Kevin C. K. Ma, PhD

Postdoctoral Fellow

Department of Ocean Sciences, Memorial University of Newfoundland 0 Marine Lab Road, St. John's, Newfoundland and Labrador, A1C 5S7, Canada

kevin.ma@mun.ca; kevinckma@gmail.com

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| 2020 | PhD in Oceanography, Université Laval |
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| 2012 | MSc in Biology, Memorial University of Newfoundland |
| 2008 | BSc in Ecology and Environmental Biology (Linguistics Minor), University of British Columbia |

RESEARCH EXPERIENCE

Overview:

More than ten years of research experience in fundamental and applied marine ecology and biology, including intertidal and subtidal systems from subtropical to polar waters

Extensive experience in executing projects (setting research goals, managing human resources, managing field logistics) in Canada and South Africa

Proficient scientific communication skills (peer-reviewed articles, seminars, and conferences); languages: English (fluent), French (basic), Cantonese (basic), Mandarin (basic)

International and local collaborations with university, government, and museum researchers, industry partners, and Indigenous groups

Current research focuses on echinoderm taxonomy, ecology, and fisheries in Newfoundland (Atlantic Canada) and Nunavut (the Canadian Arctic)

Research history:

2022 - Present

Postdoctoral Fellow (Mitacs Accelerate), Memorial University of Newfoundland (MUN)

Research projects on documenting range extensions of deep-sea echinoderms, optimising sea cucumber harvesting and processing in Atlantic Canada, and assessing the feasibility of a sea cucumber fishery in Nunavut; academic host: Annie Mercier (Professor, MUN)

2019 - 2022

Postdoctoral Research Fellow (NRF Bursary), Rhodes University (RU)

Research projects on the biogeography of mussels and sea urchins, effects of an environmental gradient on infestation levels and epibiont load on mussel shells, and the relative importance of exploitative and interference competition between two colonial species; academic hosts: Christopher D. McQuaid (Professor Emeritus, RU), P. William Froneman (Professor, RU)

2013 - 2019

PhD Candidate (NSERC CASIN II), Université Laval (UL)

Joint university—government research project on optimizing sampling strategies for the early detection and monitoring of marine invasive species at different early life history stages and across multiple scales of space and time; thesis supervisors: Ladd E. Johnson (Professor, UL), Christopher W. McKindsey (government Research Scientist, DFO)

2012

Research Assistant (NSERC CASIN II, Stagiaire DFO), Université du Québec à Rimouski (UQAR) Research projects on seasonal fluctuations in recruitment of biofouling organisms and on the effect of climatic variations and biological invasions on the development of benthic assemblages; principal investigator: Christopher W. McKindsey (Adjunct Professor, UQAR)

2009 - 2012

MSc Candidate (NSERC Supplemental Grant), Memorial University of Newfoundland (MUN) Joint university—government research projects on ascidian biodiversity and zoogeography, on population dynamics of a marine invasive species in Newfoundland, and on best practice guidelines to manage invasive ascidians; thesis supervisors: Don Deibel (Research Professor, MUN), Cynthia H. McKenzie (government Research Scientist, DFO)

2007 & 2008* Research Assistant (HRSDC & NSERC USRA), University of British Columbia (UBC)
Research projects to collect global data on invasive species and to identify critical marine habitats in southern British Columbia by eliciting local ecological knowledge from resource users; principal investigator: Kai M. A. Chan (Assistant Professor, UBC) *summer positions*

RESEARCH FUNDING & FELLOWSHIPS

| 2021 Page <u>Publication Grant</u> (No. PP69/2021), Research Office, Rhodes University (1,760 USD) 2020 <u>Archiving and Publication Bonus</u> (<i>prime à l'archivage et la publication</i>), Québec-Océan (500 CAD) |
|--|
| 2020 <u>Research Bonus,</u> South African Research Chairs Initiative (SARChI) in Marine Ecosystems and Resources, National Research Foundation (NRF), Rhodes University (20,000 ZAR) |
| 2019 – 2022 Postdoctoral Research Fellowship, National Research Foundation (NRF) Bursary (600,000 ZAR) 2019 Bursary in Marine Ecology (bourse en écologie marine), Université Laval (500 CAD) 2017 Dr. R.C. Frazee & Dr. W.B. Scott Student Research Award, Huntsman Marine Science Centre (2,500 CAD) |
| 2017 <u>Financial Assistance for Short Training</u> (aide financière pour formation courte), Québec-Océan (1,500 CAD) |
| 2017 <u>Fellowship, Smithsonian Tropical Research Institute (400 USD)</u> |
| 2016 & 2019 Financial Assistance for Conferences (aide financière aux congrès), Québec-Océan (1,000 & |
| 1,000 CAD, respectively) |
| 2016 & 2019 Individual <u>Grant for a Conference</u> (subvention individuelle pour un congrès), Association des étudiant(e)s gradué(e)s en sciences et en génie (AEGSEG), Université Laval (200 & 300 CAD) |
| 2016 <u>Travel Grant</u> , North Pacific Marine Science Organization (PICES) (800 CAD) |
| 2015 <u>Travel Grant</u> , Atlantic Canada Coastal & Estuarine Science Society (ACCESS) (200 CAD) |
| 2015 <u>Travel Bursary</u> , NSERC Canadian Aquatic Invasive Species Network II (CAISN) (2,780 CAD) |
| 2015 Richard-Bernard <u>Fund</u> (<i>Fonds Richard-Bernard</i>), Université Laval (300 CAD) |
| 2013 & 2019 Educational <u>Grant</u> (<i>subvention pédagogique</i>), Association des étudiantes et des étudiants de Lava inscrits aux études supérieures (AELIÉS), Université Laval (150 & 200 CAD) |
| 2013 & 2018 Léon-Provancher <u>Bursary</u> (<i>Bourse Léon-Provancher</i>), Université Laval (300 & 500 CAD) |
| 2013 – 2016 Graduate <u>Research Fellowship</u> , NSERC Canadian Aquatic Invasive Species Network II (CAISN), (57,000 CAD) |
| 2013 <u>Grant for a Conference</u> (<i>subvention congrès</i>), Association des chercheures et chercheurs- étudiant(e)s de biologie de l'Université Laval (ACCÉBUL) (75 CAD) |
| 2012 Student <u>Bursary</u> , Newfoundland Aquaculture Industry Association (300 CAD) |
| 2012 Graduate Student <u>Travel Assistance</u> , Memorial University of Newfoundland (2,100 CAD) |
| 2009 – 2011 Graduate <u>Research Fellowship</u> , Natural Sciences and Engineering Research Council of Canada (NSERC) Supplemental Strategic Grant (36,000 CAD) |
| Undergraduate Student Research Award (USRA), Natural Sciences and Engineering Research Council of Canada (NSERC) (4,500 CAD) |
| 2008 Student Initiatives <u>Fund</u> , Alma Mater Society, University of British Columbia (112 CAD) *Fundin to attend a scientific conference |
| 2007 Summer Work Experience (a youth employment program), Human Resources and Skills Development Canada (HRSDC) (4,320 CAD) |

AWARDS & PRIZES

| 2018 | Best Talk, 9ème Colloque de département de biologie (symposium), Université Laval |
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| 2016 | Highly Commended (oral presentation), 9th International Conference on Marine BioInvasions |
| 2015 | Best Talk Runner-up, 6ème Colloque de département de biologie (symposium), Université Laval |
| 2014 | Best Poster Runner-up, Canadian Aquatic Invasive Species Network, Annual General Meeting |
| 2012 | Fellow of the School of Graduate Studies (for outstanding academic merit and a GPA > 3.8), |
| | Memorial University of Newfoundland |
| 2010 | People's Choice Award (oral presentation), 3rd Annual Biology Graduate Student Symposium, |
| | Memorial University of Newfoundland |
| 2008 | Best Poster, 7th Multidisciplinary Undergraduate Research Conference, UBC Office of Vice |
| | President Research, University of British Columbia |

PUBLICATIONS

| Summary: | 19 publications in scholarly journals (16 first-authored), 1 in review, 1 submitted, 5 in preparation |
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| | 154 citations, h-index of 8 (Google Scholar as of January 2024) |
| | Open Researcher and Contributor ID (ORCID) 0000-0003-1678-077X |

Publications in scholarly journals:

(IF = 2022 journal impact factor)

| Publications in | scholarly journals: (1r – 2022 Journal | impact factor) |
|-----------------|---|--------------------------|
| 19. | Ma KCK, Trenholm R, Hamel JF, Mercier A. 2023. The enigma of stones found in the body cavities of sea cucumbers. SPC Beche-de-mer Information Bulletin 43: 32–38. https://www.spc.int/DigitalLibrary/Doc/FAME/InfoBull/BDM/43/BDM43_32_Ma.pdf | 0 citations IF: none |
| 18. | Boonzaaier-Davids MK, Ma KCK, McQuaid CD. 2023. Epibiotic association of encrusting bryozoans on shells of an invasive mussel from rocky shores of South Africa, with the description of a new aviculiferous species of <i>Chaperia</i> . <i>Zootaxa</i> 5258 (2): 197–210. https://doi.org/10.11646/zootaxa.5258.2.2 | 0 citations IF: 1.026 |
| 17. | Ma KCK, Monsinjon JR, Froneman PW, McQuaid CD. 2023. Thermal stress gradient causes increasingly negative effects towards the range limit of an invasive mussel. <i>Science of The Total Environment</i> 865: 161184. https://doi.org/10.1016/j.scitotenv.2022.161184 | 4 citations IF: 10.753 |
| 16. | Ma KCK, Pulfrich A, Froneman PW, McQuaid CD. 2023. Invasion of rocky shores by a mytilid mussel reveals an abundant-centre distribution coupled with moderate increases in densities at its absolute range limits. <i>Austral Ecology</i> 48 (1): 197–214. https://doi.org/10.1111/aec.13260 | 0 citations IF: 1.771 |
| 15. | Ma KCK, McKindsey CW, Johnson LE. 2022. Detecting rare species with passive sampling tools: Optimizing the duration and frequency of sampling for benthic taxa. <i>Frontiers in Marine Science</i> 9: 809327. https://doi.org/10.3389/fmars.2022.809327 | 2 citations IF: 5.247 |
| 14. | Ma KCK, McQuaid CD. 2021. Review of range extensions of tropical brachyuran crabs into temperate waters of southern Africa. <i>Crustaceana</i> 94 (10): 235–1262. https://doi.org/10.1163/15685403-bja10144 | 3 citations IF: 0.758 |
| 13. | Ma KCK, Redelinghuys S, Gusha MNC, Dyantyi SB, McQuaid CD, Porri F. 2021. Intertidal estimates of sea urchin abundance reveal congruence in spatial structure for a guild of consumers. <i>Ecology and Evolution</i> 11 (17): 11930–11944. http://doi.org/10.1002/ece3.7958 | 3 citations IF: 3.167 |
| 12. | Ma KCK, Gusha MNC, Zardi GI, Nicastro KR, Monsinjon JR, McQuaid CD. 2021. Biogeographic drivers of distribution and abundance in an alien ecosystem engineer: Transboundary range expansion, barriers to spread, and spatial structure. <i>Journal of Biogeography</i> 48 (8): 1941–1959. https://doi.org/10.1111/jbi.14124 | 8 citations IF: 4.810 |
| 11. | Ma KCK, McQuaid CD, Pulfrich A, Robinson TB. 2020. Status of a decennial marine invasion by the bisexual mussel <i>Semimytilus algosus</i> (Gould, 1850) in South Africa. <i>African Journal of Marine Science</i> 42 (4): 507–515. https://doi.org/10.2989/1814232X.2020.1820376 | 7 citations IF: 0.893 |

| 10. | <u>Ma KCK</u> , McKindsey CW, Johnson LE. 2020. Larval supply is a limited determinant of settlement at mesoscales across an anthropogenic seascape. <i>Hydrobiologia</i> 847: 4015–4029. https://doi.org/10.1007/s10750-020-04391-y | 1 citation IF: 2.822 |
|---------------|---|---------------------------|
| 9. | Ma KCK, Zardi GI, McQuaid CD, Nicastro KR. 2020. Historical and contemporary range expansion of an invasive mussel, <i>Seminytilus algosus</i> , in Angola and Namibia despite data scarcity in an infrequently surveyed region. <i>PLoS ONE</i> 15 (9): e0239167. https://doi.org/10.1371/journal.pone.0239167 | 5 citations IF: 3.752 |
| 8. | Ma KCK, Glon HE, Hawk HL, Chapman CN. 2020. Reconstructing the distribution of the non-native sea anemone, <i>Diadumene lineata</i> (Actiniaria), in the Canadian Maritimes: Local extinction in New Brunswick and no regional range expansion in Nova Scotia since its initial detection. <i>Regional Studies in Marine Science</i> 34: 101049. https://doi.org/10.1016/j.rsma.2020.101049 | 6 citations IF: 2.166 |
| 7. | Carman MR, Colarusso PD, Neckles HA, Bologna P, Caines S, Davidson JDP, Evans NT, Fox SE, Grunden DW, Hoffman S, Ma KCK, Matheson K, McKenzie CH, Nelson EP, Plaisted H, Reddington E, Schott S, Wong MC. 2019. Biogeographical patterns of tunicates utilizing eelgrass as substrate in the western North Atlantic between 39° and 47° north latitude (New Jersey to Newfoundland). Management of Biological Invasions 10 (4): 602–616. https://doi.org/10.3391/mbi.2019.10.4.02 | 9 citations IF: 2.282 |
| 6. | Ma KCK, Hawk HL, Goodwin C, Simard N. 2019. Morphological identification of two invading ascidians: new records of <i>Ascidiella aspersa</i> (Müller, 1776) from Nova Scotia and <i>Diplosoma listerianum</i> (Milne-Edwards, 1841) from New Brunswick and Quebec. <i>BioInvasions Records</i> 8 (1): 50–64. https://doi.org/10.3391/bir.2019.8.1.06 | 5 citations IF: 1.672 |
| 5. | Ma KCK, Goodwin C, Cooper JA. 2018. Second record of <i>Diplosoma listerianum</i> (Milne-Edwards, 1841) five years after and 280 kilometres from the site of the first record in Nova Scotia. <i>BioInvasions Records</i> 7 (2): 159–163. https://doi.org/10.3391/bir.2018.7.2.07 | 7 citations IF: 1.672 |
| 4. | Ma KCK, Deibel D, Lowen JB, McKenzie CH. 2017. Spatio-temporal dynamics of ascidian larval recruitment and colony abundance in a non-indigenous Newfoundland population. <i>Marine Ecology Progress Series</i> 585: 99–112. https://doi.org/10.3354/meps12437 | 8 citations IF: 2.915 |
| 3. | Ma KCK, Deibel D, Law KKM, Aoki M, McKenzie CH, Palomares MLD. 2017. Richness and zoogeography of ascidians (Tunicata: Ascidiacea) in eastern Canada. <i>Canadian Journal of Zoology</i> 95 (1): 51–59. https://doi.org/10.1139/cjz2016-0087 | 8 citations IF: 1.654 |
| 2. | Ma KCK, Simard N, Stewart-Clark SE, Bernier RY, Nadeau M, Willis J. 2016. Early detection of the non-indigenous colonial ascidian <i>Diplosoma listerianum</i> in eastern Canada and its implications for monitoring. <i>Management of Biological Invasions</i> 7 (4): 365–374. https://doi.org/10.3391/mbi.2016.7.4.06 | 8 citations IF: 2.282 |
| 1. | Moore AM, Vercaemer B, DiBacco C, Sephton D, <u>Ma KCK</u> . 2014. Invading Nova Scotia: first records of <i>Didemnum vexillum</i> Kott, 2002 and four more non-indigenous invertebrates in 2012 and 2013. <i>BioInvasions Records</i> 3 (4): 225–234. https://doi.org/10.3391/bir.2014.3.4.03 | 40 citations IF: 1.672 |
| Forthcoming p | ublications: | |
| | <u>Ma KCK</u> , Reddy S, Froneman PW, Porri F, McQuaid CD. Early signs of an extralimital population of a tropical brachyuran crab, <i>Portunus segnis</i> (Forskål, 1775), in a temperate river in sub-Saharan Africa. Submitted to <i>BioInvasions Records</i> . | IN REVIEW |
| | Scott MMF, Ma KCK, Wolvin S, Hamel JF, Mercier A. First report of skin ulceration disease from temperate waters of the Northwest Atlantic: The case of the sea cucumber <i>Cucumaria frondosa</i> . Submitted to <i>SPC Beche-de-mer Information Bulletin</i> | SUMBITTED |

Information Bulletin.

| | <u>Ma KCK</u> , Gao F, Hamel JF, Mercier A. First Canadian record and geographic and bathymetric range extension in the Northwest Atlantic for the dendrochirotid sea cucumber <i>Pawsonia saxicola</i> . Target journal: <i>Journal of the Marine Biological Association of the United Kingdom</i> . | IN PREP. |
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| | Corbisier G, Ma KCK, Jobson S, Hamel JF, Caulier G, Mercier A. Anatomical variations and anomalies in the sea cucumber <i>Cucumaria frondosa</i> : A morphological analysis. Target journal: <i>Canadian Journal of Zoology</i> . | IN PREP. |
| | <u>Ma KCK</u> , McKindsey CW, Johnson LE. Relative importance of spatial and temporal coverage for rare species sampling and insights into the optimal seasonal timing for site-specific species detection. | IN PREP. |
| | Lubbé A, Froneman PW, McQuaid CD, <u>Ma KCK</u> . An evaluation of the relative importance of interference and exploitative competition in marine systems. | IN PREP. |
| | Ma KCK, Gusha MNC, Rius M, Dievart AM, Wyness A, Bernier-Desmarais A, Zardi GI, Nicastro KR, Froneman PW, McQuaid CD. Records of invertebrate species on intertidal rocky shores across five South African marine ecoregions. | IN PREP. |
| Other publicat | tions (theses, conference proceedings, reports): | |
| 6. | Mercier A, Penney HD, <u>Ma KCK</u> , Lovatelli A, Hamel JF. 2023. A guide to northern sea cucumbers: The biology and management of <i>Cucumaria frondosa</i> . <i>FAO Fisheries and Aquaculture Technical Paper</i> , No. 700. Rome, FAO, pp. xvii + 92. https://doi.org/10.4060/cc7928en | 0 citations |
| 5. | Samy SS, Froneman PW, McQuaid CD, Ma KCK. 2022. A review of decapod biological invasions of polar waters. <i>Biological Science: A Periodical of the Research of the Zoology & Entomology Honours Students</i> 1 (1): 69–74. | 0 citations |
| 4. | Ma KCK. 2020. Rare species detection and benthic recruitment across multiple scales of space and time with implications for early detection of marine invasive species. PhD Thesis, Université Laval, Québec, Québec, pp. xxiv + 238. http://hdl.handle.net/20.500.11794/38152 | 3 citations |
| 3. | Deibel D, McKenzie CH, Rise ML, Thompson RJ, Lowen JB, <u>Ma KCK</u> , Applin G, O'Donnell R, Wells T, Hall JR, Sargent P, Pilgrim BB. 2014. Recommendations for eradication and control of non-indigenous, colonial, ascidian tunicates in Newfoundland harbours. <i>Canadian Manuscript Report of Fisheries and Aquatic Sciences</i> 3039, pp. xi + 60. https://waves-vagues.dfo-mpo.gc.ca/Library/352814.pdf | 12 citations |
| 2. | Ma KCK. 2012. Population dynamics of a non-indigenous colonial ascidian tunicate in a subarctic harbour. MSc Thesis, Memorial University of Newfoundland, St. John's, Newfoundland and Labrador, pp. xxii + 211. https://research.library.mun.ca/10937/ | 9 citations |
| 1. | Ma KCK, Deibel D, McKenzie CH. 2011. Indigenous and non-indigenous ascidian tunicates of Newfoundland and Labrador. <i>Proceedings of the Contributed Papers of the 27th Annual General Meeting of the Aquaculture Association of Canada</i> , Aquaculture Association of Canada Special Publication, No. 17: 58–63. https://aquacultureassociation.ca/wp-content/uploads/bsk-pdf-manager/2017/08/AC2010-Proceedings.pdf | 6 citations |
| INVITED SEM | MINARS & WORKSHOPS | |
| 2023 2023 2023 | Speaker, Sanikiluaq Hunters & Trappers Association (HTA) Meeting, Canada (15 Nov Speaker, Invasive Ascidian Workshop, Champney's West Aquarium, Canada (10 July Speaker, Sanikiluaq Community Fisheries Workshop, World Wildlife Fund Canada, C (webinar; 30 January) | 2023) |
| 2022 | Speaker, Department of Zoology and Entomology: Seminar Series, Rhodes University Africa (22 August) | , South |
| 2022 2021 | Speaker, Stratford Hall, Canada (2 March) Panelist, Science, Technology, Engineering, and Mathematics (STEM) and Art Panel, (Science and Math at Vanderbilt (SSMV), United States (webinar; 11 June) | School for |

| 2020 | Speaker, Research and Career Seminar Series, School for Science and Math at Vanderbilt (SSMV), United States (webinar; 23 June) |
|-------------|---|
| 2017 | Instructor and Organizer, Ascidian Taxonomy Workshop, Atlantic Research Centre (ARC), Canada |
| | (19 October) |
| 2017 | Speaker, Huntsman Marine Science Centre, Canada (13 October) |
| 2017 | Speaker, Bocas del Toro Research Station, Panama (29 June) |
| 2017 | Speaker, Institut Maurice-Lamontagne, Fisheries and Oceans Canada, Canada (11 May) |
| 2015 | Speaker and Student Co-organizer, Aquatic Invasive Species Knowledge Transfer Workshop, |
| | NSERC Canadian Aquatic Invasive Species Network II (CAISN), Canada (17–18 November) |
| 2010 & 2012 | Speaker, 3rd & 4th Newfoundland and Labrador Aquatic Invasive Species Workshops, Canada |
| | (18–19 March 2010 & 1–2 March 2012) |
| 2010 & 2011 | Speaker, Newfoundland and Labrador Aquatic Invasive Species Advisory Committee, Canada |
| | (4 March 2010 & 29 April 2011) |
| 2008 | Speaker, Peering into Research: The Seminar Series, Undergraduate Research Opportunities, |
| | University of British Columbia, Canada (6 November) |

COMMUNICATION & MEDIA COVERAGE

| Print and online content: | | |
|---------------------------|---|--|
| 2021 | Journal of Biogeography, "ECR Feature: Kevin Ma on the abundance and distribution of invasive mussels" (blog post, 9 October) https://journalofbiogeographynews.org/2021/10/09/ecr-feature-kevin-ma-on-the-abundance-and-distribution-of-invasive-mussels/ | |
| 2019 | Québec-Océan, "Culture on full display adds value to scientific meetings" (blog post, 30 January) https://quebecocean.wordpress.com/2019/01/30/culture-on-full-display-adds-value-to-scientific-meetings/ | |
| 2017 | Québec-Océan, "Taxonomy is more important than ever" (blog post, 14 September) https://quebecocean.wordpress.com/2017/09/14/taxonomy-is-more-important-than-ever/ | |
| 2014 | CBC Information Morning Cape Breton, "Invasive Species Research" (radio interview, 16 July) | |
| 2013 | <i>The Blue Heron</i> (The Bras d'Or Stewardship Society), "Lake-wide non-native tunicate research program" (print, July volume, pp. 6–7) | |
| 2012 | The Cold Harvester, "A closer look at student research: Seasonal population dynamics of a non-indigenous ascidian tunicate in a subarctic harbour" (print, Winter volume, pp. 29–29) | |
| 2011 | The Cold Harvester, "Newfoundland's alien tunicates: An overview of a collaborative research program to understand and control the spread of the golden star tunicate and violet tunicate" (print, Spring volume, pp. 22–24) | |
| 2011 | Fisheries and Oceans Canada, "Aquatic Invasive Species: Golden star tunicate in Newfoundland and Labrador waters" https://waves-vagues.dfo-mpo.gc.ca/Library/365567.pdf *content contributor | |
| 2011 | Fisheries and Oceans Canada, "Aquatic Invasive Species: Violet tunicate in Newfoundland and Labrador waters" https://waves-vagues.dfo-mpo.gc . ca/Library/365576.pdf *content contributor | |
| Social media: | | |
| 2018 | Managed social media at @wcmb2018 on Twitter for the 4th World Conference on Marine Biodiversity, Montreal, Canada | |
| 2015 | Managed social media at <u>@benthics2015</u> on Twitter for the 44th Annual Benthic Ecology Meeting, | |

CONTRIBUTED TALKS

Quebec City, Canada

| Scientific meetings: | | |
|----------------------|---|--|
| 2023 | 11th European Conference on Echinoderms, Lyon France *two talks were delivered | |
| 2023 | 56th European Marine Biology Symposium, Reykjavik, Iceland *delivered by co-author | |
| 2023 | Canadian Meteorological and Oceanographic Society 57th Congress, St. John's, Canada | |
| 2022 | 12th Western Indian Ocean Marine Science Association Scientific Symposium, | |
| | Gqeberha, South Africa *delivered by co-author | |
| 2022 | 10th Biennial Conference of the International Biogeography Society, Vancouver, Canada | |
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| 2010 | 12d Land Call Towns A. D. C. Commission Hawken Call Call | | |
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| 2019 2016 | 12th International Temperate Reefs Symposium, Hong Kong SAR, China 17th Biennial Benthic Workshop, St. Andrew's, Canada | | |
| 2016 | 45th Annual Benthic Ecology Meeting, Portland, United States | | |
| 2016 | 9th International Conference on Marine BioInvasions, Sydney, Australia (highly commended) | | |
| 2015 | Atlantic Canada Coastal and Estuarine Science Society 2015 Conference, St. Andrew's, Canada | | |
| 2015 | 44th Annual Benthic Ecology Meeting, Quebec City, Canada | | |
| 2013 | 8th International Conference on Marine BioInvasions, Vancouver, Canada *delivered by co-author | | |
| 2013 | 42nd Annual Benthic Ecology Meeting, Savannah, United States | | |
| 2013 | 2013 Aquatic Sciences Meeting, New Orleans, United States * delivered by co-author | | |
| 2013 | Cold Harvest TM 2012, 19th Annual Conference and Trade Show, Gander, Canada | | |
| 2012 | 2012 Ocean Sciences Meeting, Salt Lake City, United States | | |
| 2012 | 6th International Tunicate Meeting, Montreal, Canada | | |
| 2011 | Cold Harvest TM 2011, 18th Annual Conference and Trade Show, Gander, Canada | | |
| 2011 | 7th International Conference on Marine BioInvasions, Barcelona, Spain * delivered by co-author | | |
| 2010 | Aquaculture Canada 2010 and Cold Harvest TM 2010, St. John's, Canada | | |
| 2009 | 30th Annual Pacific Ecology and Evolution Conference, Bamfield, Canada | | |
| 2008 | Coastal Zone Canada 2008 Conference, Vancouver, Canada | | |
| | and network symposia: | | |
| 2019 | • • | | |
| 2019 | 10ème Colloque du département de biologie de l'Université Laval, Quebec City, Canada 9ème Colloque du département de biologie de l'Université Laval, Quebec City, Canada (best talk) | | |
| 2017 | 8ème Colloque du département de biologie de l'Université Laval, Quebec City, Canada | | |
| 2016 | 15ème Québec-Océan Assemblée Générale Annuelle, Rimouski, Canada | | |
| 2016 | Canadian Aquatic Invasive Species Network Annual General Meeting, Windsor, Canada | | |
| 2016 | 7ème Colloque du département de biologie de l'Université Laval, Quebec City, Canada | | |
| 2015 | 14ème Québec-Océan Assemblée Générale Annuelle, Quebec City, Canada | | |
| 2015 | Canadian Aquatic Invasive Species Network Annual General Meeting, Halifax, Canada | | |
| 2015 | 6ème Colloque du département de biologie de l'Université Laval, Quebec City, Canada (best talk | | |
| 2013 | runner-up) | | |
| 2014 | 13ème Québec-Océan Assemblée Générale Annuelle, Rivière-du-Loup, Canada | | |
| 2014 | Canadian Aquatic Invasive Species Network Annual General Meeting, Gatineau, Canada (best | | |
| 2011 | poster runner-up) | | |
| 2014 | 5ème Colloque du département de biologie de l'Université Laval, Quebec City, Canada | | |
| 2013 | 12ème Québec-Océan Assemblée Générale Annuelle, Rivière-du-Loup, Canada | | |
| 2013 | Canadian Aquatic Invasive Species Network Annual General Meeting, Kananaskis, Canada | | |
| 2011 | 4th Annual Biology Graduate Student Symposium, Memorial University of Newfoundland, St. John's, Canada | | |
| 2010 | 3rd Annual Biology Graduate Student Symposium, Memorial University of Newfoundland, St. John's, Canada (people's choice award) | | |
| 2010 | Aldrich Interdisciplinary Conference, Graduate Students' Union, Memorial University of Newfoundland, St. John's, Canada | | |
| 2008 | 7th Multidisciplinary Undergraduate Research Conference, University of British Columbia, | | |
| | Vancouver, Canada (<u>best poster</u>) | | |
| SUPERVISION | N & TEACHING | | |
| Supervision of | Supervision of honours research: | | |

| 2023 | <u>Lauren E. Gover</u> , Honours in Biology, Memorial University of Newfoundland (co-supervised) |
|------|--|
| | Topic: Ontogenic migration and ecological role of sea cucumbers in the Canadian Arctic |
| | *twelve months co-supervision starting in September |
| 2022 | Sheyenne Samantha Samy, Honours in Zoology, Rhodes University (co-supervised) |
| | Topic: Review of bio-invasions in polar waters: Drivers of invasiveness of introduced species |
| | and invasibility of polar ecosystems *eight months co-supervision from February to September |
| 2021 | Emma Lee Goodes, Honours in Marine Biology, Rhodes University (co-supervised) |

| 2020 | Topic: Spatial association of endolithic infestation and barnacle epibionts on mussel shells *three months of co-supervision from August to October Alicea Lubbé, Honours in Marine Biology, Rhodes University (co-supervised) Topic: Review of the relative importance of interference and exploitative competition in marine systems *eight months of co-supervision from March to October |
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| Supervision of l | hired research assistants: |
| 2023 | Andrea Joy Leyte (390 hours); Anuj Jyothykumar (40 hours); Bridget Noreen Duff (40 hours); Kera Rachel Whitten (40 hours) |
| 2022 | Alex Laura Tjaden Day (40 hours); Amy Bernier-Desmarais (160 hours); Emma Lee Goodes (40 hours); Kera Rachel Whitten (40 hours); Lulutho Mancunga (160 hours); Molline Natanah C. Gusha (80 hours); Rochelle Bessinger (40 hours); Siyamthanda Matiwane (40 hours); Sonwabise Maneli (80 hours) |
| 2015 | Émie Audet-Gilbert (40 hours); Jean-Marc Jouve (480 hours); Stéphanie Roy (40 hours) |
| 2014 | Caroline Potvin (480 hours) |
| 2013 | Emma Carroll (160 hours); E. Laurence Forget-Lacoursière (480 hours) |
| 2011 | Laura Chomyshyn (480 hours) |
| Teaching assist | antships and tutorship: |
| 2022 2021 2020 2018 2012 2011 2011 2011 | Tutor, Honours in Zoology & Entomology (ZOO ENT HONS 2022), Rhodes University Tutor, Honours in Zoology & Entomology (ZOO ENT HONS 2021), Rhodes University Tutor, Honours in Zoology & Entomology (ZOO ENT HONS 2020), Rhodes University Teaching Assistant, Biodiversity of Invertebrates (BIO 1011), Université Laval Teaching Assistant, Principles of Biology (BIOL 1002), Memorial University of Newfoundland Teaching Assistant, Biology of Invertebrates (BIOL 2122), Memorial University of Newfoundland Teaching Assistant, Ecology (BIOL 2600), Memorial University of Newfoundland Teaching Assistant, Evolution & Systematics (BIOL 2900), Memorial University of Newfoundland Teaching Assistant, Principles of Biology (BIOL 1001), Memorial University of Newfoundland |
| PROFESSIONA | AL SERVICE |
| Editorial assign | iments: |
| 2022 - Present | Thematic Editor, World Register of Introduced Marine Species (WRiMS) |
| 2019 – Present | Associate Editor, BioInvasions Records (BIR), 4 assignments |
| 2019 – Present | Associate Editor, Aquatic Invasions (AI), 4 assignments |
| 2019 – Present | Associate Editor, Management of Biological Invasions (MBI), 3 assignments |
| Journals that I | peer-reviewed for: (20 completed reviews) |
| 2023 | Journal of Ecology; Aquatic Invasions; PLoS One; BioInvasions Records (×2) |
| 2022 | PLoS One; Estuarine, Coastal and Shelf Science; Journal of Experimental Marine Biology and Ecology |
| 2021 | Aquatic Invasions; Invertebrate Systematics; Journal of Experimental Marine Biology and Ecology; Marine Biology; Marine Environmental Research |
| 2020 | BioInvasions Records; Invertebrate Systematics; Marine Pollution Bulletin |
| 2019 | Marine Ecology Progress Series (×2) |
| 2018 | Thalassas: An International Journal of Marine Science; BioInvasions Records |
| Service and lead | dership: |
| 2023 | External Reviewer, Alien Species Risk Analysis Review Panel (ASRARP) Risk Analysis of Semimytilus patagonicus, South African National Biodiversity Institute (SANBI), Pretoria, South Africa |
| 2023 | Organizer, Artisanal Techniques to Process Sea Cucumbers Workshop, Memorial University of Newfoundland, Sanikiluaq, Canada |
| 2023 | Facilitator, Marine Biology School Program at Paatsaali High School, Memorial University of Newfoundland, Sanikiluaq, Canada |

| 2023 | Oral Presentation <u>Judge</u> , 2 nd Annual Scientific Endeavours in Academia Conference, Faculty of | |
|---|--|--|
| 2022 | Science, Memorial University of Newfoundland, St. John's, Canada | |
| 2023 | Special Awards <u>Judge</u> (Ocean Sciences Centre Science Fair Award), Eastern Newfoundland | |
| 2022 | Regional Science Fair, St. John's, Canada | |
| 2023 | Invited Reviewer, Canadian Science Advisory Secretariat (CSAS) Regional Peer Review Meeting (Assessment of NAFO Subdivision 3Ps Sea Cucumber), Fisheries and Oceans Canada, St. John's, Canada | |
| 2021 | Science Fair Judge, Eskom Expo for Young Scientists, South Africa | |
| 2019 | Course Co-developer, Universidad Austral de Chile, <i>Invasion Ecology</i> (GCIE 500) | |
| 2018 | Student Co-organizer, 4th World Conference on Marine Biodiversity, Montreal, Canada | |
| 2017 | Volunteer, Arctic Change 2017, Quebec City, Canada | |
| 2017 | Passamaquoddy Bay BioBlitz Participant and Visiting Taxonomist (1-month period), Atlantic | |
| | Reference Centre (ARC), St. Andrew's, Canada | |
| 2017 | Student Researcher, Canada C3 Science Program | |
| 2015 | Student Co-organizer, Aquatic Invasive Species Knowledge Transfer Workshop, Iqaluit, Canada | |
| 2015 | Student Co-organizer, 44th Annual Benthic Ecology Meeting, Quebec City, Canada | |
| 2012 | Science Fair Judge, Killarney Secondary School, Vancouver, Canada | |
| 2011 | Special Awards Judge (Ocean Sciences Centre Science Fair Award), Eastern Newfoundland | |
| | Regional Science Fair, St. John's, Canada | |
| 2009 | Volunteer, Pacific North Coast Integrated Management Area Forum, Richmond, Canada | |
| 2008 - 2010 | Data Contributor (no. 66), SeaLifeBase https://www.sealifebase.se/ | |
| 2007 & 2008 | Mentor to Junior Undergraduate Students, Tri-mentoring Program, University of British Columbia | |
| 2007 | Volunteer, South Okanagan National Park Reserve Network, Penticton, Canada | |
| Short-term fiel | d assistance and contributions: | |
| | | |
| 2023 | Sea cucumber, mussel, and water sample collections from Nunavut; Memorial University of Newfoundland (<i>Méliane Deshaies, Yuthika Jalim</i>) | |
| 2022 - 2023 | Echinoderm collections from Newfoundland; Canadian BioGenome Project (Samantha Jones) | |
| 2022 – 2023 2022 | Invertebrate collections from Namaqualand; Iziko Museum (Melissa Boonzaaier-Davids) | |
| 2022 | Mussel collections across South Arica for laboratory experiments; Universidade do Algarve and | |
| 2022 | Rhodes University (<i>Lorenzo Cozzolino</i> , <i>Gerardo I.</i> Zardi, <i>Katy R. Nicastro</i>) | |
| 2020 | Invertebrate collections from rocky shores of Cape Agulhas; Rhodes University (Adam J. Wyness) | |
| 2019 & 2020 | Mussel collections and installation of experimental cages on rocky shores across South Africa; | |
| 2017 @ 2020 | Rhodes University (Cassandra Barker, Mauricio Orostica Vega) | |
| 2019 | Seaweed and sea urchin collections from rocky shores across South Africa; Rhodes University and | |
| | South African Institute for Aquatic Biodiversity (Molline N. C. Gusha, Suzanne Redelinghuys) | |
| 2019 | Installation of larval traps; South African Institute for Aquatic Biodiversity (Seshnee Reddy) | |
| 2018 | Seaweed collections from the St. Lawrence River for experiments; Université Laval (Manon Picard) | |
| 2017 | Ascidians collections from New Brunswick; Universidade Federal do Paraná (Rosana M. da Rocha) | |
| 2016 | Seaweeds collections from the rocky shores of Nova Scotia; Université Laval (Ladd E. Johnson) | |
| 2013 | Taxonomic identification of fouling species at Lunenburg; Université Laval (<i>Heather L. Hawk</i>) | |
| 2012 - 2015 | Boat operator in the St. Lawrence River; Université Laval (Nathan Haag, Filippo Ferrario) | |
| 2012 | Field estimates of current velocities in Prince Edward Island; McGill University (Brian Leung) | |
| 2007 | Collections of deer mice in the South Okanagan; University of British Columbia (Jack Teng) | |
| 2006 | Field surveys for eelgrass in Semiahmoo Bay; University of British Columbia (Ramona C. de Graaf) | |
| | | |
| OTHER WORK EXPERIENCE (non-academic and non-teaching positions) | | |
| —————————————————————————————————————— | | |
| 2017 & 2019 | Proctor (surveillance d'examen, part-time), Département de biologie, Université Laval | |
| 2012 - 2014 | Intern (stagiaire), Fisheries and Oceans Canada (DFO) *this position also facilitated doctoral studies | |
| 2011 - 2012 | Waste Audit Co-ordinator (part-time), Sustainability Office, Memorial University of Newfoundland | |
| 2009 | Administrative Assistant (full-time), Northwest Wildlife Preservation Society (NWPS) | |
| 2008 - 2009 | Intern (part-time), Ocean Wise and River Works (conservation programs), Vancouver Aquarium | |
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| 2023 | Workplace Violence Prevention for Supervisors |
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| 2022 | Workplace Hazardous Materials Information System (WHMIS) Course *also in 2009, 2014, 2018 |
| 2022 | Laboratory Safety Course *2009 |
| 2021 | Strengthening Postgraduate Supervision |
| 2021 | Environmental variables: How to obtain and process them with R Course, Transmitting Science |
| 2021 | Obtaining and cleaning species occurrence data with R Course, Transmitting Science |
| 2018 | Mapping in R: Basic and Advance Tools Workshop, Québec-Océan |
| 2017 | Taxonomy and Biology of Tunicate Course, Smithsonian Tropical Research Institute |
| 2017 | Information Security Awareness <u>Training</u> (ITS100), Smithsonian Institution |
| 2017 | DAN Emergency Oxygen Provider for Scuba Diving Injuries Course (2526111) *2014 |
| 2017 | Wilderness and Remote First Aid <u>Training</u> |
| 2016 | PADI Open Water Diver <u>Certification</u> (1601AP5650) |
| 2014 | DAN Basic Life Support: CPR and First Aid Course |
| 2013 | Small Vessel Operator Proficiency (SVOP) and Small Non-pleasure Vessel Basic Safety |
| | Certifications, Canadian Coast Guard (MAR2013073 & MAR2013074) |
| 2013 | Theoretical and Practical Trailer Towing <u>Training</u> |
| 2009 | Marine Basic and Standard First Aid Course (11R3QHH & 11QMF44) |
| 2009 – Present | Driver's Licence, Newfoundland and Labrador (M850123074: 2022–2028), Québec (M000523018504: |
| | 2014–2017 & 2017–2025), British Columbia (8065434: 2009–2014 & 2022–2027) |

PROFESSIONAL MEMBERSHIPS

| 2019 – Present | Associate Member, International Association for Open Knowledge on Invasive Alien Species |
|----------------|--|
| 2013 - 2019 | Student Member, Québec-Océan |
| 2012 - 2015 | Highly Qualified Personnel (HQP), NSERC Canadian Aquatic Invasive Species Network II |

CURRENT & PAST SUPERVISORS

Annie Mercier, Professor, Department of Ocean Sciences, Memorial University of Newfoundland, St. John's, Newfoundland and Labrador, Canada; amercier@mun.ca

P. William Froneman, Professor, Department of Biological Sciences, University of Cape Town, Cape Town, Western Cape, South Africa; w.froneman@ru.ac.za *previously at Rhodes University

Christopher D. McQuaid, Professor Emeritus and Distinguished Fellow, Department of Zoology and Entomology, Rhodes University, Grahamstown, Eastern Cape, South Africa; c.mcquaid@ru.ac.za

Ladd E. Johnson, Professor (*Professeur titulaire*), Département de biologie, Université Laval, Quebec City, Quebec, Canada; ladd.johnson@bio.ulaval.ca

Christopher W. McKindsey, Research Scientist (*Chercheur*), Fisheries and Oceans Canada (DFO), Institut Maurice-Lamontagne, Mont-Joli, Quebec, Canada; chris.mckindsey@dfo-mpo.gc.ca *also associated with UQAR