# REBEKAH A. OOMEN

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### **RESEARCH INTERESTS**

Organismal and population responses to environmental change; genomic basis of plasticity and adaptation; reaction norm evolution; divergence with gene flow; sexual selection; structural genomic variation; marine ecology; behaviour; bioinformatics; bioacoustics; conservation; artificial intelligence; sound art

### **EMPLOYMENT**

2023-	Assistant Professor, Department of Biological Sciences, University of New Brunswick Saint John
2023-	Researcher, Tjärnö Marine Lab, Department of Marine Sciences, University of Gothenburg
2023-	Researcher, Centre for Ecological & Evolutionary Synthesis and the Natural History Museum, University of Oslo
2022-2023	NSERC Postdoctoral Research Fellow, Centre for Coastal Research, University of Agder
2022-2023	Researcher & Adviser, Centre for Ecological & Evolutionary Synthesis and the Natural History Museum, University of Oslo
2021-	Affiliate Researcher, Centre for Artificial Intelligence Research, University of Agder
2020-	Researcher II, Centre for Coastal Research, University of Agder
2019-2022	James S. McDonnell Foundation Postdoctoral Research Fellow in Understanding Dynamic and Multi-scale Systems, Centre for Ecological & Evolutionary Synthesis, University of Oslo
2019	Researcher, Norwegian Sequencing Centre, University of Oslo

### EDUCATION

2013-2019	PhD, Ecology & Evolution, Dalhousie University (Supervisor: Dr. Jeff Hutchings)
2011-2012	MSc, Ecology & Evolution, Dalhousie University (Supervisor: Dr. Jeff Hutchings)
2006-2010	BScFS (Honours), Forensic Science, Trent University (Supervisor: Dr. Chris Kyle)

#### SELECT AWARDS & HONOURS

2023	Early Career Award, Canadian Society for Ecology & Evolution (national; 1,700 CAD)
2023	Crafoord Grant, The Royal Swedish Academy of Sciences & Crafoord Fund (300,000 SEK)
2022	Communication of Science Prize, Institute of Biosciences, University of Oslo (10,000 NOK)
2023-2026	Swedish Research Council (VR) Starting Grant (international; 4 million SEK)
2021-2023	BAR International Artist-in-Residence, Pikene på Broen, Kirkenes, Norway
2020	Top Dissertation in the Department of Biology in 2019, Dalhousie University
2019-2022	James S. McDonnell Foundation Postdoctoral Fellowship (international; 200,000 USD)
2018	Doctoral Research Award, Canadian Society for Ecology & Evolution (national; 500 CAD)

#### PUBLICATIONS

PEER REVIEWED (N<sub>published</sub> = 26, h-index = 14, citations > 1000 [Google Scholar]) <sup>†</sup>indicates mentee co-author

Preprints / in review / in revision

- Oomen, RA, H Knutsen, EM Olsen, S Jentoft, NC Stenseth, & JA Hutchings [2022; revision requested]. Comparison of *de novo* and reference genome-based transcriptome assembly pipelines for differential expression analysis of RNA sequencing data. *BMC Research Notes* [ID: RESN-S-18-01771]. Preprint: <u>https://doi.org/10.1101/2022.08.20.504634</u>
- Oomen, RA, E Juliussen<sup>†</sup>, EM Olsen, H Knutsen, S Jentoft, & JA Hutchings [2021; second revision requested]. Cryptic microgeographic variation in responses of larval Atlantic cod to warming. *Evolutionary Applications* [ID: EVA-2021-004-OA]. Preprint: <u>https://doi.org/10.1101/2021.02.03.429645</u>

Published / accepted

- 26. Mc Cartney, AM, G Formenti, A Mouton, D De Panis, LS Marins, HG Leitão, …, RA Oomen, …, & M Pippel (164 authors) [accepted]. The European Reference Genome Atlas: piloting a decentralised approach to equitable biodiversity genomics. *npj Biodiversity.* Preprint: <u>https://doi.org/10.1101/2023.09.25.559365</u>
- 25. Böhne, A\*, R Fernández\*, J Leonard\*, AM Mc Cartney\*, S McTaggart\*, J Melo-Ferreira\*, R Monteiro\*, RA Oomen\*, OV Pettersson\*, TH Struck\* [2024; accepted]. Contextualising samples: Supporting reference genomes for European biodiversity through sample and sample data collection. *npj Biodiversity*. Peer-reviewed preprint:<u>10.1101/2023.06.28.546652</u> <u>PCI Genomics Recommendation</u> \*contributed equally
- 24. Norderhaug, KJ, H Knutsen, K Filbee-Dexter, M Sodeland, PE Jorde, T Wernberg, **RA Oomen**, & E Moland. 2024. The International Union for Conservation of Nature Red List does not account for intraspecific diversity. *ICES Journal of Marine Science*, fsae039. doi:<u>10.1093/icesjms/fsae039</u>
- 23. Kao, AB, AK Hund, FP Santos, J-G Young, D Bhat, J Garland, **RA Oomen**, & HF McCreery. 2023. Opposing responses to scarcity emerge from functionally unique sociality drivers. *The American Naturalist*, 202:302-321. doi:10.1086/725426
- 22. Theissinger K, G Formenti, C Fernandes, ..., **RA Oomen**<sup>\*</sup>, ..., J Höglund (25 authors + European Reference Genome Atlas [ERGA] Consortium). 2023. How genomics can help biodiversity conservation. *Trends in Genetics*, 39:545-559. doi:10.1016/j.tig.2023.01.005 \*middle 21 authors contributed equally
- 21. **Oomen, RA**, H Knutsen, EM Olsen, S Jentoft, NC Stenseth, & JA Hutchings. 2022. Warming accelerates the onset of the molecular stress response and increases mortality of larval Atlantic cod. *Integrative and Comparative Biology*, 62:1784-1801. doi:<u>10.1093/icb/icac145</u>
- 20. **Oomen, RA** & JA Hutchings. 2022. Genomic reaction norms inform predictions of plastic and adaptive responses to climate change. *Journal of Animal Ecology*, 91:1073-1087. doi:<u>10.1111/1365-2656.13707</u> *Invited Faculty Opinions Recommended Sidnie Manton Award Finalist*
- 19. Rasmussen JH<sup>†</sup>, M Moyano, L Fuiman, & **RA Oomen**. 2022. FishSizer: Software solution for efficiently measuring larval fish size. *Ecology & Evolution*, 12:e8672. doi:<u>10.1002/ece3.8672</u>
- Goodwin M\*, KT Halvorsen\*, L Jiao\*, KM Knausgård\*, AH Martin\*, M Moyano\*, **RA Oomen**\*<sup>‡</sup>, JH Rasmussen\*<sup>†</sup>, TK Sørdalen\*, & SH Thorbjørnsen\*. 2022. Unlocking the potential of deep learning for marine ecology: overview, applications, and outlook. *ICES Journal of Marine Science*, fsab255. doi:<u>10.1093/icesjms/fsab255</u> \*contributed equally <sup>‡</sup>corresponding
- 17. Formenti, G, K Theissinger, C Fernandes, ..., **RA Oomen**\*, ..., M Bálint (25 authors + European Reference Genome Atlas [ERGA] Consortium). 2022. The era of reference genomes in conservation genomics. *Trends in Ecology & Evolution*, 37:197-202. doi:<u>10.1016/j.tree.2021.11.008</u> \**middle 21 authors contributed equally*

- Wolf, JF<sup>†</sup>, L MacKay<sup>\*</sup>, SE Haworth<sup>\*</sup>, ML Cossette<sup>\*</sup>, MN Dedato<sup>\*</sup>, KB Young<sup>\*</sup>, Cl Elliott<sup>\*</sup>, & RA
   Oomen. 2021. Preprinting is positively associated with early career researcher status in ecology and evolution. *Ecology & Evolution*, 11:13624-13632. doi:10.1002/ece3.8106 \*contributed equally
- Raatikainen, KJ, J Purhonen, T Pohjanmies, M Peura, ..., RA Oomen\*, ..., J Ziemacki\* (31 authors).
   2021. Pathways towards a sustainable future envisioned by early-career conservation researchers. Conservation Science and Practice, 3:e493. doi:10.1111/csp2.493 \*last 24 authors contributed equally
- Deininger, A, AH Martin, JC Pardo, PR Berg\*, J Bhardwaj\*, D Catarino\*, A Fernandez-Chacon\*, K Martinez-Swatson\*, K Ono\*, **RA Oomen**\*, M Sodeland\*, TK Sørdalen\*, A-E Synnes\*, SH Thorbjørnsen\*, & J Thormar\*. 2021. Coastal research seen through an early career lens – a perspective on barriers to interdisciplinarity in Norway. *Frontiers in Marine Science*, 8:634999. doi:<u>10.3389/fmars.2021.634999</u> \*contributed equally
- Oomen, RA & JA Hutchings. "Evolution of Reaction Norms." In Oxford Bibliographies in Evolutionary Biology. Ed. D Futuyma. New York: Oxford University Press, October 28, 2020. doi:<u>10.1093/OBO/9780199941728-0130</u> Commission
- 12. **Oomen, RA**, A Kuparinen, & JA Hutchings. 2020. Consequences of single-locus and tightly linked genomic architectures for evolutionary responses to environmental change. *Journal of Heredity*, 111:319-332. doi:10.1093/jhered/esaa020 <u>Editor's Choice</u> & <u>High-impact Article (Most Read)</u>
- 11. Mérot, C\*, **RA Oomen**\*, A Tigano\*, & M Wellenreuther\*. 2020. A roadmap for understanding the evolutionary significance of structural genomic variation. *Trends in Ecology & Evolution*, 35:561-572. doi:<u>10.1016/j.tree.2020.03.002</u> \*contributed equally <u>Featured Article</u>
- Roney, NE, **RA Oomen**, H Knutsen, EM Olsen, & JA Hutchings. 2018. Fine-scale population differences in Atlantic cod reproductive success: a potential mechanism for ecological speciation in a marine fish. *Ecology & Evolution*, 8:11634-11644. doi:<u>10.1002/ece3.4615</u>
- 9. Roney, NE, **RA Oomen**, H Knutsen, EM Olsen, & JA Hutchings. 2017. Temporal variability in offspring quality and individual reproductive output in a broadcast-spawning marine fish. *ICES Journal of Marine Science*, 75:1353-1361. doi:10.1093/icesjms/fsx232
- 8. **Oomen, RA** & JA Hutchings. 2017. Transcriptomic responses to environmental change in fishes: insights from RNA sequencing. *FACETS*, 2:610–641. doi:<u>10.1139/facets-2017-0015</u>
- Oomen, RA & JA Hutchings. 2016. Genetic variation in plasticity of life-history traits between Atlantic cod (*Gadus morhua*) populations exposed to contrasting thermal regimes. *Canadian Journal of Zoology*, 94:257-264. doi:10.1139/cjz-2015-0186
- Kuparinen, A, NE Roney, RA Oomen, JA Hutchings, & EM Olsen. 2015. Small-scale life history variability suggests potential for spatial mismatches in Atlantic cod management units. *ICES Journal of Marine Science*, 73:286-292. doi:<u>10.1093/icesjms/fsv181</u>
- 5. **Oomen, RA** & JA Hutchings. 2015. Genetic variability in reaction norms in fishes. *Environmental Reviews*, 23:353-366. doi:10.1139/er-2014-0077
- 4. **Oomen, RA** & JA Hutchings. 2015. Variation in spawning time promotes genetic variability in population responses to environmental change in a marine fish. *Conservation Physiology*, 3:1-12. doi:<u>10.1093/conphys/cov027</u>
- 3. **Oomen, RA**, RM Gillett, & CJ Kyle. 2013. Comparison of 454 pyrosequencing methods for characterizing the major histocompatibility complex of nonmodel species and the advantages of ultra deep coverage. *Molecular Ecology Resources*, 13:103-116. doi:10.1111/1755-0998.12027
- 2. **Oomen, RA**, MW Reudink, JJ Nocera, CM Somers, MC Green, & CJ Kyle. 2011. Mitochondrial evidence for panmixia despite perceived barriers to gene flow in a widely distributed waterbird. *Journal of Heredity*, 102:584-592. doi:<u>10.1093/jhered/esr055</u> *Cover article*

 Reudink, MW, CJ Kyle, JJ Nocera, **RA Oomen**, MC Green, & CM Somers. 2011. Panmixia on a continental scale in a widely distributed colonial waterbird. *Biological Journal of the Linnean Society*, 102:583-592. doi:<u>10.1111/j.1095-8312.2010.01608.x</u>

#### POLICIES & TECHNICAL REPORTS

- de Guttry, C, Brown, T, Harrison, P, Muffato, M, A Leonard, J, Pauperio, J, Reichel, K, Juty, N, Mouton, A, Paez, S, **Oomen, RA**, Stauton, C, Mc Cartney, A, Buzan, E, Bortoluzzi, C, & Waterhouse, R. (2023). ERGA Open Data Policy (v0.0.5 - 2023.11.21) (v0.0.5 - 20231121). Zenodo. <u>https://doi.org/10.5281/zenodo.10785625</u>
- 3. Struck, TH; **Oomen, RA**; Marcussen, T\*. (2023). Species prioritisation for genome sequencing D5.1 EU Horizon Europe BGE Project, Grant Agreement No 101059492. 14. University of Oslo
- 2. Struck, TH; **Oomen, RA**; Marcussen, T\*. (2023). Identification of gaps in available reference genomes for European biodiversity and development of species prioritisation guidelines for genome sequencing MS\_5.1 EU Horizon Europe BGE Project, Grant Agreement No 101059492. 54. University of Oslo
- 1. Struck, TH; **Oomen, RA**; Marcussen, T\*. (2023). Prioritisation guidelines for the wider community D5.7 EU Horizon Europe BGE Project, Grant Agreement No 101059492. 34. University of Oslo

#### NON-PEER REVIEWED

- da Cruz Albino R, MA Brimble, C Zdenek, K Vandenbroeck, S Masud, X Zhang, M Cosentino, A Gupta, R Abdul-Ghani, C Gerarduzzi, P Jackson, **RA Oomen**, B Servais, A Manjunatha, N Bulthuis, C Romero-Molina, D Teng, A Kosanic, D de Angeli Dutra, D Alekkou, AM Venturini, E Virguez, & AE Obasa. 2024. Preventing bad behaviour in academia. *Science*, 385(6704):22-24. <u>https://www.science.org/doi/10.1126/science.adr0734</u>
- Lien, A, MØ Nygård, AT Laugen, A Lie, A Slettan, BS Johansen, ..., RA Oomen, ..., YA Olsen [33 authors]. Utbygging vil ødelegge for biologisk mangfold på campus Gimlemoen ('Development will destroy biodiversity on campus Gimlemoen'). *Fædrelandsvennen* (regional newspaper), 26/06/2023. <u>https://www.fvn.no/mening/debattinnlegg/i/O8X2zO/utbygging-vil-oedelegge-for-biologisk-mangfoldpaa-campus-gimlemoen</u>
- Oomen, RA, H Knutsen, E Moland, EM Olsen, JA Knutsen, L Bernatchez, NC Stenseth, & P Hart. 2022. Nothing so boundless, nothing so patient: Obituary for Professor Jeffrey Alexander Hutchings (1958-2022). *Fish and Fisheries*, 23:519-521. doi:10.1111/faf.12661
- 4. **Oomen, RA**, SH Thorbjørnsen, M Goodwin, & NC Stenseth. Sørlandstorsken bruker antakelig sin egen dialekt ('South coast cod probably have their own dialect'). *Agderposten* (Regional newspaper), 05/10/2020. <u>https://www.agderposten.no/meninger/torsken-var-bruker-antakelig-sorlandsdialekt/</u>
- 3. **Oomen, RA**. What if by overestimating the complexity of the genomic basis of a trait, we're underestimating the complexity of its evolutionary dynamics? *American Genetic Association Blog*, 29/07/2020. <u>http://blog.theaga.org/what-if-by-overestimating-the-complexity-of-the-genomic-basis-of-a-trait-were-underestimating-the-complexity-of-its-evolutionary-dynamics/</u>
- Baalsrud, HT\*, EM Olsen\*, RA Oomen\*, & NC Stenseth\*. Torskekrisen i Oslofjorden skyldes mer enn bare klimaendringer ('The cod crisis in the Oslo fjord is due to more than just climate change'). Aftenposten (Norway's largest newspaper), 12/11/2019. <u>https://www.aftenposten.no/viten/i/pLxOqW/torskekrisen-i-oslofjorden-skyldes-mer-enn-bareklimaendringer</u> \*authors listed alphabetically – Oomen led the initiative
- 1. **Oomen, RA**. Decoding how fishes respond to environmental change. *Medium*, 16/08/2017. <u>https://medium.com/facets/decoding-how-fishes-respond-to-environmental-change-ec7dbd02b8a3</u>

#### **INVITED TALKS**

#### INVITED PLENARIES & KEYNOTES

- 2023 Early Career Award, Canadian Society for Ecology & Evolution meeting, Winnipeg, MB, Canada
- 2022 JSMF-SFI Postdocs in Complexity Conference, Santa Fe Institute, NM, US (Career talk)
- 2022 International Symposium on Reference Genomes for Biodiversity, University of Cologne, Germany, (<u>Keynote</u>)
- 2022 LUOVA Spring Symposium, University of Helsinki, Finland (Keynote)
- 2018 Oslo Symposium for Genomics, Ecology, and Evolution, Oslo, Norway
- 2018 PhD Award, Canadian Society for Ecology & Evolution meeting, Guelph, ON, Canada

#### INVITED SYMPOSIUM PRESENTATIONS

- 2024 'Predicting evolutionary responses in a changing world', Evolution, Montreal, QC, Canada [to be delivered]
- 2024 'A tribute to Dr. Jeffrey Hutchings', Society of Canadian Aquatic Sciences, Fredericton, NB, Canada
- 2022 'Det Gode Liv // The Sweetness of Living', Barents Spektakel, Kirkenes, Norway [panel]
- 2020 'Fisheries genomics: illuminating the past, present, and future of exploited fish populations', American Fisheries Society meeting, Columbus, OH, US (online due to COVID-19)
- 2020 'The expanding role of "omics" in fisheries management: past, present, and future applications', American Fisheries Society meeting, Columbus, OH, US (online due to COVID-19)
- 2019 'Prediction in the Anthropocene: combining theory and practice', Canadian Society for Ecology & Evolution meeting, Fredericton, NB, Canada
- 2019 'Celebrating Nils Chr. Stenseth's 50 years in science', The Norwegian Academy of Sciences and Letters, Oslo, Norway
- 2018 'Evolutionary Conservation', Canadian Society for Ecology & Evolution meeting, Guelph, ON, Canada
- 2018 'Human impacts on aquatic species and ecosystems', European Congress of Conservation Biology, Jyväskylä, Finland
- 2017 'Bridging the eco-evolutionary gap', Association for the Sciences of Limnology and Oceanography meeting, Honolulu, HI, US
- 2008 Ontario Genomics Institute Summer Fellowship Symposium, The MaRS Centre, Toronto, ON, Canada

#### OTHER INVITED TALKS

- 2024 'Genomic Forecasting' Graduate Seminar Q&A, University of Vermont, Burlington, VT, US
- 2024 SKREI Research Centre (National Cod Museum), Svolvær, Norway
- 2024 Marine Colloquium Seminar, University of Gothenburg, Tjärnö, Sweden
- 2024 Departmental Seminar, GEOMAR Helmholtz Centre for Ocean Research, Kiel, Germany
- 2023 Departmental Seminar, Dalhousie University, Halifax, NS, Canada
- 2023 Baltic Sea Festival, *Tekniska Museum, Stockholm, Sweden*

- 2023 True Northern Arts Festival, Festspillene i Nord-Norge, Harstad, Norway
- 2023 ReCod Meeting, Ar, Sweden
- 2023 Webinar to the SKREI Research Centre (National Cod Museum), Museum Nord, Norway
- 2023 'In Cod We Trust' Transborder Café introduction, Barents Spektakel, Kirkenes, Norway
- 2023 'Dialects of the Deep' Exhibition, Barents Spektakel, Kirkenes, Norway
- 2022 Chewing The Tundra, *Kunsthalle Exnergasse, Vienna, Austria [panel]*
- 2022 Open Meeting About the Fish that Disappears: 'Torsken i Skagerrak er borte. Hvorfor?', Langesund Bad, Norway
- 2022 Passion For Ocean Festival, *Arendal, Norway*
- 2022 Only Connect Festival of Sound Public Lecture, MUNCH Museum, Oslo, Norway
- 2022 Departmental Seminar, *Biology Department, University of New Brunswick Saint John, Canada*
- 2021 Young Researchers Night, Teateret, Kristiansand, Norway
- 2021 Ultima Oslo Contemporary Music Festival, Sentralen, Oslo, Norway [panel]
- 2021 Galleri ARTendal, Arendal, Norway
- 2021 Arendalsuka, Arendal, Norway
- 2021 Guest lecture in Evolutionary Biology, University of Agder, Kristiansand, Norway
- 2020 Young Researchers Night, Teateret, Kristiansand, Norway
- 2020 Guest lecture in Evolution, University of Hawai'i, Hilo, HI, US
- 2020 Departmental Seminar, Department of Zoology, Punjabi University, Patiala, India
- 2020 JSMF-SFI Postdocs in Complexity Virtual Meeting II, Santa Fe Institute, Santa Fe, NM, US
- 2020 Guest lecture in Evolutionary Biology, University of Agder, Kristiansand, Norway
- 2019 Scientific Advisory Board Meeting, Centre for Coastal Research, Flødevigen Research Station, His, Norway
- 2018 Departmental Seminar, Dalhousie University, Halifax, NS, Canada
- 2013 Seminar, Flødevigen Research Station, His, Norway
- 2013 Guest lecture in Ecology & Evolution of Fishes, Dalhousie University, Halifax, NS, Canada
- 2008 Guest lecture in Introduction to Biology, York University, Toronto, ON, Canada

# CONTRIBUTED TALKS

#### CONFERENCE PRESENTATIONS

- 2023 Norwegian Biodiversity & Genomics Conference, Oslo, Norway
- 2022 British Ecological Society Climate Change Genomics Workshop, online
- 2021 Canadian Society for Ecology & Evolution meeting #CSEE2021Tweets
- 2021 Temporal Genomic Twitter Symposium 2021 #TempGenTweets2021
- 2020 Genomic Forecasting Symposium 2020, online due to COVID-19
- 2020 Society for Molecular Biology & Evolution meeting, Québec City, QC, Canada (cancelled due to COVID-19)
- 2020 Evolution in Sweden conference, Tjärnö, Sweden
- 2019 Society for Molecular Biology & Evolution meeting, Manchester, UK

- 2019 International Conference on Fish Telemetry, Arendal, Norway [poster]
- 2019 Society for Molecular Biology & Evolution Speciation Genomics Workshop, Tjärnö, Sweden
- 2018 JSMF-SFI Postdocs in Complexity Conference, Santa Fe, NM, USA
- 2018 Biology Graduate Student Symposium, Halifax, NS, Canada
- 2018 Biology Graduate Student Symposium, Halifax, NS, Canada [poster] \*best poster
- 2017 Centre for Ecological & Evolutionary Synthesis Student Conference, Oslo, Norway \*best talk
- 2017 Canadian Society for Ecology & Evolution meeting, Victoria, BC, Canada
- 2017 Canadian Society for Ecology & Evolution meeting, Victoria, BC, Canada [poster]
- 2016 Centre for Ecological & Evolutionary Synthesis Student Conference, Oslo, Norway
- 2016 Canadian Conference For Fisheries Research, St. John's, NF, Canada
- 2015 Centre for Ecological & Evolutionary Synthesis Student Conference, Oslo, Norway
- 2015 European Marine Biology Symposium. Helgoland, Germany
- 2015 Canadian Conference For Fisheries Research, Ottawa, ON, Canada
- 2014 Centre for Ecological & Evolutionary Synthesis Student Conference, Oslo, Norway
- 2013 Centre for Ecological & Evolutionary Synthesis Student Conference, Oslo, Norway
- 2012 Evolution 2012, Ottawa, ON, Canada
- 2012 Biology Graduate Student Symposium. Halifax, NS, Canada
- 2011 Canadian Society for Ecology & Evolution meeting, Banff, AB, Canada [poster]
- 2011 Biology Graduate Student Symposium, Halifax, NS, Canada
- 2010 Canadian Society for Ecology & Evolution meeting, Québec City, QC, Canada
- 2008 Ontario Genomics Institute Summer Fellowship Symposium, The MaRS Centre, Toronto, ON

### OTHER CONTRIBUTED TALKS

- 2023 Centre for Marine Evolutionary Biology Spring Assembly, online
- 2022 Centre for Coastal Research Annual Meeting, Thon Hotel Norge, Kristiansand, Norway
- 2021 Centre for Coastal Research Annual Meeting, Caledonien Hotel, Kristiansand, Norway
- 2019 Friday Informal Seminar Hour, Dalhousie University, Halifax, NS
- 2019 Lunch Seminar, University of Oslo, Oslo, Norway
- 2016 Friday Informal Seminar Hour, Dalhousie University, Halifax, NS
- 2016 Lunch Seminar, Flødevigen Research Station, His, Norway
- 2014 Lunch Seminar, Flødevigen Research Station, His, Norway
- 2013 Friday Informal Seminar Hour, Dalhousie University, Halifax, NS

# FUNDING

Personal funding total = 3.8 million CAD / 26.4 million NOK

RESEARCH (Funding towards own research programme = 3.5 million CAD / 24.4 million NOK)

2024-2029 Natural Sciences and Engineering Research Council of Canada Discovery Grant [*The genomic basis of adaptation with gene flow*] (PI; 272,500 CAD)

2024-2026	New Brunswick Innovation Foundation Research Assistantship Initiative [ <i>The genomic basis of migration timing in Atlantic bluefin tuna</i> ] (PI; 45k CAD)
2024	Research New Brunswick (Research Partnership matching funds to CFI-JELF)[Title: <i>Ecology and Conservation of Endangered Species in Coastal and Marine Systems</i> ] (Co-Investigator with Kurt Samways & Kim Davies; 50k CAD total, 50k to R. Oomen)
2023	Canadian Foundation for Innovation John R. Evans Leaders Fund [ <i>Ecology and Conservation of Endangered Species in Coastal and Marine Systems</i> ] (Co-Investigator with Kurt Samways & Kim Davies; 150k CAD total, 75k to R. Oomen)
2023	New Brunswick Innovation Foundation (CFI-JELF Matching Funds) [ <i>Ecology and Conserva-</i> <i>tion of Endangered Species in Coastal and Marine Systems</i> ] (Co-Investigator with Kurt Samways & Kim Davies; 150k CAD, 75k to R. Oomen)
2023	University of New Brunswick Saint John Student Work Study Program Grant (PI; 750 CAD)
2023	New Brunswick Innovation Foundation Talent Recruitment Fund (PI; 55k CAD)
2023	University of New Brunswick Start-up Funds (PI; 15k CAD)
2023	The Royal Swedish Academy of Sciences & Anna-Greta and Holger Crafoord's Fund Grant (PI; 300,000 SEK)
2023-2027	European Research Council (ERC) Advanced Grant [ <i>FishLEGs</i> ] (Partner [PI: Craig Primmer, U. Helsinki]; 2.5 million EUR total, 10k EUR to R. Oomen)
2023-2026	Swedish Research Council (VR) Starting Grant [CODTYPES] (PI; 4 million SEK)
2022-2026	Horizon Europe [ <i>Biodiversity Genomics Europ</i> e consortium; Topic HE-CL6-2021-BIODIV-01-01] (Lead from U. Oslo [Partner]; 21M EUR total; 451k EUR to R. Oomen)
2022	James S. McDonnell Foundation Micro Working Group Grant [CodNet] (PI; 9,024 USD)
2022-2023	Natural Sciences and Engineering Research Council of Canada (NSERC) Postdoctoral Fellowship (PI; 90,000 CAD)
2020	University of Agder Research Topic Application Training Position (PI; ~3 million NOK)
2020	Centre for Coastal Research Internal Research Funds Competition (PI; 50,000 NOK)
2019-2022	James S. McDonnell Foundation 21 <sup>st</sup> Century Postdoctoral Fellowship in Understanding Dynamic and Multi-scale Systems [ <i>The spatial scale, molecular basis, and demographic consequences of variable responses to environmental change</i> ] (PI; 200,000 USD)
2019-2022	Norwegian Research Council MARINFORSK Project Grant [ <i>CodSize</i> , No. 294926] (Partner and coauthor [PI: Esben Olsen, IMR]; 8.7 million NOK total, 1.5 million NOK to U. Oslo)
2019	American Genetic Association Evolutionary, Ecological, or Conservation Genomics Research Award (PI; 8,360 USD)
2019	Centre for Coastal Research Internal Research Funds Competition (PI; 100,000 NOK)
2015	Prediction and Observation of the Marine Environment Mobility Grant (PI; 54,000 NOK)
2014-2016	Norwegian Research Council HAVKYST Project Grant [ <i>Genetic variability in population responses of Atlantic cod to environmental change</i> ] (Named PhD student [PI: Jeff Hutch-ings]; 2.1 million NOK)
2014	Research Council of Norway Leiv Eiriksson Mobility Grant (PI; 365,000 NOK)
2013	Michael Smith Foreign Study Supplement (6000 CAD)
2010	NSERC Undergraduate Student Research Award (4,500 CAD)
2009	NSERC Undergraduate Student Research Award (4,500 CAD)

- 2009 Northern Scientific Training Grants Program Award (PI; 2,500 CAD)
- 2008 Ontario Genomics Institute Industry Research Fellowship Award (provincial; 1000 CAD)

#### TRAVEL & NETWORKING

(Total awarded = 17k CAD / 105k NOK)

(Total awarded = 95k CAD / 592k NOK)

- 2023 UiO:Life Science Event Support Grant, University of Oslo (Lead; 50,000 NOK)
- 2020 Event support grant, Centre for Coastal Research, University of Agder (Lead; 10,000 NOK)
- 2020 Event support grant, Department of Biosciences, University of Oslo (Lead; 10,000 NOK)
- 2020 Event support grant, Centre for Ecological & Evolutionary Synthesis (Lead; 10,000 NOK)
- 2019 Canadian Society for Ecology & Evolution Travel Grant (500 CAD)
- 2018 Dalhousie Faculty of Graduate Studies Travel Grant (500 CAD)
- 2017 Robert and Ella Wenzins Endowment (12,000 NOK)
- 2016 Clemens-Rigler Travel Award (235 CAD)
- 2015 Clemens-Rigler Travel Award (330 CAD)
- 2012 Canadian Society for Ecology & Evolution Travel Grant (500 CAD)

#### ARTISTIC & OUTREACH

### 2024-2025 Arts Council of Norway 'Interdisciplinary Event Scheme' (Executive Producer; 150,000 NOK)

- 2022 Communication of Science Prize, Institute of Biosciences, University of Oslo (10,000 NOK)
- 2022-2023 Arts Council of Norway 'Interdisciplinary Event Scheme' (Executive Producer; 150,000 NOK)
- 2022 Arts Council of Norway 'Other Music Measures' (Executive Producer; 80,000 NOK)
- 2022 Arts Council of Norway 'Visual Art Project Support' (Executive Producer; 70,000 NOK)
- 2021 Norwegian Research Council MARINFORSK Event Support Grant [*Torsketromming*, No. 329748] (PI; 31,000 NOK)
- 2019-2021 Arts Council of Norway 'Audio and Visual Fund' (Executive Producer; 100,000 NOK)
- 2018 Society for Conservation Biology Student Blogging Contest (international; 100 USD)

#### SCHOLARSHIPS

(Total awarded = 201k CAD / 1.3 million NOK)

- 2016-2017 Nova Scotia Graduate Scholarship (15,000 CAD)
- 2014-2016 Killam Predoctoral Scholarship (25,000 CAD)
- 2013-2015 NSERC Alexander Graham Bell Canada Graduate Scholarship D3 (105,000 CAD)
- 2013-2015 Dalhousie President's Award (tuition = 26,370 CAD)
- 2011 Sushi Nami Royale Graduate Scholarship (1,000 CAD)
- 2010-2011 NSERC Alexander Graham Bell Canada Graduate Scholarship M (17,500 CAD)
- 2010-2011 Ontario Graduate Scholarship (declined) (15,000 CAD)
- 2007 J.J. Robinette Scholarship for academic achievement (500 CAD)
- 2006-2009 Trent National Renewable Scholarship (10,000 CAD)
- 2006-2009 Queen Elizabeth Aiming for the Top Scholarship (400 CAD)

#### GRANT PROPOSALS PENDING

- Apr. 2024 Atlantic Fisheries Fund (Partner [PI: Michael Stokesbury, Acadia University]; 406,250 CAD total, 16,000 CAD to U. New Brunswick)
- Dec. 2024 Norwegian Research Council Researcher Project [*Ecological Gold Rush*] (Partner and coauthor [PI: Louise Chavarie, Norwegian University of Life Sciences]; 12 million NOK total, 1.5 million NOK to U. New Brunswick)
- Spring 2025 Natural Sciences and Engineering Research Council of Canada Collaborative Research and Training Experience (CREATE) Program [*Partnered and Interdisciplinary Coastal and Ocean Team Science (PICOTS)*] (Partner and coauthor [PI: Jean-Francois Bousquet, Dalhousie University])

#### OTHER AWARDS

2012	Dalhousie Governors' Award for extracurricular leadership (institutional; 1,200 CAD)
2012	Biology Organization of Graduate Students Outstanding Executive Award (departmental)
2011	Phi Kappa Pi Joe Ghiz Memorial Award for student leadership (institutional; 750 CAD)

### TEACHING

2024-	<b>Instructor of Record</b> , Marine Behavioural Ecology (4 <sup>th</sup> year), University of New Brunswick Saint John
2023-	Instructor of Record, Evolution (3rd year), University of New Brunswick Saint John
2023-	<b>Co-Instructor of Record</b> , Functional Ecology of Fishes (3-4 <sup>th</sup> year; Marine Semester), University of New Brunswick Saint John
2020, 2021	Guest lecturer, Evolutionary Biology (1 <sup>st</sup> year), University of Agder
2020	Guest lecturer, Evolution (1 <sup>st</sup> year, 2 lectures), University of Hawai'i at Hilo
2016	Instructor of Record, High Throughput Sequencing & Bioinformatics, RNA-sequencing Module (MSc/PhD), University of Oslo
2013	Guest lecturer, Ecology & Evolution of Fishes (3rd year), Dalhousie University
2011, 2012	Laboratory demonstrator, Marine Life of Nova Scotia (non-majors), Dalhousie University
2011-2012	Biology tutor, Dalhousie University
2011	Teaching assistant, Genetics & Molecular Biology (2nd year), Dalhousie University
2010	Video demonstrator, Introduction to Forensics (1 <sup>st</sup> year online course), Trent University
2009	Teaching assistant, Vertebrate Zoology (2 <sup>nd</sup> year), Trent University
2009	Forensic Science Enrichment Camp leader (secondary school), Trent University
2008	Guest lecturer, Introduction to Biology (1 <sup>st</sup> year), York University

#### **MENTORING & SUPERVISION**

2024- Supervisor, Stephanie Maheux, Summer RA & Honours thesis, University of New Brunswick
2024- Supervisor, Abigail Scher, Summer RA & Honours thesis, University of New Brunswick
2024- Supervisor, Safe Abujayyab, Work-study & Honours thesis, University of New Brunswick
2024- Supervisor, Rebecca Krohman, MSc thesis, University of New Brunswick
2023- Co-supervisor, Claudia Lacroix, PhD thesis, University of Agder

2023-	Supervisor, Simon Henriksson, PhD thesis, University of Gothenburg
2023-2024	Supervisor, Annika Lie, Research Assistant, University of Agder
2023-	Supervisor, Thomas Marcussen, Adviser (Sampling Coordinator), University of Oslo
2023-	Co-Supervisor, Giada Ferrari, Head Engineer, Norwegian Sequencing Centre
2021-2023	Supervisor, Annika Lie, MSc thesis, University of Agder
2021-2023	Supervisor, Jeppe Have Rasmussen, Postdoctoral Research Fellow, Centre for Coastal Research, University of Agder (now independent Carlsberg Foundation Fellow)
2021	Supervisor, Emilie Kvåle Sletterød Andersen, BSc thesis, University of Agder
2021	Supervisor, Julie Eriksen, BSc thesis, University of Agder
2021	Co-supervisor, Nora Isnes Johansen, BSc thesis, University of Agder
2021	Co-supervisor, Amalie Godstad, BSc thesis, University of Agder
2021	Supervisor, Fredrick Nicolai Clausen, BSc thesis, University of Agder
2021	Supervisor, Paul Elias Homme, BSc thesis, University of Agder
2020-2021	Co-supervisor, Griet Nobis, MSc thesis, Norwegian University of Life Sciences (now Aquatic Biological Consultant with Bioconsult)
2014-2016	Co-supervisor, Elisabeth Juliussen, MSc thesis, University of Oslo (now Environmental Advisor to the County Governor of Adger)
2013-2015	Co-op supervisor, 5 students*, Institute of Marine Research Flødevigen, Norway
2011-2012	Undergraduate supervisor, Chelsea Boaler, Aquatron Laboratory, Dalhousie University
2011-2012	Undergraduate supervisor, Brianna Mosher, Aquatron Laboratory, Dalhousie University
2009-2010	Co-op mentor, 1 student*, Natural Resources DNA Profiling & Forensic Centre, Trent University

\*I do not provide the names of minors due to privacy concerns.

### THESIS COMMITTEES

2024-	Peyton Hartenstein, PhD, University of New Brunswick Saint John
2024-	Evan Berthelot, MSc, University of New Brunswick Saint John
2023-	Laken Devost, MSc, University of New Brunswick Saint John
2023-	Sarah Harrison, MSc, University of New Brunswick Saint John

# OUTREACH & ARTISTIC DEVELOPMENT

Scientific Consultant / Content Creator, SKREI Museet (National Cod Museum), Norway
 Co-creator / Executive Producer, *TORSKETROMMING: Dialects of the Deep* Östersjöfestivalen, Stockholm, 24/08-02/09/23 [workshop, performance, exhibition]
 <u>True Northern Arts Festival</u>, Harstad, 24/06-01/07/23 [sound installation, concert]
 <u>Barents Spektakel</u>, Kirkenes, 24/02-01/03/23 [lecture, concert, installation, panel] *Headliner* Tekniska Museet, Stockholm, 11-12/02/23 [interactive workshop/performance]
 DKS-LAB: Den kulturelle skolesekken Norge, Kirkenes, 02/23 [children's workshops]
 Co-creator / Executive Producer, *TORSKETROMMING: Cod Connection*

	Chewing The Tundra, Kunsthalle Exnergasse, Vienna, 02/11-17/12/22 [installation, concert]
	Biodiversity Genomics 2022, online, 07/10/22 [concert, Q&A]
	Øyepå Lofoten International Art Festival (LIAF), Kabelvåg, 22/09/22 [panel]
	DKS-LAB: Den kulturelle skolesekken Norge, Kirkenes, 05-08/09/22 [children's workshops]
	Passion for Ocean Festivalene, Stavanger, 04/09/22 [talk, performance]
	Passion for Ocean Festivalene, Arendal, 27/08/22 [talk, performance, installation]
	Torskens Kunstfestival, Torskeholmen, Grimstad, 16/07/22 [performance, installation]
	Passion for Ocean Festivalene, Trondheim, 04/06/22 [talk, performance]
	Only Connect Festival, Munch Museum, Oslo, 29-30/04/22 [performance, installation]
	Barents Spektakel, Kirkenes, 26/02/22 [panel & demonstration]
2022	Writer / contributor, <u>UNDERFLATE</u> , SALT Art & Music, 18/08-16/10/22 [exhibition, publication]
2022	Invited guest, Women in Ecology & Evolution Podcast "Open Science" episode, 04/05/22
2021	Co-creator / Executive Producer, TORSKETROMMING: 2021 TOUR
	Arendalsuka, Bomuldsfabriken, Arendal, 17/08/21 [preview]
	Ultima Contemporary Music Festival, Sentralen, Oslo, 19/09/21 [world premiere]
	'As far as my Eye can Sea' exhibition, Bomuldsfabriken, Arendal, 23/09/21 [performance]
	Young Researchers Night, Teateret, Kristiansand, 24/09/21 [talk & performance]
	In the media: <u>NRK</u> , <u>VG-TV</u> , <u>NRK Radio P1 Finnmarkssendinga</u> , Aftenposten, <u>Agderposten</u> , <u>Fædrelandsvennen</u> , <u>Titan</u> , <u>ABC Nyheter</u> , <u>Forskning.no</u> , Oppland Arbeiderblad, Romsdals Budstikke, Bladet Vesterålen, Nynorsk Pressekontor, ++
2020	Invited guest, Women in Ecology & Evolution Podcast "Paper in Focus" segment, 23/10/20
2020	<b>Lead author</b> , Op-ed: ' <u>South coast cod probably have their own dialect</u> ', in Agderposten (Regional newspaper), 05/10/20
2020	Feature guest, <u>TORSKE-TV</u> ('COD-TV'), cod spawning live-stream with article and video interviews by the Institute of Marine Research, 16/03/20, picked up by <u>Sweden's Fishermen</u> <u>Organisation</u> and <u>Diving Magazine</u>
2020	Exhibitor, TORSKETROMMING ('COD DRUMMING'), Life Sciences Exhibition at the Technical Museum of Oslo, 13/02/20 * <u>invited participant</u>
2019	<b>Lead author</b> , Op-ed: ' <u>The cod crisis in the Oslo fjord is due to more than just climate</u> <u>change'</u> , in <i>Aftenposten</i> (Norway's largest newspaper), 12/11/19
2019-2020	Executive Producer, <u>TORSKETROMMING</u> , a scientific and artistic investigation into the role of sound in the Atlantic cod mating ritual
2019	Exhibitor, Torsk og du! ('Cod and you!'), Oslo Science Expo
2017	Organizing Committee member, March for Science Oslo, Norway
2017	<b>Co-creator/performer</b> of ' <i>Shoulders of Giants</i> ', a science outreach music video ( <u>https://youtu.be/3h8CW3WE8l8</u> ) >9,500 views
2017	Author, popular science article for Oomen & Hutchings 2017, in Medium
2015	Feature guest, <u>Havforskerne ('Oceanographers')</u> episode 3, Torsk ('Cod')
2010	Guest appearance, Daily Planet, Science in the City

#### PROFESSIONAL SERVICE

2021-	ERGA Ethical, Legal, and Social Issues (ELSI) Committee
2021-	ERGA Justice, Equity, Diversity, and Inclusion (JEDI) Sub-committee
2023	Lead Organizer, Norwegian Biodiversity & Genomics Conference 2023
2022-	ERGA Sampling and Sample Processing Committee
2021,2022	Expert Reviewer, ForBio Research School MSCA-IF Training Program
2021	Lead Organizer, 'Genomic Forecasting Symposium', Society for Molecular Biology & Evolution 2021 virtual meeting
2021-2023	Council Representative for Norway, European Reference Genome Atlas (ERGA) Council
2021-2023	Co-chair, ERGA Ethical, Legal, and Social Issues (ELSI) Committee
2021-2023	Co-chair, ERGA Justice, Equity, Diversity, and Inclusion (JEDI) Sub-committee
2021-	ERGA Pilot Project Sample Ambassador for Atlantic bluefin tuna
2021-2023	ERGA Bylaws Working Group
2020	Expert Panel Member, Icelandic Research Fund
2020	Lead Organizer, 'Genomic Forecasting Symposium 2020' (online due to COVID-19)
2020	Symposium co-organizer, 'Genomic predictions of responses to the environment', Society for Molecular Biology & Evolution 2020 meeting (cancelled due to COVID-19)
2019, 2020,	Canadian Society for Ecology & Evolution Excellence in Doctoral Research Award Panel
2024	
2018-2023	Editorial Board member, Scientific Data (Nature Publishing Group)
2012-	Reviewer [n>1]: Molecular Ecology [5], Journal of Animal Ecology [2], ICES Journal of Marine Science [2], Aquaculture Research [2], Molecular Ecology Resources, PNAS, Evolutionary Applications, BMC Ecology & Evolution, Conservation Physiology, Ecology & Evolution, and

### ELECTED POSITIONS

- 2021-2023 Council Representative for Norway, European Reference Genome Atlas (ERGA) Consortium
- 2011-2012 Graduate Student Senator, Dalhousie University Senate
- 2011-2012 President, Biology Organization of Graduate Students
- 2011-2012 Lett Symposium Coordinator
- 2009-2010 Student Departmental Representative, Forensic Science Department
- 2008-2010 Secretary, Forensic Science Society

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### WORKING GROUPS/CONSORTIA

- 2022- 'CodNet' Working Group [Lead], Santa Fe Institute, Santa Fe, NM, USA.
- 2022-2023 Earth BioGenome Project (EBP) [Affiliate Project Representative for EBP-Nor]
- 2021- ERGA Atlantic Bluefin Tuna Consortium

- 2021- Biodiversity Genomics Europe (BioGenEU) consortium for Horizon Europe Topic: HE-CL6-2021-BIODIV-01-01
- 2021-2023 Earth BioGenome Project Norway (EBP-Nor) [Scientific Coordinator 2022-2023], University of Oslo, Norway
- 2020- The European Reference Genome Atlas (ERGA) Consortium (<u>https://www.erga-biodiversity.eu</u>)
- 2020-2022 'Promoting marine and maritime research in Horizon Europe', WP1: Sustainable food systems, including aquaculture and fisheries, *Norwegian Marine University Consortium and Norwegian Ocean Alliance to Horizon Europe*
- 2019-2021 'Coastal zones in times of change', Centre for Coastal Research, Kristiansand, Norway
- 2018-2022 'Sociality under scarcity', Santa Fe Institute, Santa Fe, NM, USA

### WORKSHOPS

ELISE Workshop on AI for ocean restoration and marine protection, online
British Ecological Society Climate Change Genomics Workshop, online
Machine Learning in R, University of Oslo, Oslo, Norway
Society for Molecular Biology & Evolution Speciation Genomics workshop, Tjärnö, Sweden
Science Communication workshop, Alan Alda Centre for Communicating Science, Oslo, Norway \*<u>invited participant</u>
Nature Masterclass workshop, Fredrikstad, Norway

### ACADEMIC SERVICE

- 2023- Graduate Student Space Subcommittee, University of New Brunswick Saint John
- 2019 Centre for Ecological & Evolutionary Synthesis Student Awards Committee
- 2016 Young Researchers' Day CEES Organizing Committee
- 2011-2012 Dalhousie University Senate
- 2011-2012 Senate Academic Programs and Research Committee
- 2011-2012 Senate Discipline Committee
- 2011-2012 Faculty of Graduate Studies (FGS) Council
- 2011-2012 FGS Appeals Committee
- 2012 FGS Associate Dean Review Committee
- 2011-2012 Biology Organization of Graduate Students Executive Committee (Chair)
- 2011-2012 Biology Organization of Graduate Students Social Committee
- 2011-2012 Biology Graduate Student Retreat Organizing Committee (Chair)
- 2011-2012 Annual Bioball Committee
- 2011-2012 Association of Biobeer Servers
- 2011-2012 Dalhousie Association of Graduate Students (DAGS) Board Member
- 2011-2012 DAGS Academic & External Relations Committee
- 2011-2012 DAGS Governance Committee

- 2011-2012 Dalhousie Student Union (DSU) Council
- 2011-2012 Graduate Advisory Committee
- 2011-2012 Senate Caucus
- 2011-2012 DSU Grants Committee
- 2011-2012 DSU Student Accessibility Fund Committee
- 2011-2012 DSU Academic and External Committee
- 2011-2012 Department of Biology Committee of the Whole
- 2011-2012 Committee of the Whole Graduate Directorate Subcommittee
- 2011-2012 Lett Symposium Organizing Committee (Co-Chair)

# EXTRACURRICULAR SERVICE

2018- Co-founder and Chair, TORSKETROMMING (interdisciplinary non-profit organization)
2018- Board member and organizer, Kampenjazz Jazz Club, Oslo, Norway
Winner of Norway's Best Jazz Club 2018 by <u>Now's The Time</u>
"...the big musical climax for me..." – David Fricke, Senior Editor of *Rolling Stone*, 07/12/18
2017 Music Director, Save The Arctic fundraising concert, Oslo, Norway
2017 Music Director, March for Science Oslo, Norway
2010-2011 Big sister with Big Brothers Big Sisters of Greater Halifax
2010 Judging team captain at the Canada Wide Science Fair

### MEMBERSHIP

Canadian Society for Ecology & Evolution European Society for Evolutionary Biology Society for the Study of Evolution Society for Molecular Biology & Evolution American Genetics Association American Fisheries Society Evidence for Democracy Network of Experts

# LANGUAGES

English – Native Norwegian – Limited working proficiency (CEFR level B1 [writing, speaking] & B2 [reading, listening]) French – Elementary proficiency (Grade 12)