

# Dr. Jeff C. Clements, PhD

## Aquatic Science Biologist II

Fisheries and Oceans Canada, Gulf Fisheries Centre  
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## Education

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- 2016      **Ph.D. – University of New Brunswick Saint John**  
Department of Biological Sciences  
Thesis title: “Influence of sediment acidification on burrowing behaviour, post-settlement dispersal, and recruitment of juvenile soft-shell clams (*Mya arenaria*)”  
Supervisor: Dr. Heather L. Hunt
- 2011      **B.Sc. (honours) – Cape Breton University**  
Department of Biology  
Thesis title: “Feeding Ecology of the Northern Moonshell (*Euspira heros*) (Gastropoda: Naticidae) in Cape Breton, Nova Scotia”  
Supervisor: Dr. Timothy A. Rawlings

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## Professional appointments

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- 2023 – present      **Adjunct Professor**  
University of New Brunswick, Saint John  
*June 2023 – present*
- 2022 – present      **Aquatic Science Biologist II (permanent)**  
Fisheries and Oceans Canada, Gulf Region  
*May 2022 – present*
- 2019 – 2022      **Research Scientist (NRC postdoc)**  
Fisheries and Oceans Canada, Gulf Region  
*November 2019 – May 2022*
- 2018 – 2019      **Marie Skłodowska-Curie Postdoctoral Fellow**  
Norwegian University of Science and Technology  
*August 2018 – November 2019*
- 2017 – 2018      **NSERC Visiting Postdoctoral Fellow**  
Fisheries and Oceans Canada, Gulf Region  
*June 2017 – June 2018*
- 2016 – 2017      **Postdoctoral Fellow**  
Atlantic Veterinary College, University of Prince Edward Island  
*October 2016 – June 2017*
- Aquatic Science Biologist (contract)**  
Fisheries and Oceans Canada, Gulf Region  
*June 2016 – October 2016*

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## Research grants

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**9 grants awarded** as lead- or co-PI over 6 years, totaling **CA\$1,070,380**

- 2022            **NSERC Alliance**  
CAD \$397,000  
Alkalinity addition to coastal waters in conjunction with green hydrogen generation: Chemical and biological impacts and verification of CO<sub>2</sub> uptake  
Co-PI with D. Wallace, R. Musgrave, H. MacIntyre, A. Dickson, U. Riebesell, F. Melzner, L. Comeau, A. Mallet, R. Filgueira, G. Rau
- 2021            **Fisheries and Oceans Canada ACRDP**  
CAD \$233,280  
Overwintering survival in juvenile oysters: Understanding the role of energetic physiology for *Crassostrea virginica* seed  
Lead-PI with L. Comeau, C. Carver, R. Tremblay, M. Mallet, A. Mallet
- Fisheries and Oceans Canada ACRDP**  
CAD \$30,080  
Cultivated oysters as sentinels of water quality: An autonomous alert system  
Co-PI with L. Comeau [lead], L. Lanteigne, J. Babarro, R. Filgueira, R. Haché, M. Coffin, L. Poirier
- 2020            **Fisheries and Oceans Canada FSCP**  
CAD \$45,000  
Desilting wild Eastern oyster (*Crassostrea virginica*) beds: effects on recruitment  
Co-PI with L. Poirier [lead], R. Sonier, J. Davidson, M. Coffin, J. Gunn-McQuillan, L. Comeau
- 2018            **University of Gothenburg KVA**  
CAD \$10,000  
Transgenerational effects of global change on marine invertebrates  
Lead PI with F. Jutfelt, S. Dupont
- European Marine Biological Resource Centre ASSEMBLE+**  
CAD \$10,000  
Transgenerational effects of global change on marine invertebrates  
Lead PI with F. Jutfelt, S. Dupont
- 2017            **Fisheries and Oceans Canada ASEC**  
CAD \$100,000  
Interactions between oyster farming and the productivity of wild oyster beds  
Co-PI with L. Comeau [lead], J. Davidson, J. Davidson, M. Ouelette
- Fisheries and Oceans Canada ACRDP**  
CAD \$229,020  
Oyster aquaculture in an acidifying ocean: Effects of ocean acidification on Eastern Oysters (*Crassostrea virginica*) and the mitigation potential of seagrass (*Zostera marina*)  
Lead PI with L. Comeau, C. Carver, E. Mayrand, S. Plante, A. Mallet
- 2016            **Fisheries and Oceans Canada ACCASP**  
CAD \$16,000  
Oysters on the edge: ocean acidification effects on adult eastern oyster behaviour in the context of coastal variability  
Co-PI with L. Comeau [lead], J. Davidson, J. Davidson, M. Ouelette

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## Scholarships and fellowships

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- 2017      **Marie Skłodowska-Curie Individual Postdoctoral Fellowship**  
Norwegian University of Science and Technology  
CAD \$276,358 for 2 years
- 2016      **NSERC Visiting Postdoctoral Fellowship**  
Fisheries and Oceans Canada  
CAD \$151,509 for 3 years
- Marguerite & Murray Vaughan Scholarship**  
University of New Brunswick Saint John  
CAD \$18,000 accrued over for 4 years
- 2015      **NBIF Scholarship**  
University of New Brunswick Saint John  
CAD \$6,000 for 1 year
- 2006      **Cape Breton University Entrance Scholarship**  
Cape Breton University  
CAD \$2,000
- Royal Canadian Legion National Scholarship**  
Cape Breton University  
CAD \$1,000
- Jason Simmons Memorial Scholarship**  
Cape Breton University  
CAD \$500
- McDonald's Scholarship**  
Cape Breton University  
CAD \$500

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## Awards

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- 2015      **Thurlow C. Nelson Award**  
National Shellfisheries Association (NSA) Meeting  
Monterey, CA, USA
- 2014      **Best Oral Presentation Award**  
Atlantic Canada Coastal and Estuarine Science Society Meeting  
Halifax, NS, Canada
- Runner-up Poster Presentation Award**  
Atlantic Canada Coastal and Estuarine Science Society Meeting  
Halifax, NS, Canada
- 2012      **Best Oral Presentation Award**  
Atlantic Canada Coastal and Estuarine Science Society Meeting  
Halifax, NS, Canada
- 2011      **Cape Breton University Book Award**  
Cape Breton University  
Sydney, NS, Canada

### Best Oral Presentation Award

Cape Breton University Student Undergraduate Research Forum  
Sydney, NS, Canada

### NSERC Student Undergraduate Best Oral Presentation Award

Atlantic Undergraduate Biology Conference  
Halifax, NS, Canada

2010

### Best Oral Presentation Award

Cape Breton University Student Undergraduate Research Forum  
Sydney, NS, Canada

2006

### Dr. Donald Ferguson Memorial Award

Glace Bay High School  
Glace Bay, NS, Canada

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## Publications

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60 papers in 37 journals; 1 book chapter; 4 in review/revision

Google Scholar citations = 1307 | h-index = 19 | i10-index = 34

\* Undergraduate advisee † Graduate advisee

2023

61. **Ledoux T†**, Clements JC, Maillet M, Gallant D, Sonier R, Miron G. Reproductive ecology of the soft-shell clam (*Mya arenaria*) in Kouchibouguac National Park, New Brunswick, Canada: Assessing size-at-maturity and spawning time to inform fisheries management. *Fish. Res.* 65: 106759.

60. **Ledoux T†**, Clements JC, Gallant D, Sonier R, Miron G. Burrowing behaviour of soft-shell clams (*Mya arenaria*) following recreational fishing. *J. Exp. Mar. Biol. Ecol.* 565: 151916.

59. **Ledoux T**, Clements JC, Comeau LA, Cervello G, Tremblay R, Olivier F, Chauvaud L, Bernier RY, Lamarre S. Effects of anthropogenic sounds on the behavior and physiology of the Eastern oyster (*Crassostrea virginica*). *Front. Mar. Sci.* 10: 1104526.

58. Clements JC, Sundin J, Clark TD, Jutfelt F. Extreme original data yield extreme decline effects. *PLOS Biol.* 21: e3001996.

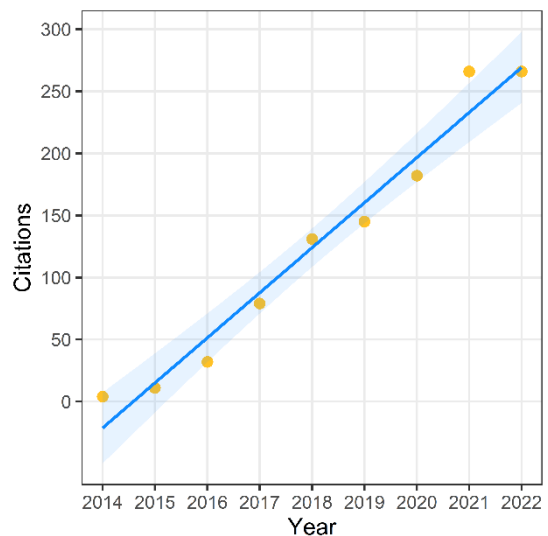
57. Clements JC, Hunt HL. Chapter 13: Effects of ocean warming and acidification on soft-shell clams. In: The soft-shell clam *Mya arenaria*: biology, fisheries, and mariculture (V. Kennedy, B. Beal, eds.), *American Fisheries Society*. In press.

2022

56. **Durier G†**, Nadalini J-B, Comeau L, Starr M, Michaud S, Tran D, St-Louis R, Babarro J, Clements JC, Tremblay R. Use of valvometry as an alert tool to signal the presence of toxic algae *Alexandrium catenella* by *Mytilus edulis*. *Front. Mar. Sci.* 9:987872.

55. Clements JC, George MN. Ocean acidification and bivalve byssus: explaining variable responses using meta-analysis. *Mar. Ecol. Prog. Ser.* 694 89-103.

54. Deb S, Guyondet T, Coffin MRS, Barrell J, Comeau LA, Clements JC. Effect of inlet morphodynamics on estuarine circulation and implications for sustainable oyster aquaculture. *Estuar. Coast. Shelf Sci.* 269: 107816.



53. Clements JC, Clark TC, Sundin J, Jutfelt F. Meta-analysis reveals an extreme “decline effect” in the impacts of ocean acidification on fish behaviour. *PLoS Biol.* 20: e3001511.
52. Roche D, Raby GD, Norin T, Ern R, Scheuffle H, Skeeles M, Morgan R, Andreassen AH, Clements JC, Jutfelt F, Clark TD, Binning SA. Paths towards a greater consensus building in experimental biology. *J. Exp. Biol.* 225: jeb243559
- 2021 51. Poirier LA, Clements JC, Millar RB, Sonier R, Niles M. Size selectivity of the scallop fishery in the southern Gulf of St. Lawrence: effects of ring size and washer type. *Fish. Res.* 243: 106103.
50. Poirier LA, Clements JC, Coffin MRS, Craig T, Davidson J, Miron G, Davidson JDP, Hill J, Comeau LA. Siltation negatively affects settlement and gaping behaviour in eastern oysters. *Mar. Environ. Res.* 170: 105432.
49. Coffin MRS, Clements JC, Comeau LA, Guyondet T, Maillet M, Steeves L, Winterburn K, Babarro JMF, Mallet MA, Haché R, Deb S, Filgueira R. The killer within: Endogenous bacteria accelerate oyster mortality during sustained anoxia. *Limnol. Oceanogr.* 66: 2885-2900.
48. Clements JC, Dupont S, Jutfelt F. “Urchin pinning”: behavioural observations reveal how hungry urchins actively prey upon their sea star predators. *Ethology* 127: 484-489.
47. Clements JC, Leblanc A, Coomber C, Comeau L. Comparative evidence for harvesting-driven enhancement of clam beds in northeastern New Brunswick, Canada. *Reg. Stud. Mar. Sci.* 43: 101690.
46. Clements JC, Ramesh K, Nysveen J, Dupont S, Jutfelt F. Seawater temperature, but not pH, affects startle response behaviour in a wide-ranging marine bivalve. *Anim. Behav.* 173: 191-205.
45. Gerwing TG, Gerwing AMA, Avery-Gomm S, Choi C-Y, Clements JC, Rash J.A Re-evaluation of solutions to the problem of unprofessionalism in peer review. *Res. Integr. Peer Rev.* 6: 4.
44. Lowes H\*, Snihur K, Alessi D, Clements JC, Blewett T. Group versus individual exposure: Do methodological decisions in aquatic toxicology alter experimental results? *Sci. Tot. Environ.* 764: 144288.
- 2020 43. Gerwing TG, Davies M, Clements JC, Flores A-M, Thomson H, Nelson K, Kushneryk K, Brouard-John E, Harvey B, Plate E. Do you want to breach an embankment? Synthesis of the literature and practical considerations for breaching of tidally influenced causeways and dikes. *Estuar. Coast. Shelf Sci.* 245: 107024
42. Clements JC. Don't be a prig in peer review. *Nature* 585: 472
41. Clements JC. Is the reproducibility crisis fuelling poor mental health in science? *Nature* 582: 300
40. Clements JC, Poirier LA, Perez FF, Comeau LA, Babarro J. Behavioural responses to predators in Mediterranean mussels (*Mytilus galloprovincialis*) are unaffected by elevated pCO<sub>2</sub>. *Mar. Environ. Res.* 161: 105148
39. Gerwing TG, Gerwing AMA, Avery-Gomm S, Choi C-Y, Clements JC, Rash J.A Quantifying professionalism in peer review. *Res. Integr. Peer Rev.* 5: 9
38. Clements JC, Carver CE, Mallet M, Comeau LA, Mallet AL. Low pH influences eastern oyster reproductive development and larval survival but with no transgenerational linkages. *ICES J. Mar. Sci.* fsaa089
37. Poirier L, Clements JC, Sonier R, Lanteigne L, Nadeau A, Comeau L. Testing the efficacy of a novel technique for enhancing shell strength and thickness in on-bottom cultured Eastern oysters (*Crassostrea virginica*). *Aquacult. Eng.* 90: 102101
36. Clements JC, Daigle R, Froehlich H. Low citation rates are not sufficient to conclude no harm from predatory journals. *Science* (eLetter)  
<https://science.sciencemag.org/content/367/6474/129/tab-e-letters>
35. Clements JC, Schagerström E, Dupont S, Jutfelt F, Ramesh K. Roll, right, repeat: short-term repeatability in the self-righting behaviour of a cold-water sea cucumber. *J. Mar. Biol. Assoc. UK.* 100: 115-120

- 2019
34. Clements JC, Comeau LA. Behavioural defenses of shellfish prey under ocean acidification. *J. Shellfish Res.* 38: 725-742
33. Clements JC, Comeau LA. Use of an emerging technology to detect ocean acidification effects on shellfish behaviour. *J. Shellfish Res.* 38: 811-818
32. Gu H, Shang Y, Clements JC, Dupont S, Wang T, Wei S, Wang X, Chan J, Huang W, Hu M, Wang Y. Hypoxia aggravates the effects of ocean acidification on the physiological energetics of the blue mussel *Mytilus edulis*. *Mar. Poll. Bull.* 149: 110538
31. Carroll J, Clements JC. Scaredy-oysters: in situ documentation of an oyster behavioral response to predators. *Southeast. Nat.* 18: N21-N26
30. Klompmaker AA, Kelley PH, Chattopadhyay D, Clements JC, Huntley JW, Kowalewski M. Predation in the marine fossil record: studies, data, recognition, environmental factors, and behavior. *Earth Sci. Rev.* 194: 472-520.
29. Kong H, Clements JC, Dupont S, Wang T, Huang, X, Shang Y, Liu L, Huang W, Hu M, Wang Y. Seawater acidification and temperature modulate anti-predator defenses in two co-existing *Mytilus* species. *Mar. Poll. Bull.* 145: 118-125
28. Kong H, Jiang X, Clements JC, Wang T, Huang X, Shang Y, Chen J, Hu M, Wang Y. 2019. Transgenerational effects of short-term exposure to acidification and hypoxia on early developmental traits of the mussel *Mytilus edulis*. *Mar. Environ. Res.* 145: 73-80
27. Clements JC, Comeau, LA. Nitrogen removal potential of shellfish aquaculture harvests in eastern Canada: a comparison of culture methods. *Aquac. Rep.* 13: 100183.
26. Poirier L, Clements JC, Davidson JDP, Miron G, Davidson J, Comeau L. Sink before you settle: settlement behaviour of Eastern oyster (*Crassostrea virginica*) larvae on artificial spat collectors and natural substrate. *Aquacult. Rep.* 13: 100181
- 2018
25. Clements JC, Coffin MRS, Lavaud R, Guyonnet T, Comeau LA. Ocean acidification and molluscan shell taphonomy: can elevated seawater  $p\text{CO}_2$  influence taphonomy in a naticid predator-prey system? *Paleogeogr, Paleoclimatol, Paleoecol.* 507: 145-154
24. Clements JC, Darrow ES. Eating in an acidifying ocean: a quantitative review of elevated  $\text{CO}_2$  effects on the feeding rates of calcifying marine invertebrates. *Hydrobiologia.* 820:1-21
23. Clements JC, Comeau LA, Carver CE, Mayrand E, Plante S, Mallet A. Short-term exposure to elevated  $p\text{CO}_2$  does not affect the valve gaping response of adult eastern oysters, *Crassostrea virginica*, to acute heat shock under an *ad libitum* feeding regime. *J. Exp. Mar. Biol. Ecol.* 506: 9-17
22. Clements JC, Davidson JDP, Gunn McQuillan J, Comeau LA. Increased mortality of harvested eastern oysters (*Crassostrea virginica*) is associated with air exposure and temperature during a spring fishery in Atlantic Canada. *Fish. Res.* 206: 27-34
21. Clements JC, Daigle RM, Froehlich HE. Predator in the pool? A quantitative evaluation of non-indexed open access journals in aquaculture research. *Front. Mar. Sci.* 5: 106
20. Clements JC, Bourque D, McLaughlin J, Stephenson M, Comeau L. Wanted dead or alive: *Polydora websteri* recruit on both live oysters and empty shells of the eastern oyster, *Crassostrea virginica*. *J. Fish. Diseases.* 41: 855-858
19. Clements JC, Hicks C, Tremblay R, Comeau LA. Elevated seawater temperature, not  $\text{CO}_2$  negatively affects post-spawning mussels (*Mytilus edulis*) under food limitation. *Con. Physiol.* 6: cox078
18. Clements JC, Hunt HL. Testing for sediment acidification effects on within-season variability in juvenile soft-shell clam (*Mya arenaria*) abundance on the northern shore of the Bay of Fundy. *Estuar. Coasts* 41: 471-183
- 2017
17. Clements JC, Bishop MM\*, Hunt HL. Elevated temperature has adverse effects on GABA-mediated adaptive behaviour to sediment acidification in a wide-ranging marine bivalve. *Mar. Biol.* 164: 56
16. Clements JC, Hunt HL. Effects of  $\text{CO}_2$ -driven sediment acidification on infaunal marine bivalves: a synthesis. *Mar. Poll. Bull.* 117: 6-16
15. Clements JC, Bourque D, McLaughlin J, Stephenson M, Comeau L. Extreme Ocean acidification reduces the susceptibility of eastern oyster shells to a polydorid parasite. *J. Fish Diseases.* 40: 1573-1585

14. Clements JC, Bourque D, McLaughlin J, Stephenson M, Comeau L. Siltation increases the susceptibility of surface-cultured eastern oysters (*Crassostrea virginica*) to parasitism by the mudworm *Polydora websteri*. *Aquacult. Res.* 48: 4707-4717
13. Clements JC, McCorquodale DB, Doucet BA, Ogden JB. The Dusky Cockroach in the Canadian Maritimes: establishment, persistence, and ecology. *J. Acad. Entomol. Soc.* 13: 21-27
12. Ferguson LF, Davidson JDP, Landry T, Clements JC, Therriault TW. *Didemnum vexillum*: Invasion potential via harvesting and processing of the Pacific oyster (*Crassostrea gigas*) in British Columbia, Canada. *Manag. Biol. Invasion.* 8: 553-558
11. Clements JC. Open access articles receive more citations in hybrid marine ecology journals. *FACETS.* 2: 1-14
- 2016
10. Clements JC, Woodard KW\*, Hunt HL. Porewater acidification alters the burrowing behaviour and post-settlement dispersal of juvenile soft-shell clams (*Mya arenaria*). *J. Exp. Mar. Biol. Ecol.* 447: 103-111
9. Clements JC, Chopin T. Ocean acidification and marine aquaculture in North America: potential impacts and mitigation strategies. *Rev. Aquacult.* 9: 326-341
- 2015
8. Clements JC, Hunt HL. Marine animal behavior in a high-CO<sub>2</sub> ocean. *Mar. Ecol. Prog. Ser.* 536: 259-279
7. Clements JC. Using Facebook to enhance independent student engagement: a case study with first-year undergraduates. *Higher Educ. Stud.* 5: 131-146
- 2014
6. Clements JC, Rawlings TA. Ontogenetic shifts in the predatory habits of the northern moon snail (*Lunatia heros*) on the northwestern Atlantic coast. *J. Shellfish Res.* 33: 755-768
5. Ghasemi F, Clements JC, Taheri M, Rostami A. Changes in quantitative distribution of Caspian Sea polychaetes: prolific fauna formed by non-indigenous species. *J. Great Lakes Res.* 40: 692-698
4. Clements JC, Hunt HL. Influence of sediment acidification and water flow on sediment acceptance and dispersal of juvenile soft-shell clams (*Mya arenaria* L.). *J. Exp. Mar. Biol. Ecol.* 453:62-69
- 2013
3. Clements JC, Ellsworth-Power M, Rawlings T. Diet breadth of the northern moon snail (*Lunatia heros*) on the northwestern Atlantic coast. *Am. Mal. Bull.* 31: 331-336
2. Clements JC, Doucet DA, McCorquodale DB. Establishment of a European cockroach, *Ectobius lapponicus* (L.) (Dictyoptera: Blattellidae), in the Maritime Provinces of eastern Canada. *J. Acad. Entomol. Soc.* 9: 4-7
- 2012
1. Clements JC. First record of the Fiery Skipper, *Hylephila phyleus* Drury (Lepidoptera: Hesperidae) from New Brunswick, Canada. *J. Acad. Entomol. Soc.* 8: 55-60

## In review

1. Clark TD, Clements JC, Jutfelt F, Sundin J. Chapter 5: Ocean Acidification. *In: Behavioural Responses to a Changing World* (B Wong, U Candolin, eds.). Oxford University Press. **In revision.**
2. Comeau LA, Guyondet T, Drolet D, Sonier R, Clements JC, Tremblay R, Filgueira R. Revisiting ecological carrying capacity indices for bivalve culture. *Aquaculture*. **In review.**
3. Cooke SJC, Birnie-Gauvin K, Madliger C, Suski CD, Eliason E, Jefferies K, Clements JC, Lennox R. The toolbox for mechanistic understanding of conservation problems facing marine wildlife. *In: Marine Biology in the Anthropocene* (book). **In review.**
4. Durier G†, Comeau L, Babarro J, Starr M, Clements JC, Tremblay R. Impact of the toxic dinoflagellate *Alexandrium catenella* on the valve behaviour of blue mussels (*Mytilus edulis*): A comparison between two populations with contrasting histories of PST exposure. *Aquaculture*. **In review.**

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## Government / industry reports and online publications

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- 2023 13. Barrell J, Arsenault T, Clements JC, Coffin MRS, Comeau S, Dickson E, Ditlecadet D, Guyondet T, Knysh K, Mills C, Moriyasu M, Niles M, Ouellette M, Rolland N, Roy M, Sonier R. Spatial overlap and likely effects of shellfish aquaculture on eelgrass (*Zostera marina*) in the southern Gulf of St. Lawrence. *Canadian Science Advisory Science Response*. In press.
- 2021 12. Coffin MRS, Poirier LA, Clements JC, Dickson E, Guyondet T, van den Heuvel MR. Dissolved oxygen as a Marine Environmental Quality (MEQ) measure in upper estuaries of the southern Gulf of St. Lawrence: Implications for nutrient management and eelgrass (*Zostera marina*) coverage. *Canadian Science Advisory Secretariat Research Document*. [https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2021/2021\\_056-eng.html](https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ResDocs-DocRech/2021/2021_056-eng.html)
- 2020 11. Clements JC. Don't let big names and impressive stories influence your peer review. *Nature Index* <https://go.nature.com/2RnByKV>
- 2018 10. Clements JC, Faille G, Gregory R, Joseph V, Kenchington E, Krumhansel K, Longtin C, Maillet M, Wareham-Hayes VE, Wong M. Habitat, coastal, and significant benthic areas. In: Bernier RY, Jamieson RE, Moore AM (eds.) Proceedings of the State of the Ocean: Atlantic - Synthesis Workshop. *Canadian Technical Report of Fisheries and Aquatic Science* 3167. <https://www.dfo-mpo.gc.ca/oceans/publications/soto-rceo/2018/atlantic-synthesis-atlantique-synthese/index-eng.html>  
9. Clements JC, Bourque D, Stephenson M, Comeau LA. Understanding the distribution of a nemertean predator, *Cerabratulus lacteus*, in clam flats: implications for control measures. *Fisheries and Oceans Canada ACRDP Final Report*, Project #G-14-01-001  
8. Clements JC. Reader beware of predatory scientific aquaculture literature. *Global Aquaculture Alliance*. <https://www.aquaculturealliance.org/advocate/reader-beware-of-predatory-scientific-aquaculture-literature/>  
7. Clements JC. Born to be wild? Fisheries and Oceans Canada – Atlantic Science Enterprise Centre Blog. <http://www.dfo-mpo.gc.ca/science/sec-ces/atlantic-atlantique/blog/2018-02-18/index-eng.html>
- 2017 6. Clements JC, Rabaiotti D. Surviving the question period. *ASBMB Today*. 16:30-31  
5. Clements JC, LeBlanc A, Comeau LA. Fisheries and Oceans Canada ACRDP Final Report. The effects of a hydraulic dredge and adding shells on the environment and soft-shell clam population dynamics. *Fisheries and Oceans Canada ACRDP Final Report*, Project #15-2-G-02  
4. Clements JC, Bourque D, Stephenson M, Comeau LA. Investigating *Polydora* outbreak in New Brunswick off bottom cultured oysters. *Fisheries and Oceans Canada ACRDP Final Report*, Project #G-14-01-002  
3. Clements JC. Conflict of Pinterest: Is social media a conflict of interest source in academic peer review? *The CSP Blog*. <http://blog.cdnsiencepub.com/conflict-of-pinterest-is-social-media-a-conflict-of-interest-source-in-academic-peer-review/>  
2. Clements JC. Open up! On the benefits of open access publishing. *The CSP Blog*. <http://blog.cdnsiencepub.com/open-up-on-the-benefits-of-open-access-publishing/>
- 2015 1. Clements JC. Using social media as a classroom learning platform. *UNBSJ Teaching Matters Newsletter*. Spring 2015:11-12



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## Conference presentations

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\* Award-winning

† Cancelled due to COVID-19

- 2023
28. Clements JC, Poirier LA, Davidson J, Bernard T, Coffin MRS. Assessing the effectiveness of concrete blocks as artificial oyster habitat for restoration in a shallow PEI bay. Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. Shippagan, NB
27. Clements JC, Daigle R, Froehlich H. Predator in the pool? Do predatory publishers pose a threat to aquaculture research?. Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. Shippagan, NB
26. Clements JC, George MN. Ocean acidification and bivalve byssus: explaining variable responses using meta-analysis. 115<sup>th</sup> Annual Meeting of the National Shellfisheries Association. Baltimore, MD
25. Clements JC, Ramesh K, Nysveen J, Dupont S, Jutfelt F, Hicks C, Tremblay R, Comeau L. Mussels in hot water: the behavioural ecology of temperate mussels under ocean warming and acidification. 115<sup>th</sup> Annual Meeting of the National Shellfisheries Association. Baltimore, MD
24. Clements JC, Ramesh K, Nysveen J, Dupont S, Jutfelt F, Hicks C, Tremblay R, Comeau L. Mussels in hot water: the behavioural ecology of temperate mussels under ocean warming and acidification. Joint Meeting of Atlantic Canada Coastal and Estuarine Science Society and the Bay of Fundy Ecosystem Partnership. Truro, NS
- 2020
- †23. Clements JC, Carver C, Mallet M, Comeau L, Mallet AL. Intergenerational effects of low pH exposure on eastern oysters (*Crassostrea virginica*) in the context of an Atlantic Canadian hatchery. Joint Meeting of Aquaculture Canada and the World Aquaculture Society. St. John's, NL
- †22. Clements JC, Hicks C, Tremblay R, Comeau LA. Mussels in hot water: elevated seawater temperature but not  $p\text{CO}_2$  negatively affects adult mussels. Joint Meeting of Aquaculture Canada and the World Aquaculture Society. St. John's, NL
- 2019
21. Clements JC, Sundin J, Clark TD, Jutfelt J. The decline effect in ocean acidification ecology. Society for Experimental Biology (SEB). Seville, Spain
- 2018
20. Clements JC. Behavioural ecology in a naturally-acidic environment: the curious case of the soft-shell clam. NTNU Physiology Lunch. Trondheim, NO
19. Clements JC, Sundin J, Clark TD, Jutfelt F. Does ocean acidification really affect fish behaviour? CBD Blue Lunch Series. Trondheim, NO
- 2017
18. Clements JC, McCorquodale DB, Doucet BA, Ogden JB. The Dusky Cockroach in the Canadian Maritimes: establishment, persistence, and ecology. Meeting of the Acadian Entomological Society. Charlottetown, PEI
17. Clements JC, Comeau LA, Carver CE, Mayrand E, Plante S, Mallet AL. Oysters on the edge: ocean acidification effects on adult eastern oyster behaviour in the context of coastal variability. Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. Montreal, QC
- 2016
16. Clements JC. Benthic behavior in a high  $\text{CO}_2$  world. St. Andrews Biological Station Benthic Workshop. St Andrews, NB
- 2015
15. Clements JC, Hunt HH. Clams on acid: experimental effects of sediment acidification and elevated temperature on juvenile soft-shell clam burrowing. Coastal and Estuarine Research Federation Biennial Meeting. Portland, OR
14. Clements JC, Hunt HH. Impacts of porewater acidification on recruitment and size of juvenile soft-shell clams in the Bay of Fundy. Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. St. Andrews, NB
- \*13. Clements JC, Woodard KW, Hunt HH. Clams on acid: experimental effects of sediment acidification on burrowing behaviour and dispersal of juvenile soft-shell clams. 107th National Shellfisheries Association meeting. Monterey, CA

- 2014 12. Clements JC, Hunt HH. Clams on acid: experimental effects of sediment acidification on burrowing behaviour and dispersal of juvenile soft-shell clams (*Mya arenaria*). St. Andrews Biological Station Benthic Workshop. St Andrews, NB  
 \*11. Clements JC, Hunt HH. Commercial gelatin as a tool for carbonate geochemistry stabilization in marine soft sediments and its application for benthic ecology. Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. Halifax, NS  
 \*10. Clements JC, Hunt HH. Clams on acid: experimental effects of sediment acidification on burrowing behaviour and dispersal of juvenile soft-shell clams (*Mya arenaria*). Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. Halifax, NS  
 9. Clements JC, Hunt HH. Clams on acid: experimental effects of sediment acidification on burrowing behaviour and dispersal of juvenile soft-shell clams (*Mya arenaria*). UNB Graduate Research Conference. Fredericton, NB
- 2013 8. Clements JC, Hunt HH. Influence of sedimentary aragonite saturation state ( $\Omega_{\text{aragonite}}$ ) on sediment acceptance and dispersal of juvenile soft-shell clams (*Mya arenaria* L.). Coastal and Estuarine Research Federation Biennial Meeting. San Diego, CA  
 7. Clements JC, Hunt HH. Influence of surface-sediment pH and  $\Omega_{\text{aragonite}}$  on sediment acceptance and dispersal of juvenile soft-shell clams (*Mya arenaria*). Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. Lawrencetown, NS  
 6. Clements JC, Hunt HH. Influence of surface-sediment pH and  $\Omega_{\text{aragonite}}$  on sediment acceptance and dispersal of juvenile soft-shell clams (*Mya arenaria*). UNB Graduate Research Conference. Fredericton, NB
- 2012 \*5. Clements JC, Hunt HH. Influence of surface sediment pH and carbonate saturation state on soft-shell clam (*Mya arenaria*) recruitment in the Bay of Fundy. Meeting of the Atlantic Canadian Coastal and Estuarine Science Society. Halifax, NS
- 2011 \*4. Clements JC, Rawlings TA. Feeding ecology of the northern moonshell (*Euspira heros*) (Gastropoda: Naticidae) in Cape Breton, Nova Scotia. CBU Student Undergraduate Research Forum. Sydney, NS  
 \*3. Clements JC, Rawlings TA. Feeding ecology of the northern moonshell (*Euspira heros*) (Gastropoda: Naticidae) in Cape Breton, Nova Scotia. Atlantic Undergraduate Biology conference. Halifax, NS
- 2009 \*1. Clements JC, Bouman OT. Whole-plant plasticity of balsam fir and paper birch on extreme sites in eastern Cape Breton. CBU Student Undergraduate Research Forum. Sydney, NS

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## Invited talks

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\* Virtual

† Cancelled due to COVID-19

- 2022 22. Mussels in hot water: the behavioural ecology of temperate mussels under ocean warming and acidification. GEOMAR Seminar Series. Germany
- 2021 \*21. A personal tale of mental health in academia. Reaching Higher Conference. Fredericton, NB  
 \*20. Mussels in hot water: the behavioural ecology of temperate mussels under ocean warming and acidification. WasserCluster Lunz Seminar Series. Austria  
 \*19. Ocean acidification and fish behaviour: impending doom or false alarms? Science Atlantic – Atlantic Undergraduate Biology, Aquaculture and Fisheries Conference (Plenary). Sydney, NS  
 \*18. Ocean acidification and fish behaviour: impending doom or false alarms? University of Calgary EEB Seminar Series. Calgary, AB
- 2020 \*17. Ocean acidification and fish behaviour: doom and gloom or false alarms? St. FX Undergraduate Research Seminar. Antigonish, NS

- \*16. To dig or not to dig: marine bivalve behaviour under high CO<sub>2</sub>. VIMS College of William and Mary Seminar Series. Gloucester Point, VA
- †15. What have we learned over a decade of research on ocean acidification and fish behaviour? Science Atlantic – Atlantic Undergraduate Biology, Aquaculture and Fisheries Conference (Plenary). Sydney, NS
- 14. Four “simple” steps to get where you’re going. Reaching Higher Conference. Fredericton, NB
- 13. Ocean acidification and fish behaviour: impending doom or false alarms? DFO Gulf Seminar Series. Moncton, NB
- 2019
  - 12. Ocean acidification and fish behaviour: impending doom or false alarms? Acadia University Seminar Series. Wolfville, NS
  - 11. The 'decline effect' characterizes a decade of ocean acidification research on fish behaviour. UNB Saint John Graduate Seminar Series. Saint John, NB
  - 10. To dig or not to dig: marine bivalve behaviour under high CO<sub>2</sub>. Mount Allison University (job interview). Sackville, NB
  - 9. To dig or not to dig: marine bivalve behaviour under high CO<sub>2</sub>. Texas A&M University Corpus Christi (job interview). Corpus Christi, TX
  - 8. To dig or not to dig: marine bivalve behaviour under high CO<sub>2</sub>. Auburn University (job interview). Auburn, AL
- 2018
  - 7. Predator in the pool: predatory publishing in aquaculture research. DFO Gulf Seminar Series. Moncton, NB
- 2017
  - 6. Marine animal behavior in a high CO<sub>2</sub> world. Cape Breton University Undergraduate Seminar. Sydney, NS
  - 5. Oysters on the edge: Ocean acidification effects on adult oysters in the context of coastal variability. DFO Gulf Seminar Series. Moncton, NB
  - 4. Marine animal behavior in a high CO<sub>2</sub> world. University of Prince Edward Island Seminar Series. Charlottetown, PE
  - 3. Marine animal behavior in a high CO<sub>2</sub> world. Université de Moncton Seminar Series. Moncton, NB
- 2016
  - 2. Marine animal behavior in a high CO<sub>2</sub> world. St. Francis Xavier University Seminar Series. Antigonish, NS
- 2014
  - 1. Social media and research: The use of social media in academia and Altmetric application. UNB Bailiwick. Saint John, NB

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## Industry and government presentations

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- 2023
  - 9. Climate change and shellfish aquaculture in Atlantic Canada: Effects of ocean warming and acidification on PEI mussels and NB oysters. PEI Aquaculture Association AGM. Charlottetown, PE
  - 8. Oyster research update: 2022-2023. New Brunswick Oyster Advisory Meeting. Charlottetown, PE
  - 7. Soft-shell clam research update: 2022-2023. PEI Shellfish Association Clam Advisory Meeting. Charlottetown, PE
- 2022
  - 6. Clam restoration techniques and their effectiveness. PEI Shellfish Association Annual General Meeting. Charlottetown, PE
- 2018
  - 5. Impacts of elevated seawater temperature and pCO<sub>2</sub> on PEI mussels. PEI Aquaculture Alliance Annual General Meeting. Charlottetown, PE
  - 4. Settlement of larval oysters (*Crassostrea virginica*) on natural versus man-made substrates. Atlantic Science Enterprise Workshop: Interactions between wild oyster beds and cultured oyster farms. Charlottetown, PE

3. Comparing effects of air exposure on mortality of PEI oysters (*Crassostrea virginica*) between June and July. PEI Oyster Advisory Committee. Charlottetown, PE
- 2017 2. Habitats / coastal and significant areas: Status and trends summary. DFO State of the Ocean, Atlantic Region Workshop. Moncton, NB
- 2014 1. Experimental effects of sediment acidification on juvenile soft-shell clams: Implications for Atlantic shellfisheries. Atlantic Canada Fish Farmers Association Workshop. St. Andrews, NB

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## Policy application

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- 2023 Co-author of Canadian Science Advisory Secretariat titled, “*Characterizing the effects of suspended oyster aquaculture on eelgrass in the Gulf Region*” held on March 30, 2023 (document forthcoming)
- 2022 Work regarding nitrogen removal of shellfish aquaculture used in a policy report published by UK Centre for Ecology & Hydrology (UKCEH) titled, “*Nitrogen Opportunities for Agriculture, Food & Environment: UNECE Guidance Document on Integrated Sustainable Nitrogen Management*” [Link](#)
- Work regarding ocean acidification and marine aquaculture used in Chapter 14 of the latest policy report published by the Intergovernmental Panel on Climate Change (IPCC) titled, “*Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*” [Link](#)
- Work regarding ocean acidification and marine aquaculture used in a policy report published by the Food and Agricultural Organization (FAO) of the United Nations (FAO) titled, “*Regional review on status and trends in aquaculture development in Asia and the Pacific – 2020*” [Link](#)
- Work regarding predatory publishing in the field of aquaculture used in a policy report published by the Food and Agricultural Organization (FAO) of the United Nations (FAO) titled, “*Identification and analysis of marine fisheries research - Case studies from selected countries in the Fishery Committee for the Eastern Central Atlantic (CECAF) area of competence*” [Link](#)
- 2021 Co-author of Canadian Science Advisory Secretariat titled, “*Dissolved oxygen as a Marine Environmental Quality (MEQ) measure in upper estuaries of the southern Gulf of St. Lawrence: Implications for nutrient management and eelgrass (*Zostera marina*) coverage*” [Link](#)
- Work regarding nitrogen removal of shellfish aquaculture used in a policy report published by The Nature Conservancy titled, “*Global Principles of Restorative Aquaculture.*” [Link](#)
- Work regarding ocean acidification and marine aquaculture used in a policy report published by The Publications Office of the European Union titled, “*Sustainability criteria for the blue economy*” [Link](#)
- Work regarding oyster shell parasites (*Polydora*) used in a policy report published by The Publications Office of the European Union titled, “*Study on Invasive Alien Species*” [Link](#)
- 2019 Work regarding ocean acidification and marine aquaculture used in a policy report published by Analysis & Policy Observatory (APO) titled, “*Our Marine Environment 2019*” [Link](#)
- 2018 Co-author of chapter in the 2018 Atlantic State of the Oceans Report titled, “*Habitat, Coastal, and Significant Benthic Areas*” [Link](#)

Presentation of work regarding oyster air exposure and summer mortality to the PEI Oyster Advisory Committee led to consideration of changes to the fishing season and direct managerial decision to not change the dates of the season

Work regarding ocean acidification and marine aquaculture, as well as work regarding climate change and oyster shell parasites, used in a policy report published by Intergovernmental Panel on Climate Change (IPCC) titled, “*Global Warming of 1.5 °C*” [Link](#)

2017 Work regarding ocean acidification and marine aquaculture used in a policy report published by the Food and Agricultural Organization (FAO) of the United Nations (FAO) titled, “*The Impact of Climate Change on Future Fish Supply Trade and Consumption*” [Link](#)

2015 Work regarding sediment acidification and clams used in a policy report published by the Institut du développement durable et des relations internationales (IDDRI) titled, “*Une synthèse actualisée des impacts observés et projetés du changement climatique sur les processus physiques et biologiques dans les océans*” [Link](#)

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## HQP supervision

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*Undergraduate*      *Graduate*      *Postdoctoral*      *Professional*

Current      **Université du Québec à Rimouski**  
[Dr. Guillaume Bridier](#), 2022-present  
Postdoctoral fellow (co-supervised with R. Tremblay)

**University of New Brunswick, Saint John**  
[Sarah Harrison](#), 2023-present  
MSc student (co-supervised with H. Hunt)

Former      **Université de Moncton**  
[Tamara Ledoux](#), 2020-2023  
MSc student (co-supervised with G. Miron)

**DFO Gulf**  
[Claire Carver](#), 2022-2023  
Casual Aquatic Science Technician

**Université de Moncton**  
[Tamara Ledoux](#), 2019  
BSc honours student (co-supervised with S. Lamarre and L. Comeau)  
**Current position:** MSc candidate, Université de Moncton

**University of Alberta**  
[Hannah Lowes](#), 2019  
BSc honours student (co-supervised with T. Blewett)  
**Current position:** MSc candidate, University of Alberta (recently defended)

**University of New Brunswick, Saint John**  
[Melanie Bishop](#), 2015  
BSc honours student (co-supervised with H. Hunt)  
**Current position:** Physiotherapist, Northside Physiotherapy Clinic - pt Health

**University of New Brunswick, Saint John**  
[Krystal Woodard](#), 2014  
BSc honours student (co-supervised with H. Hunt)  
**Current position:** Aquatic Science Technician, Fisheries and Oceans Canada  
Winnipeg (Freshwater Institute)

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## Additional teaching and supervisory experience

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- 2022      **Guest lecture**  
University of New Brunswick Saint John  
Marine Semester (Topic: climate change and shellfish aquaculture in Atlantic Canada)
- Workshop instructor**  
Joint Meeting of Atlantic Canada Coastal and Estuarine Science Society and the Bay of Fundy Ecosystem Partnership.  
“Introduction to systematic reviews and meta-analyses”
- 2021      **Workshop instructor**  
Memorial University of Newfoundland  
“Meta-analysis 101: Grasping the basics of evidence synthesis using R”  
Workshop hosted by MUN BGSA and OSGSA
- Virtual guest lecture**  
University of New Brunswick Saint John  
History and Development of Aquaculture (Topic: climate change and shellfish aquaculture in Atlantic Canada)
- 2020      **PhD proposal examining committee member**  
University of New Brunswick Saint John  
PhD candidate: Samantha McGarrigle
- Virtual guest lecture**  
University of New Brunswick Saint John  
Marine Semester (Topic: Ocean acidification)
- 2018      **PhD external work placement supervisor**  
University of Prince Edward Island  
PhD candidate: Paula Tummon-Flynn
- MSc examining committee member**  
Dalhousie University  
MSc candidate: Ian Sewell
- 2017      **Contract academic instructor**  
University of New Brunswick Saint John  
BIOL 4445: Marine Behavioural Ecology
- MSc examining committee member**  
Université de Moncton  
MSc candidate: Roxanne Saulnier
- 2016      **Contract academic instructor**  
University of New Brunswick Saint John  
BIOL 4445: Marine Behavioural Ecology
- Teaching assistant orientation leader**  
University of New Brunswick Saint John
- 2015      **Contract academic instructor**  
University of New Brunswick Saint John  
BIOL 1202: Introduction to Marine Science

**Guest lectures**

University of New Brunswick Saint John

BIOL 4861: Advanced Environmental Biology (Topic: Ocean acidification)

BIOL 3625: Structure and Function of Marine Invertebrates (Topic: Molluscs)

BIOL 6913: Research Methods (Topic: Social media use)

BIOL 3165: Marine Ecology (Topic: Ocean acidification)

**Experimental teaching**

University of New Brunswick Saint John

Empirical study re. engaging students with social media in BIOL 1202

Noteworthy products of the research:

- Selected as 1 of 14 “Disruptive Innovators” at UNB (<https://bit.ly/2ElezeU>)
- Three research seminars
- Two publications

2014

**Contract academic instructor**

University of New Brunswick Saint John

BIOL 2125: Introductory Botany

**Guest lectures**

University of New Brunswick Saint John

BIOL 1202: Introduction to Marine Science (Topic: Ocean acidification)

BIOL 3541: Plant Ecology (Topic: Statistics)

BIOL 3625: Structure and Function of Marine Invertebrates (Topic: Molluscs)

BIOL 2125: Introductory Botany (Topic: Scientific writing)

**Kate Frego Teaching Mentorship Program**

University of New Brunswick Saint John

Mentee of Dr. Emin Civi

**Teaching assistant orientation leader**

University of New Brunswick Saint John

2013

**Teaching assistant**

University of New Brunswick Saint John

**Guest lecture**

University of New Brunswick Saint John

BIOL 3165: Marine Ecology (Topic: Soft sediment habitats)

2012

**Teaching assistant**

University of New Brunswick Saint John

**Guest lecture**

University of New Brunswick Saint John

BIOL 3625: Structure and Function of Marine Invertebrates (Topic: Malacology)

2011

**Teaching assistant**

University of New Brunswick Saint John

**Guest lecture**

Cape Breton University

NATSCI 120: Natural Science (Topic: Gastropod ecology)

2010

**Teaching assistant**

Cape Breton University

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## Advanced courses, workshops, and webinars

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### Advanced courses

2016            **Marine evolution under climate change**  
University of Gothenburg  
Instructors: Dr. Sam Dupont and Dr. Piero Calosi

### Workshops

2020            **Ecosystem approach to fisheries management**  
Fisheries and Oceans Canada  
Instructor: Dr. Pierre Pepin

2015            **Spatial statistics: from descriptive to inferential methods**  
Meeting of the Atlantic Canadian Coastal and Estuarine Science Society  
Instructor: Dr. Marie-Josée Fortin

**Climate change and aquaculture in Canada: Atlantic workshop**  
NSERC partnership workshop with St. Andrews Biological Station  
Instructor: Dr. Gregor Reid

2012            **Designing writing assignments that teach**  
Cape Breton University  
Instructor: Dr. Jan Pechenik

**Guiding student revision without killing ourselves in the process**  
Cape Breton University  
Instructor: Dr. Jan Pechenik

### Webinars

2016            **Our ocean in a high CO<sub>2</sub> world: The latest in science & communication**  
SOARCE Webinar Series  
National Oceanic and Atmospheric Administration

2014            **Bringing OA research to the classroom**  
SOARCE Webinar Series  
National Oceanic and Atmospheric Administration

**Communicating OA around the world**  
SOARCE Webinar Series  
National Oceanic and Atmospheric Administration

**From science to communication**  
SOARCE Webinar Series  
National Oceanic and Atmospheric Administration

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## Academic service

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2022            **Committee member**  
DFO Gulf Regional Science Culture committee (2022 – present)

2021            **President**  
Atlantic Canada Coastal and Estuarine Science Society (2021 – present)

2020            **Subject editor**  
FACETS (2020 – present)



**Co-editor**

DFO Gulf Secondary Publications (2020 – present)  
CERF Coastal & Estuarine Research News (2015 – present)

**Peer reviewer**

Member – New Brunswick Innovation Foundation network of reviewers (2020–present)

**Peer reviewer for 96 primary manuscripts for 48 journals to date**

High IF: Glob Change Biol (4), Nature Sust (1), PLoS Biol (2), Proc B (2), Trends Cog Sci (1)

Others: Adv Limnol (1), Aquacult Environ Interact (3), Aquacult Res (2), Aquat Living Resour (1), Behav Ecol (1), Cons Physiol (2), Diseases Aquat Organ (1), Ecology (1), Ecotoxicology (1), Environ Poll (1), Environ Sci Technol (4), Estuar Coasts (1), Estuar Coast Shelf Sci (2), F1000 Res (1), FACETS (1), Fla Entomol (2), Front Mar Sci (1), Front Physiol (1), Hydrobiologia (1), ICES J Mar Sci (7), Integr Comp Biol (1), Invert Biol (2), J Exp Mar Biol Ecol (4), J Oceanol Limnol (1), J Shellfish Res (5), Mar Biol (1), Mar Biol Res (1), Mar Freshw Behav Physiol (2), Mar Ecol Prog Ser (7), Mar Environ Res (2), Mar Pol (1), Mar Poll Bull (3), Med Mar Sci (1), Northeast Nat (3), Ocean Coast Manag (1), Ocean Sci J (1), PeerJ (2), PLoS One (2), Polar Biol (2), Reg Stud Mar Sci (1), R Soc Open Sci (1), Sci Rep (3), Sci Tot Environ (4)

**Peer reviewer for 188 grant proposals for 4 funding agencies to date**

Mitacs Elevate (1), Orgon Sea Grant (2), Western Regional Aquaculture Centre (1), NOAA Saltonstall-Kennedy (2), New Brunswick Innovation Foundation (182)

**Committee member**

Local Organizing Committee  
2021 American Malacological Society Meeting  
Sydney, NS

2018

**Committee member**

Local Organizing Committee  
2019 Canadian Society for Ecology and Evolution Meeting  
Fredericton, NB

Outreach & Development Committee  
Coastal and Estuarine Research Federation  
Leader of CERF social media team

2017

**Committee member**

Outreach & Development Committee  
Coastal and Estuarine Research Federation  
Leader of CERF social media team

2016

**Committee member**

Outreach & Development Committee  
Coastal and Estuarine Research Federation  
Leader of CERF social media team

2015

**Committee member**

Scientific Advisory Committee  
LemonSea Project

Local Organizing Committee  
2015 Atlantic Canadian Coastal and Estuarine Science Society Meeting  
St. Andrews, NB

Outreach & Development Committee  
Coastal and Estuarine Research Federation  
Member of CERF social media team

Various university committees  
University of New Brunswick Saint John  
Review Committee for the Registrar  
Program Review Committee  
Information, Services & Systems

2014

**President**

Graduate Student Association  
University of New Brunswick Saint John

**Committee member**

Outreach & Development Committee  
Coastal and Estuarine Research Federation

**Committee member**

Various university committees  
University of New Brunswick Saint John  
Teaching Excellence & Policy  
Search for Acting Dean of the Faculty of SASE  
Review Committee for the Registrar  
Information, Services & Systems  
Graduate Research Seminar Feedback Committee

2013

**President**

Graduate Student Association  
University of New Brunswick Saint John

**Committee member**

Various university committees  
University of New Brunswick Saint John  
Teaching Excellence & Policy  
Search for Acting Dean of the Faculty of SASE  
Program Review Committee  
Graduate Research Seminar Feedback Committee

2012

**President**

Graduate Student Association  
University of New Brunswick Saint John

**Committee member**

Various university committees  
University of New Brunswick Saint John  
Program Review Committee

2011

**Vice president**

Graduate Student Association  
University of New Brunswick Saint John

2010

**Committee member**

Various university committees  
Cape Breton University  
Department of Biology Senate  
Biology Undergraduate Research Committee

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## Science communication and public outreach

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- 2019      **Public outreach demonstrations**  
Kristineberg Marine Research Centre  
Västerhavsveckan, West Coast Week (Topic: bivalve ecosystem services)  
Fiskebäckskil, Sweden
- 2018      **Webinar**  
NOAA – Northeast Coastal Acidification Network  
Beyond dissolution: sediment acidification effects on bivalves and their ecological consequences
- 2017      **Webinar**  
Coastal and Estuarine Research Federation  
Social media and science: navigating science communication in a hyper connected world
- 2016      **Public seminar**  
Moncton Naturalists' Club  
Ocean acidification: The other CO<sub>2</sub> problem  
Moncton, NB
- 2015      **Public seminar**  
Sussex Naturalists' Club  
Ocean acidification: The other CO<sub>2</sub> problem  
Sussex, NB
- Conference workshop**  
Biennial Meeting of the Coastal and Estuarine Research Federation  
Title: Social media and science  
Portland, OR
- Educational outreach**  
Fundy Regional Science Fair  
Shad Valley  
Saint John, NB
- 2014      **Public outreach: Letters to the editor (newspaper)**  
Cape Breton Post  
Toon reinforced climate change misconceptions
- Times & Transcript  
News media biased against UNB profs
- Educational outreach**  
Fundy Regional Science Fair  
Shad Valley  
Saint John, NB
- Public seminar**  
Saint John Naturalists' Club  
Ocean acidification: The other CO<sub>2</sub> problem  
Saint John, NB
- Volunteer**  
Let's Talk Science University of New Brunswick Saint John  
Saint John, NB
- 2013      **Educational outreach**  
Shad Valley  
Saint John, NB

## Volunteer

Let's Talk Science, University of New Brunswick Saint John  
Saint John, NB

## Event organizer

Stand Up for Science  
Fredericton, NB

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## In the news

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2022

### **Phys.org** [Link](#)

Sharp decline in reported severity of ocean acidification impacts on fish behaviour

### **Science Magazine** [Link](#)

Sharp decline in reported severity of ocean acidification impacts on fish behaviour

### **LabRoots** [Link](#)

Reports of severe ocean acidity and its effects on fish have declined

2021

### **CBC Quirks and Quarks** [Link](#)

Normally herbivorous sea urchins turn the tables on a predatory sun star

### **ScienceNews** [Link](#)

Urchin mobs team up to butcher sea stars that prey on them

Author: Jake Buehler

### **Popular Mechanics (in Russian)** [Link](#)

How sea urchins team up to kill starfish

Author: Kirill Panov

### **Naked Science (in Russian)** [Link](#)

For the first time, biologists observed the "schooling" of sea urchins

Author: Sergey Vasiliev

### **Havnet.nu (in Swedish)** [Link](#)

Sea urchins in collective attack

Author: Helen Nilsson-Sköld

### **Science** [Link](#)

Does ocean acidification alter fish behavior? Fraud allegations create a sea of doubt

Author: Martin Enserink

### **Phys.org** [Link](#)

Studies find that higher temperatures have an adverse effect on mussels

2020

### **Hatchery International** [Link](#)

Canadian Maritime oysters show resilience to ocean acidification: study

Author: Mari-Len De Guzman

### **The Fish Site** [Link](#)

East coast oysters show resilience to ocean acidification

Author: Rob Fletcher

2019

### **The Fish Site** [Link](#)

Can shellfish aquaculture save coastal bays?

Author: Megan Howell

- Aquaculture North America** [Link](#)  
The power of aquaculture  
Author: Andy Walker
- 2018 **Aquaculture North America** [Link](#)  
Questionable research papers could pose threat to aquaculture  
Author: Liza Mayer
- The Fish Site** [Link](#)  
Infernal journals and how to spot them  
Author: Samantha Andrews
- SciDev Net** [Link](#)  
Acidified oceans may affect fish populations — study  
Author: Claudia Caruana
- 2017 **UNB Alumni Magazine** [Link](#)  
Marine biology at UNB Saint John: Unlocking the mysteries of the Bay of Fundy  
Author: Margaret Grant-McGivney
- Telegraph Journal** [Link currently unavailable](#)  
UNBSJ alumnus receives prestigious research grant
- UNB News** [Link](#)  
UNB alumnus awarded prestigious Marie Curie Fellowship from European Union  
Author: Claire Geldart
- LiveScience** [Link](#)  
#DoesItFart: Database answers your burning questions about animal gas  
Author: Mindy Weisberger
- Popular Science** [Link](#)  
#DoesItFart is the burning science question you never knew you had  
Author: Sara Chodosh
- 2015 **Portland Press Herald** [Link](#)  
Shellfish can't keep up with shifting ocean chemistry  
Author: Colin Woodard
- 2014 **CBC News** [Link](#)  
Research links clam behaviour to climate change  
Author: Shane Fowler
-