

# Cassidy C. D'Aloia

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CONTACT INFORMATION	Department of Biology University of Toronto Mississauga Mississauga, ON, L5L 1C6	<i>website:</i> <a href="http://cassidydaloia.com">cassidydaloia.com</a> <i>email:</i> <a href="mailto:cassidy.daloia@utoronto.ca">cassidy.daloia@utoronto.ca</a> <i>phone:</i> 905-828-5360
INTERESTS	Field biology; seascape genetics; connectivity; marine biology; conservation biology	
EDUCATION	<b>Boston University</b> , PhD in Biology, 2015 <b>Middlebury College</b> , BA in Biology, 2010 <i>summa cum laude</i>	
ACADEMIC APPOINTMENTS	<b>University of Toronto Mississauga</b> , Assistant Professor Department of Biology <i>Dates:</i> 2022 – present <b>University of New Brunswick - Saint John</b> , Assistant Professor Department of Biological Sciences <i>Dates:</i> 2019 – 2021 <b>University of Toronto</b> , Postdoctoral Fellow Department of Ecology & Evolutionary Biology <i>Dates:</i> 2015 – 2016; 2018 <b>Woods Hole Oceanographic Institution</b> , Postdoctoral Scholar Biology Department <i>Dates:</i> 2016 – 2018	
AFFILIATIONS	<b>University of New Brunswick</b> , Adjunct Professor	
FELLOWSHIPS, AWARDS & HONORS	2023 – Connaught New Researcher Award, University of Toronto 2021 – Departmental Award for Teaching Excellence, University of New Brunswick 2019 – Harrison McCain Young Scholar Award, University of New Brunswick 2016 – Belamarich Award for Outstanding PhD in Biology, Boston University 2016 – Postdoctoral Scholar Award, Woods Hole Oceanographic Institution 2016 – Peter Buck Postdoctoral Fellowship, Smithsonian Institution, <i>declined offer</i> 2014 – College of Arts & Sciences Outstanding Teaching Award, Boston University 2012 – Visiting Fellowship in Ecology & Evolutionary Biology, Cornell University 2011 – National Science Foundation Graduate Research Fellowship 2011 – Clare Boothe Luce Foundation Graduate Fellowship, <i>declined offer</i> 2010 – Dean's Fellowship, Boston University 2010 – Phi Beta Kappa, Middlebury College 2010 – Janet C. Curry Award in Biological Sciences, Middlebury College	

‡ Undergraduate co-author; † Graduate student co-author

MANUSCRIPTS

27. Naaykens TM<sup>‡</sup>, Fahim H<sup>†</sup>, **D'Aloia CC** (2024) [Sponge species identity and morphology shape occupancy patterns of a Caribbean sponge-dwelling goby \(\*Elacatinus horsti\*\)](#). *Environmental Biology of Fishes* 107: 799–812
26. Harvey E, Marleau J, Gounand, I, Leroux S, Firkowski CR, Altermatt F, Guillaume Blanchet FG, Cazelles C, Chu C, **D'Aloia CC**, Gravel D, Guichard F, McCann K, Ruppert JLW, Ward C, Fortin M-J. (2023) [A general meta-ecosystem model to predict ecosystem functions at landscape extents](#). *Ecography* 2023: e06790
25. Andreello M, Manel S, Vilcot M<sup>†</sup>, Xuereb A, **D'Aloia CC** (2023). [Benefits of genetic data for spatial conservation planning in coastal habitats](#). *Cambridge Prisms: Coastal Futures* 1: e28.
24. Scavo Lord K, Lesneski K, Buston PM, Davies SW, **D'Aloia CC**, Finnerty JR (2023) [Rampant parthenogenesis and limited larval dispersal in a mangrove population of the coral \*Porites divaricata\*](#). *Proceedings of the Royal Society Series B* 290: 20231070.
23. Sturch WH<sup>†</sup>, **D'Aloia CC** (2023) [Hierarchical genetic structure of the waved whelk \(\*Buccinum undatum\*\) throughout the western North Atlantic](#). *Canadian Journal of Fisheries & Aquatic Sciences* 80: 261–272.
22. Francis RK<sup>†</sup>, Catalano K<sup>†</sup>, Majoris JE, Rueger T, **D'Aloia CC**, Bogdanowicz SM, Buston PM (2022) [Characteristics of breeding habitat, genetic mating system, and determinants of male mating success in the sponge-dwelling goby \*Elacatinus lori\*](#). *Behavioral Ecology and Sociobiology* 76: 157.
21. Naaykens TM<sup>†</sup>, **D'Aloia CC**. (2022) [Isolation-by-distance and genetic parentage analysis provide similar larval dispersal estimates](#). *Molecular Ecology* 31: 3072–3082.
20. Andreello M, **D'Aloia CC**, Dalongeville A, Escalante-Sanchez M-A, Guerrero J, Perrier C, Torres-Florez JP, Xuereb A, Manel S (2022) [Evolving spatial conservation prioritization with intraspecific genetic data](#). *Trends in Ecology & Evolution* 37: 554–564.
19. **D'Aloia CC**, Bogdanowicz SM, Andrés JA, Buston PM (2022) [Population assignment tests uncover rare long-distance marine larval dispersal events](#). *Ecology* 103: e03559.
18. Xuereb A, **D'Aloia CC**, Andreello M, Bernatchez L, Fortin M-J (2021) [Incorporating putatively neutral and adaptive genomic data into marine conservation planning](#). *Conservation Biology* 35: 909–920.
17. **D'Aloia CC**\*, Andrés JA\*, Bogdanowicz SM\*, McCune AR, Harrison RG, Buston PM (2020) [Unraveling hierarchical genetic structure in a marine metapopulation: a comparison of three high-throughput genotyping approaches](#). *Molecular Ecology* 29: 2189–2203. \*Co-first authorship
16. Lesneski K,<sup>†</sup> **D'Aloia CC**, Fortin M-J, Buston PM (2019) [Disentangling the spatial distributions of a sponge-dwelling fish and its host sponge](#). *Marine Biology* 166: 66.
15. **D'Aloia CC**\*, Naujokaitis-Lewis I\*, Blackford CB<sup>†</sup>, Chu C, Curtis JMR, Darling ES, Guichard F, Leroux S, Martensen A, Rayfield B, Sunday JM, Xuereb A<sup>†</sup>, Fortin M-J (2019) [Coupled networks of permanent protected areas and dynamic conservation areas for biodiversity conservation under climate change](#). *Frontiers in Ecology &*

*Evolution* 7: 27. \*Co-first authorship

14. Shaw AK, **D'Aloia CC**, Buston PM (2019) [The evolution of marine larval dispersal kernels in spatially structured habitats: analytical models, individual-based simulations, and comparisons with empirical estimates](#). *The American Naturalist* 193: 424–435.
13. **D'Aloia CC**, Xuereb A<sup>†</sup>, Fortin M-J, Bogdanowicz SM, Buston PM (2018) [Limited dispersal explains the spatial distribution of siblings in a reef fish population](#). *Marine Ecology Progress Series* 607: 143–154.
12. **D'Aloia CC**, Neubert MG (2018) [The formation of marine kin structure: effects of dispersal, larval cohesion, and variable reproductive success](#). *Ecology* 99: 2374–2384.
11. Majoris JE, **D'Aloia CC**, Francis RK<sup>‡</sup>, Buston PM (2018) [Differential persistence favors habitat preferences that determine the distribution of a reef fish](#). *Behavioral Ecology* 29: 429–439.
10. **D'Aloia CC**, Daigle RM, Côté IM, Curtis JMR, Guichard F, Fortin M-J (2017) [A multiple-species framework for integrating movement processes across life stages into the design of marine protected areas](#). *Biological Conservation* 216: 93–100.
9. **D'Aloia CC**, Bogdanowicz SM, Harrison RG, Buston PM (2017) [Cryptic genetic diversity and spatial patterns of admixture within Belizean marine reserves](#). *Conservation Genetics* 18: 211–223.
8. Schmiede PFP<sup>‡</sup>, **D'Aloia CC**, Buston PM (2017) [Anemonefish personalities influence interspecific interactions with host sea anemones](#). *Marine Biology* 164: 24.
7. Selkoe KA\*, **D'Aloia CC\***, Crandall ED, Iacchei M, Liggins L, Puritz JB, von der Heyden S, Toonen RJ (2016) [A decade of seascape genetics: contributions to basic and applied marine connectivity](#). *Marine Ecology Progress Series* 554: 1–19. (Feature Article) \*Co-first authorship
6. **D'Aloia CC**, Bogdanowicz SM, Francis RK<sup>‡</sup>, Majoris JE, Harrison RG, Buston PM (2015) [Patterns, causes, and consequences of marine larval dispersal](#). *Proceedings of the National Academy of Sciences, USA* 112: 13940–13945.
5. **D'Aloia CC**, Azodi CB<sup>‡</sup>, Sheldon SP, Trombulak SC, Ardren WR (2015) [Genetic models reveal historical patterns of sea lamprey population fluctuations within Lake Champlain](#). *PeerJ* 3: e1369.
4. **D'Aloia CC**, Bogdanowicz SM, Harrison RG, Buston PM (2014) [Seascape continuity plays an important role in determining patterns of spatial genetic structure in a coral reef fish](#). *Molecular Ecology* 23: 2902–2913. (Cover photo)
3. Buston PM, **D'Aloia CC** (2013) [Marine Ecology: Reaping the benefits of local dispersal](#). *Current Biology* 23: R351–R353.
2. **D'Aloia CC**, Bogdanowicz SM, Majoris JE, Harrison RG, Buston PM (2013) [Self-recruitment in a Caribbean reef fish: a method for approximating dispersal kernels accounting for seascape](#). *Molecular Ecology* 22: 2563–2572.
1. **D'Aloia CC**, Majoris JE, Buston PM (2011) [Predictors of the distribution and abundance of a tube sponge and its resident goby](#). *Coral Reefs* 30: 777–786.

BOOK CHAPTERS	1. Xuereb A, <b>D'Aloia CC</b> , Daigle RM, Andrello M, Dalongeville A, Manel S, Mouillot D, Guichard F, Côté IM, Curtis JMR, Bernatchez L, Fortin M-J (2019) Marine conservation and marine protected areas. In: <i>Population Genomics: Marine Organisms</i> (ed. MF Oleksiak, O Rajora, pp. 423-446). Springer, Cham.
MANUSCRIPTS IN REVIEW	1. Fahim H <sup>†</sup> , Naaykens T <sup>†</sup> , <b>D'Aloia CC</b> (revisions resubmitted) Habitat quality affects the abundance of a coral-dwelling fish. <i>Ecology and Evolution</i> .  2. Babaei S <sup>†</sup> , Varkey D, Adamack AT, LeBlanc NM, Puncher GN, Parent GJ, Wang Y, Rowe S, <b>D'Aloia CC*</b> , Pavey SA* (in review) Determining population structure of Atlantic cod ( <i>Gadus morhua</i> ) found along the south coast of Newfoundland, Canada using next-generation sequencing. <i>PLOS One</i> . *Co-senior authorship
TEACHING EXPERIENCE	<b>Conservation Biology</b> (UTM), Instructor, Fall 2023 - 2024 <b>Movement Ecology</b> (UTM), Instructor, Fall 2022, Summer 2023 <b>Introduction to Marine Science</b> (UNBSJ), Instructor, Winter 2019 - 2021 <b>Movement Ecology</b> (UNBSJ), Instructor, Winter 2020 <b>Evolution</b> (UNBSJ), Instructor, Winter 2021 <b>Functional Ecology of Coastal Fishes</b> (UNBSJ), Instructor, Fall 2020 - 2021
FUNDING	2023 – Connaught New Researcher Award (\$20,000) 2023 – UTM Research & Scholarship Activities Fund (\$10,000) 2022 – DFO Sustainable Fisheries Science Fund (\$102,469) 2021 – DFO Competitive Science Research Fund (\$289,800) w/ Varkey & Pavey 2020 – NSERC Discovery Grant (\$165,000 + \$12,500 supplement) 2020 – New Brunswick Innovation Foundation COVID Emergency Fund (\$18,000) 2019 – CFI John R. Evans Leaders Fund (\$150,000) w/ Speers-Roesch & Crémazy 2019 – NBIF CFI Matching Funds (\$150,000) w/ Speers-Roesch & Crémazy 2019 – Harrison McCain Foundation Young Scholar Award (\$20,000) 2019 – University of New Brunswick University Research Fund (\$7,000) 2019 – New Brunswick Innovation Foundation Talent Recruitment Fund (\$50,000) 2016 – WHOI Postdoctoral Scholar Award (\$93,000) 2016 – Smithsonian Peter Buck Postdoctoral Fellowship (\$103,922), <i>declined</i> 2016 – Canadian Institute of Ecology & Evolution Working Group (\$11,500) 2014 – Boston University GWISE Professional Development Grant (\$500) 2014 – Volkswagen Foundation Travel Award in Landscape Genetics (\$650) 2013 – Women Diver's Hall of Fame Advanced Dive Training Grant (\$500) 2011 – NSF Graduate Research Fellowship (\$94,000 + tuition) 2011 – Clare Boothe Luce Foundation Fellowship (\$42,600 + tuition), <i>declined</i>

2010 – Dean’s Graduate Fellowship, Boston University (\$19,600 + tuition)  
 2011 – Warren McLeod Summer Fellowship (\$9,400)  
 2011 – IDEA WILD Conservation Research Grant (\$425)  
 2009 – Lake Champlain Research Consortium Student Research Grant (\$2,500)  
 2009 – Middlebury College Senior Work Fund (\$350)

INVITED SEMINARS    2024 – Western University Centre for Animals on the Move Seminar | London, ON  
 2021 – University of Toronto Mississauga Biology Seminar | Mississauga, ON  
 2021 – University of Toronto St. George EEB Seminar | Toronto, ON  
 2020 – St. Francis Xavier University Biology Department Seminar | Antigonish, NS  
 2020 – UNB Fredericton Biology Department Seminar | Fredericton, NB  
 2019 – Lehigh University Biological Sciences Seminar | Bethlehem, PA  
 2018 – UNB Saint John Biological Sciences Seminar | Saint John, NB  
 2017 – Bucknell University Biology Department Seminar | Lewisburg, PA  
 2017 – Northeastern University Marine Science Center Seminar | Nahant, MA  
 2017 – Woods Hole Oceanographic Institution Biology Seminar | Falmouth, MA  
 2016 – Bridgewater State University Biology Seminar | Bridgewater, MA  
 2016 – University of Guelph Integrative Biology Seminar | Guelph, ON  
 2015 – Fisheries & Oceans Canada Pacific Biological Station Seminar | Nanaimo, BC  
 2015 – Simon Fraser University Earth to Ocean Seminar | Burnaby, BC  
 2015 – University of Toronto St. George EEB Seminar | Toronto, ON  
 2015 – University of Toronto Scarborough Biology Seminar | Scarborough, ON  
 2014 – Woods Hole Oceanographic Institution Biology Seminar | Falmouth, MA

CONFERENCE  
 PRESENTATIONS    2024 – 3rd Joint Congress on Evolutionary Biology | Montreal, QC  
 2023 – Society of Canadian Aquatic Sciences | Montreal, QC  
 2022 – ESA/CSEE Joint Meeting | Montreal, QC  
 2021 – Ecological Society of America Annual Meeting | Remote Mtg  
 2021 – International Coral Reef Symposium | Remote Mtg  
 2020 – International Association of Landscape Ecology | Remote Mtg (*invited*)  
 2019 – Canadian Society for Ecology & Evolution Meeting | Fredericton, NB  
 2018 – Canadian Society for Ecology & Evolution Meeting | Guelph, ON  
 2018 – North American Congress for Conservation Biology | Toronto, ON (*invited*)  
 2017 – International Larval Biology Symposium | Honolulu, HI (*invited plenary*)  
 2016 – International Marine Conservation Congress | St. John’s, NL

2016 – International Coral Reef Symposium | Honolulu, HI  
 2015 – Larval Fish Conference Annual Meeting | Vienna, Austria (*invited*)  
 2015 – International Association of Landscape Ecology | Portland, OR (*invited*)  
 2014 – Ecological Society of America Annual Meeting | Sacramento, CA  
 2014 – Landscape Genetics Symposium | Göttingen, Germany  
 2010 – Lake Champlain Research Consortium Student Symposium | Plattsburgh, NY  
 2010 – Lake Champlain Fisheries Technical Committee | Grand Isle, VT

#### SERVICE

##### **At University of Toronto:**

2023 - 2025 – EEB Graduate Admissions Committee  
 2023 - 2025 – UTM Biology Executive Committee  
 2022 - 2023 – Invertebrate Systematist Faculty Search Committee  
 2022 - 2023 – UTM EEB Journal Club Coordinator  
 2022 - present – University of Toronto Dive Safety Committee

##### **At University of New Brunswick:**

2021 – UNB Bi-Campus Internal Research Awards Committee  
 2020 - 2021 – UNBSJ Dept. Biological Sciences Level I Assessment Committee  
 2020 - 2021 – UNBSJ Dept. Biological Sciences Seminar Series Coordinator  
 2019 - 2021 – UNB Bi-Campus Sustainability Advisory Committee  
 2019 - 2021 – UNBSJ Dept. Biological Sciences Applied Ecology Committee

#### MENTORING & SUPERVISION

##### **Graduate Students – Supervision:**

###### *PhD Students*

2024 - present – Galento Galvez (University of Toronto)  
 Awards: *Connaught International Scholarship*  
 2022 - present – Taylor Naaykens (University of Toronto)  
 Awards: *Ontario Graduate Scholarship; FAS Doctoral Recruitment Award; QEII-GSST; NSERC Doctoral*  
 2022 - present – Lydia White (UNB Saint John), co-supervised w/ R. Rochette  
 Awards: *Vaughan Graduate Fellowship in Marine Science; NSERC CGS-D*

###### *MSc Students*

2024 - present – Krystyn Forbes (University of Toronto), co-supervised w/ K. Layton  
 2022 - 2024 – Jonathan Kubelka (University of Toronto)  
 Awards: *Ontario Graduate Scholarship; NSERC CGS-M*  
 2022 - 2023 – Hana Fahim (University of Toronto)  
 Awards: *NSERC CGS-M; Milne Research Award*

2022 - 2024 – Sarah Babaei (UNB Saint John), co-supervised w/ S. Pavey  
Awards: *NBIF Stem Award*

2020 - 2022 – Taylor Naaykens (UNB Saint John)  
Awards: *Vaughan Graduate Fellowship in Marine Science (x2)*

2020 - 2022 – William Sturch (UNB Saint John)  
Awards: *Vaughan Graduate Fellowship in Marine Science (x2)*

### **Graduate Students – Committee Member & Examiner:**

#### *PhD Students*

2023 - present – Laini Taylor (University of Toronto)

2022 - present – Mariana Rivera Higuera (University of Texas at Austin)

2020 - present – Jagger Watters-Gray (UNB Saint John)

2019 - 2022 – Quinn Carvey (UNB Saint John)

2015 - 2021 – Karina Scavo (Boston University)

#### *MSc Students*

2021 - 2022 – Delphine Mossman (UNB Saint John)

2020 - 2023 – Ella Middleton (UNB Saint John)

2020 - 2022 – Sang-Ho Yoo (UNB Saint John)

2020 - 2021 – Tabatha Cormier (UNB Saint John)

2019 - 2023 – Kaela Middleton (UNB Saint John)

2019 - 2020 – Ty Gormley (UNB Saint John)

#### *Examining Committees*

2024 - Sophie Breitbart (PhD Defense, University of Toronto)

2024 - David Murray-Stoker (PhD Defense, University of Toronto)

2024 - Mariana Rivera Higuera (PhD Qualifying Exam, University of Texas Austin)

2023 - Viplav Agarwal (PhD Appraisal Exam, University of Toronto)

2023 - Ariel Greiner (PhD Defense, University of Toronto)

2023 - Jaime Grimm (PhD Appraisal Exam, University of Toronto)

2022 - Avery Schwartz (MSc Defense, University of Toronto)

2022 - Leila Forsyth (PhD Defense, University of Toronto)

2022 - Gudjon Sigurdsson (PhD Defense, UNB Saint John)

2022 - Jagger Watters-Gray (PhD Proposal Exam, UNB Saint John)

2021 - Quinn Carvey (PhD Proposal Exam, UNB Saint John)

### **Undergraduate Honours Students:**

2024 - 2025 – Fabiha Bushra (UTM BIO481)  
2023 - 2024 – Shala Manivannan (UTM BIO481)  
2021 - 2022 – Emilie Diesbourg (UNB Saint John), co-supervised w/ K. Samways

**Undergraduate Research Students (*external funding as noted*):**

2024 – Ana Carolina Borbolla García (UTM ROP Student)  
2024 – Fabiha Bushra (NSERC USRA)  
2024 – Basma Alkhateeb (UTM ROP Student)  
2024 – Oliver Du (UTM ROP Student)  
2023-4 – Celia Ngounou Djomeni (UTM Work Study)  
2023 – Hira Zahid (UTM ROP Student)  
2023 – Rana Fineman (UTM ROP Student)  
2023 – Shala Manivannan (UTM Work Study)  
2022-3 – Renee Patungan (UTM ROP Student)  
2021 – Marijune Tiamzon (UNB Saint John) | *Canada Summer Jobs*  
2021 – Naysa Francis (UNB Saint John)  
2020 – 2021 Samantha Vieira (UNB Saint John) | *Canada Summer Jobs; NBIF*  
2020 – 2021 Emilie Diesbourg (UNB Saint John) | *NSERC USRA x2*  
2019 – Jillian Beals (UNB Saint John) | *Canada Summer Jobs*

REVIEWING &  
EDITING

**Grant Reviews:**

Since 2016 I have reviewed 4 major grants for the following agencies:  
NSERC, US National Science Foundation (Biological Oceanography), BioDivERsA

**Journal Reviews:**

Since 2014 I have reviewed 56 manuscripts for the following journals:  
American Naturalist, Axios Review, Biology Letters, Conservation Letters, Conservation Genetics, Coral Reefs, Ecology, Ecology & Evolution, Diversity & Distributions, ICES Journal of Marine Science, Limnology & Oceanography, Journal of Great Lakes Research, Marine Ecology, Marine Ecology Progress Series, Marine Policy, Methods in Ecology & Evolution, Molecular Ecology, Oikos, PeerJ, PLOS One, Proceedings Royal Society Series B, Trans. American Fisheries Society

**Editorial Duties:**

Guest Editor (2022-2022) for *Biological Conservation* special issue 'Leveraging genetics for spatial conservation planning.' Handled 8 submissions.