution, "The diversity-invasibility relationship: does spatial scale really explain the invasion paradox?" Victoria, BC, Canada
- 2016 4th International Marine Conservation Congress, "To cull or not to cull an invasive predator? It depends . . ." St. John's, NL, Canada.
- 2016 **Speaker and panelist**, 32nd Committee on Fisheries, Food and Agriculture Organization of the United Nations (FAO), Reliable Fishery Statistics and Its Importance for Food Security Assessments side event, "The other half of the story: unreported recreational catch data for The Bahamas," Rome, Italy.
- 2016 13th International Coral Reef Symposium, "To cull or not to cull an invasive predator? It depends . . . " Honolulu, Hawaii, USA.
- 2016 **Invited speaker**, Conservation Leadership in the Caribbean Training Workshop, St. George's University, "Managing the Indo-Pacific lionfish invasion in the region," St. George, Grenada.
- 2015 IDEAS (Interdepartmental Ecology of Aquatic Systems) Symposium, Simon Fraser University, "Meta-analysis of the diversity-invasibility relationship: Does spatial scale really explain the invasion paradox?" Burnaby, BC, Canada.

*Awarded Best Talk

- 2015 Les Ecologistes Seminar, Simon Fraser University, "Non-lethal effects of native predators on invasive lionfish," Burnaby, BC, Canada.
- 2014 95th Western Society of Naturalists Conference, "Meta-analysis of the diversity-invasibility relationship: Does spatial scale really explain the invasion paradox?" Tacoma, WA, USA.
- 2014 Les Ecologistes Seminar, Simon Fraser University, "What's the catch? Linking tourism, big fish tales and unreported fisheries catches in The Bahamas (1950-2010)," Burnaby, BC, Canada.
- 2013 1st Bahamas Natural History Conference, The College of The Bahamas, "The Bahamas lionfish control pilot project: its origin and current status," Nassau, The Bahamas.
- 2013 1st Bahamas Natural History Conference, The College of The Bahamas, Bahamas fisheries catch reconstruction: fisheries trends in a tourism-driven economy (1950-2010)," Nassau, The Bahamas.
- 2013 **Invited speaker**, Insular Caribbean Aquatic Invasive Species Risk Assessment Tool Training Workshop, Discovery Bay Marine Laboratory, University of the West Indies at Mona, "The Bahamas lionfish control pilot project," Discovery Bay, Jamaica.
- 2012 178th American Association for the Advancement of Science Conference, "Domestic supply versus rising demand: fisheries trends in a tourism-driven economy," Vancouver, BC, Canada.

- 2010 63rd Gulf and Caribbean Fisheries Institute Meeting, "Artificial structures facilitate Indo-Pacific lionfish invasion in marginal Atlantic habitats," San Juan, Puerto Rico.
- 2010 Zoology Graduate Student Symposium, University of British Columbia, "Artificial structures facilitate Indo-Pacific lionfish invasion in marginal Atlantic habitats," Vancouver, BC, Canada.

*Awarded Best Talk

- 2009 90th Western Society of Naturalists Conference, "Consequences of coastal habitat modification for marine fish invasion," Seaside, CA, USA.
- 2009 30th Pacific Ecology and Evolution Conference, Bamfield Marine Science, Bamfield Marine Sciences Centre, "Can species traits predict colonization success in Caribbean reef fishes?" Vancouver Island, BC, Canada.
 - *Awarded Best Talk, Honorable Mention

RESEARCH IMPACT

- 2018 Unreported Queen conch catch estimates from Smith and Zeller (2016) were officially requested by The Bahamas National Trust, and are being used to inform a White Paper on National Queen Conch Management Policy, which will be submitted to the Bahamian government
- 2017 Unreported recreational catch estimates from Smith and Zeller (2016) were officially endorsed by the Government of The Bahamas, and submitted by the Bahamian Government to the FAO (retroactively for the years 1950-2015) in order to be incorporated in the FAO Global Fisheries Database
- 2016 Unreported grouper catch estimates from Smith and Zeller (2016) were added to the central database of the IUCN Groupers and Wrasses Specialist Group, and used to aid in the 10-year reassessment of groupers in the Caribbean based on Red List criteria and categories.

WORKSHOPS AND FOCUS GROUPS

- 2019 COMPASS "Advanced science communication workshop", Simon Fraser University, BC, Canada
- 2019 "Instructional skills workshop," Center for Teaching and Learning, Simon Fraser University, BC, Canada
- 2018 "Mental health workshop for graduate students," Dept. of Biological Sciences and Health and Counseling Center (hosts), Simon Fraser University, BC, Canada
- 2018 "Communicating science workshop for graduate students in STEM, Pacific Northwest Region" (ComSciCon-PNW 2018), University of Washington, Seattle, WA, USA
- 2016 "Advanced statistical analyses (GLMMs) in R workshop," Led by Sean Anderson, University of Washington, Simon Fraser University Research Commons (host), BC, Canada
- 2016 "Communicating your science to the public workshop," Led by Lesley Evans Ogden, Freelance science journalist, Earth to Ocean Research Group (host), Simon Fraser University, Burnaby, BC, Canada.
- 2016 **Focus group co-organizer** (with Luli Martinez, UC Santa Cruz), "Diversity and inclusion in conservation and the creation of a marine diversity network," 4th International Marine Conservation Congress, St. John's, NL, Canada.
- 2013 "Insular Caribbean aquatic invasive species risk assessment tool workshop," Coral Reef Alliance (organizer), Montego Bay, Jamaica.
- 2013 "Economic analyses of invasive species in the insular Caribbean workshop," Landcare Research New Zealand (organizer), St. Augustine, Trinidad and Tobago.

- 2008 "Non-native marine fish introductions of South Florida" workshop, NOAA, USGS and REEF (organizers), Marathon, FL, USA.
- 2007 "Mitigating the threats of invasive alien species in the insular Caribbean", workshop, BEST Commission, Ministry of Energy and the Environment (organizer), Nassau, The Bahamas.

OUTREACH IN POPULAR MEDIA

Podcast

2018 Main findings from Smith et al. (2017) study on lionfish culling summarized in 3-minute podcast on "The Marine Ecology Lab" website. Voice: N Smith. https://tmel.wordpress.com/hear-our-papers/

Print

- 2018 Interviewed in "2018 Bullitt Environmental Prize recognizes Bahamian marine biologist," The Nassau Guardian newspaper, 24 September 2018.
- 2017 Smith et al. (2017) study on lionfish culling featured in "The Trouble with Lionfish Control" for Anthropocene Magazine, 28 June 2017.
- 2016 Smith and Zeller (2016) catch reconstruction study highlighted in "Bahamas Considers Granting Commercial Fishing Rights to Chinese" for Sport Fishing Magazine, 14 November 2016.
- 2016 Interviewed in "One Fish Two Fish, No Fish: Rebuilding of Fish Stocks Urgently Needed" for Inter Press Service (IPS) News Agency, 21 January 2016.
- 2013 Featured in "Caretaker for Our Seas, Bridge to the Future, 40 Under 40" for The Bahamas 40th Independence Celebration Supplement, The Tribune newspaper, 9 July 2013.
- 2012 Interviewed in "Expert Title for Lionfish Project Workers," The Tribune newspaper, 23 January 2012.

Public Lecture

- 2019 **Invited speaker**, Beaty Biodiversity Museum, 100th Way Cool Lecture Series, "Scaring the bleep out of invasive lionfish" Vancouver, BC, Canada, 2 June 2019.
- 2019 **Invited speaker**, Nature Vancouver, "The lionfish invasion of the Caribbean" Vancouver, BC, Canada, 10 January 2019.
- 2018 Beaty Biodiversity Museum, 85th Way Cool Lecture Series, "Lionfish are way cool because . . ." Vancouver, BC, Canada, 4 February 2018.

Radio

2018 Interviewed by BBC World Service as part of an episode on managing invasive species around the globe for BBC CrowdScience, Full episode available at https://www.bbc.co.uk/programmes/p04d42rc/episodes/downloads, clip promoted on social media featuring me available at https://www.bbc.co.uk/programmes/p06g95gt

Television

- 2017 Featured, "An Ocean Mystery: The Missing Catch" (fisheries documentary on unreported catch and its implications for global food security, 22 April 2017 television premiere on the Smithsonian Channel), The Khaled bin Sultan Living Oceans Foundation, Annapolis, MD, USA.
 - https://www.livingoceansfoundation.org/outreach/films/an-ocean-mystery/
- 2013 Featured, "Conquerors" (four-part invasive species documentary series), Lionfish segment, ZED production for Arte, Paris, France.

Webinar

- 2020 **Invited speaker**, "Envisioning the past, present and future of the sponge fisheries of The Bahamas," Bahamas Natural History Conference 5 Webinar Series, originally aired 15 July 2020.
- 2015 **Co-presenter**, "How to Improve Marine Conservation Research in Small Island States," Hosted on Open Channels, originally aired 16 Dec. 2015.

JOURNAL AND RESEARCH GRANT REVIEWS

 Biological Conservation; Ecology and Evolution; Ecosphere; Journal of Experimental Marine Biology and Ecology; Latin American Journal of Aquatic Research; Marine Ecology Progress Series; NeoBiota; Oecologia; PLoS ONE; NOAA NMFS Marine Fisheries Initiative grant competition; Regional Studies in Marine Science

OTHER ACTIVITIES

OTTIEN ACTIVIT	iL5
2019	Peer Tutor, Advanced Statistics, Simon Fraser University
2017	Conference Facilitator, Canadian Society for Ecology and Evolution
	Conference, Victoria, BC, Canada
2016	Organizing Committee, Advanced Statistical
	Analyses (GLMMs) in R Workshops, Simon Fraser University
2016	Organizing Committee, Graduate Student Hosted Seminar and
	Workshop, Simon Fraser University
2014-2016	Graduate Student Representative, Departmental Graduate Studies
	Committee, Simon Fraser University
2014	Judge, Greater Vancouver Regional Science Fair
2013-2014	Co-organizer, Les Ecologistes Seminar Series, Simon Fraser
	University
2009-2010	Secretary, Zoology Graduate Student Society, University of British
	Columbia
2009	Ecology Session Chair, Ecology and Evolution Retreat, Simon
	Fraser University, University of British Columbia and University of
	Victoria
2009	Festival Facilitator, FestEvolve, Beaty Biodiversity Museum and
	Research Center, University of British Columbia
2009	Mentor and Science Fair Judge, Let's Talk Science Partnership
	Program, University of British Columbia and Britannia Secondary
	School
2008	Conference Facilitator, Canadian Society for Ecology and Evolution
	Conference, Vancouver, BC, Canada
2004-2005	Gallery Facilitator, Hands-on biodiversity gallery, The Royal Ontario
	Museum, Toronto, ON, Canada

RELEVANT CERTIFICATIONS

2014	PADI Rescue Diver
2014	PADI Emergency Oxygen Provider
2011	REEF Advanced Assessment Team Member, Fish surveys, Tropical Western
	Atlantic
2011	REEF Expert Surveyor (Level 5), Fish identification, Tropical Western Atlantic
2008	Scientific Diver (Level 1), Canadian Association of Underwater Science

PROFESSIONAL SOCIETIES

 American Fisheries Society; Canadian Society for Ecology and Evolution; International Society for Reef Studies; Ecological Society of America; Society for Conservation Biology; Western Society of Naturalists