

# Ruth Joy PhD

· · · ASSISTANT PROFESSOR · · ·

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## Education

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### Simon Fraser University

Burnaby, BC

#### PHD STATISTICS

2010 - 2013

- Advisor: Dr. Richard Routledge  
PhD Thesis: Methodology for analysing at-sea dive behaviour of a marine mammal

### Simon Fraser University

Burnaby, BC

#### MSc STATISTICS

2000 - 2002

- Advisor: Dr. Richard Routledge  
MSc Thesis: Assessing infilling methods for missing data in spawning salmon estimates

### University of Victoria

Victoria, BC

#### BSc BIOLOGY (CO-OP)

1991 - 1996

## Research Positions

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- 2023+ **Assistant Professor**, School of Environmental Science, SFU
- 2023+ **Associate Member**, Department of Statistics and Actuarial Science, SFU
- 2021-2023 **Assistant Professor Practitioner**, School of Environmental Science, SFU
- 2022-2027 **Adjunct Professor**, Faculty of Graduate Studies (Computer Science), Dalhousie University
- 2020-2023 **Adjunct Professor**, Department of Statistics and Actuarial Science, SFU
- 2018-2021 **Limited Term, Part-time Lecturer**, School of Environmental Science, SFU
- 2016-2020 **Senior Research Consultant**, SMRU Consulting, St Andrews University, Scotland
- 2014-2016 **Elevate Post-doctorate Fellowship**, MITACS & SMRU Consulting, St Andrews University, Scotland
- 2010-2013 **PhD Student**, Department of Statistics and Actuarial Science, SFU
- 2006-2007 **Biostatistician**, BC Centre for Excellence in HIV AIDS, St. Paul's Hospital, Vancouver
- 2002-2010 **Biostatistician**, Institute for the Oceans and Fisheries, University of British Columbia
- 2000-2002 **MSc Student**, Department of Statistics and Actuarial Science, Simon Fraser University
- 1996-2000 **Biologist**, Ministry of Environment, Nanaimo Regional Office, British Columbia

## Faculty Awards

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- 2024 **Dean's Award for Excellence in Graduate Supervision**, Faculty of Graduate Studies, SFU
- 2024 **Dean's Award of Excellence in Graduate Student Mentorship**, Faculty of Environment, SFU
- 2022 **Dean's Award of Excellence in Research**, Faculty of Environment, SFU

## Scholarship and Fellowship Awards to Ruth Joy

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- 2014-2016 **Elevate Post-doctorate Fellowship**, MITACS \$140,000
- 2010-2012 **NSERC Canadian Graduate Scholarship**, PhD award, NSERC \$70,000
- 2010-2012 **Provost Award of Distinction**, PhD award, Simon Fraser University \$28,800
- 2010-2013 **Hakai Network Research Scholarship**, PhD award, Tula Foundation \$36,000
- 2000-2002 **NSERC Canadian Graduate Scholarship**, MSc award, NSERC \$34,600
- 2000 **Graduate Entrance Scholarship**, MSc award, Simon Fraser University \$9,700

## Major Research Grants & Contracts ( $\geq$ \$100,000)

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### >\$7.5 MILLION IN RESEARCH GRANTS & FUNDING

- **Digital Research Alliance of Canada: Research Software AI Enhancement**  
*Project Title: Project CetAlceans: An AI platform for cetacean conservation*  
 Role: Lead Principal Investigator  
 Amount: \$990,500. 2026-2028
- **SFU Office of the Vice-President, Research and Innovation**  
*Project Title: Institutional Research Infrastructure Support*  
 Role: Lead Principal Investigator.  
 Amount: \$100,000 2025-2028
- **NSERC Collaborative Research and Training Experience (CREATE) program**  
*Project Title: Whale Habitat, Acoustic Learning, Ecosystem Sustainability*  
 Role: Lead Principal Investigator  
 Amount: \$1,650,000 2025-2026
- **Collaborative Research Team Grant Canadian Statistical Sciences Institute**  
*Project Title: Fast, Distributed Bayes for Everyone*  
*Principal Investigators: A. Bouchard-Côté, T. Campbell, P. Gagnon, L. Wang*  
 Role: Collaborator  
 Amount: \$210,000 2025-2028
- **New Faculty Start-Up Grant: School of Environmental Science**  
*Project Title: Marine Ecology and Statistics*  
 Role: Principal Investigator  
 Amount: \$100,000 2023-2028
- **Canada Nature Fund for Aquatic Species at Risk, Government of Canada**  
*Project Title: Humans and Algorithms Looking and Listening for Orcas*  
 Role: Principal Investigator  
 Amount: \$1,500,000 2022-2026
- **NSERC Discovery Grant, with Discovery Launch Supplement**  
*Project Title: Mitigating Commercial Vessel Impacts on Coastal Whales*  
 Role: Principal Investigator  
 Amount: \$152,500 2021-2026
- **Canadian Department of National NSERC Supplement**  
*Project Title: Mitigating Commercial Vessel Impacts on Coastal Whales*  
 Role: Principal Investigator  
 Amount: \$120,000 2021-2024
- **Ocean and Freshwater Science Contribution Grant, Department of Fisheries and Oceans, Canada**  
*Project Title: Building Neural Networks for Classification of Killer Whale Calls*  
 Role: Principal Investigator  
 Amount: \$970,000 2020-2022
- **Ocean and Freshwater Science Contribution Grant, Department of Fisheries and Oceans, Canada**  
*Project Title: Developing a real-time forecasting system for Southern Resident killer whales*  
 Role: Principal Investigator  
 Amount: \$1,100,000 2019-2022

- **Canadian Institute of Health Research Grant**

*Project Title: Barriers to Anti-Retroviral Treatment*

Role: Co-Applicant

Amount: \$143,550

2006-2009

## Smaller, Special-purpose Research Grants (<\$100,000)

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- **Global Affairs Canada: Faculty Mobility for Partnership Building Program**

*Project Title: Coastal seabirds as environmental indicators in the Eastern Pacific*

Role: Lead Principal Investigator.

Amount: \$7,000.

2026-2027

- **Parks Canada: Southern Gulf Islands National Park**

*Project Title: Acoustic Analysis of Java Islets*

Role: Lead Principal Investigator.

Amount: \$7,500

2026

- **BC Ministry of Environment and Park: Park Enhancement Fund**

*Project Title: Mitlenatch Cormorant and Gull Research*

Role: Lead Principal Investigator.

Amount: \$5,000

2025

- **Digital Research Alliance of Canada: Resources for Research Groups competition**

*Project Title: Boundary Pass Hydrophone Research Data (RRG no. 5266)*

Role: Lead Principal Investigator

Amount: \$20,826

2025-2026

- **France-Canada Research Fund: Embassy of France Travel Fund**

*Project Title: Promoting ocean conservation*

Role: Lead Principal Investigator

Amount: \$5,000

2025-2026

- **BC Ministry of Environment and Parks: Parks and Recreation Program**

*Project Title: Provincial Long-Term Ecological Monitoring Contract*

Role: Lead Principal Investigator

Amount: \$92,000

2024-2026

- **Department of Transport, Government of Canada**

*Project Title: Saturna Island: Analysis of Conservation Measures*

Role: Lead Principal Investigator

Amount: \$90,400

2023-2024

- **Department of Fisheries and Oceans, Government of Canada**

*Project Title: Oil Spill Response, Conservation and Protection*

Role: Principal Investigator

Amount: \$51,750

2023-2024

- **France Canada Research Grant**

*Project Title: Améliorer notre compréhension des impacts du changement climatique sur une espèce clé de l'Arctique: le phoque à capuchon*

Role: Co-Principal Investigator

Amount: \$15,000

2022-2024

- **NSERC MITACS Alliance Grant in partnership with the ECHO Program, Vancouver Port Authority**  
*Project Title: Analysing Marine Vessel effects on whales in Boundary Pass in the Salish Sea, British Columbia*  
 Role: Principal Investigator  
 Amount: \$70,000 2022-2024
- **Environment and Climate Change Canada**  
*Project Title: Photogrammetry of Double-crested Cormorant breeding colonies in the Strait of Georgia*  
 Role: Principal Investigator  
 Amount: \$36,209 2022-2023
- **Department of Fisheries and Oceans, Government of Canada**  
*Project Title: Humans and Algorithms*  
 Role: Principal Investigator  
 Amount: \$70,000 2022-2023
- **Habitat Conservation Trust Fund: Conservation Economic Stimulus Initiative**  
*Project Title: Photographic recording of breeding cormorants to support effective population management in the Salish Sea*  
 Role: Principal Investigator  
 Amount: \$52,000 2021
- **Habitat Conservation Trust Fund: Conservation Economic Stimulus Initiative**  
*Project Title: Photographic recording of breeding cormorants to support effective population management in the Salish Sea*  
 Role: Principal Investigator  
 Amount: \$52,000 2021
- **Environment and Climate Change Canada**  
*Project Title: Photogrammetry Equipment Grant*  
 Role: Principal Investigator  
 Amount: \$35,000 2020
- **Habitat Conservation Trust Fund: Public Assistance Fund**  
*Project Title: Feathers for Phylogenetics: Divergence in Western Sandhill Cranes*  
 Role: Principal Investigator  
 Amount: \$7,000 2017-2020
- **National Geographic Society Waitt Foundation Grant**  
*Project Title: The Coastal Crane Atlas Project*  
 Role: Principal Investigator  
 Amount: \$15,000 2016-2019

## Grad Student and Postdoc Fellowships

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### >\$1.0 MILLION IN GRAD STUDENT AND POSTDOC SUPPORT

2026-2028	<b>NSERC Canada Impact+ Research Training Award</b> , Awarded to postdoc E. Auguin <i>Project Title:</i> , Resilience and vulnerability of hooded seals in a warming Arctic	\$140,000
2026-2028	<b>MITACS with JASCO Applied Sciences</b> , Award declined <i>Project Title:</i> , Predictive movement models for endangered killer whales in busy waters	\$180,000
2026-2028	<b>MITACS with North Coast Cetacean Society</b> , Awarded to postdoc, N. Fonvieille <i>Project Title:</i> , From Noise to Knowledge: Quantifying Whale Movement and Acoustic Response to Marine Vessel Traffic for Conservation on the BC Coast	\$120,000
2025-2027	<b>MITACS with the Port of Vancouver ECHO Program</b> , Awarded to MSc student, L. Laternus, <i>Project Title:</i> , Investigating Vessel Impacts on Endangered Whales	\$90,000
2025	<b>NSERC Undergraduate Student Research Awards</b> , Awarded to Ugrad, K. Chavarria Sosa <i>Project Title:</i> , Climate Change and Cormorant Breeding Success in the Strait of Georgia	\$6,000
2024-2025	<b>MITACS with Raincoast Conservation Foundation</b> , Awarded to MSc student, J. McNeilly <i>Project Title:</i> , Pender Island Cetacean Research	\$15,000
2024	<b>MITACS with the Port of Vancouver ECHO Program</b> , Awarded to MSc student, L. Laternus <i>Project Title:</i> , Analysing marine vessel effects on whales in Boundary Pass, B.C.	\$10,000
2024-2026	<b>Liber Ero Postdoc</b> , Awarded to postdoc, P. Thompson, Liber Ero Fellowship Program <i>Project Title:</i> , Linking southern resident killer whale space use to vessel-based disturbance in the Salish Sea	\$170,000
2024	<b>MITACS GlobalLink Mobility</b> , Awarded to PhD, A. Mendez-Bye <i>Project Title:</i> , Understanding impacts of climate-induced changes on Arctic ice seals	\$6,000
2023-2025	<b>MITACS with JASCO Applied Sciences</b> , Awarded to MSc student A. Houweling <i>Project Title:</i> , Investigating Southern Resident and Bigg's killer whale clicks to explore ecotype-specific detectors	\$95,000
2022-2026	<b>France-Canada PhD Student Grant</b> , Awarded to PhD student, A. Mendez-Bye <i>Project Title:</i> , Understanding impacts of climate-induced changes on hooded seals	\$97,000
2022	<b>MITACS with Port Moody's Dept of Environment and Parks</b> , MSc student J. Cormier <i>Project Title:</i> , What Swims Beneath Port Moody: seasonal fish abundance	\$15,000
2021	<b>MITACS with Saturna Island Marine Research and Education Society</b> , MSc student K. Baril <i>Project Title:</i> , Vessels and Whale Behaviour in Boundary Pass, B.C.	\$15,000
2021	<b>MITACS with Port of Vancouver ECHO Program</b> , MSc student A. Gheibi <i>Project Title:</i> , Humpback Whale Behaviour in Boundary Pass, B.C.	\$15,000
2021	<b>MITACS with CETUS Research and Conservation Society</b> , MSc students M. Bouvier & V. Rani <i>Project Title:</i> , Assessing the acoustic and physical disturbances of marine traffic on the Northern Resident Killer Whales in the Robson Bight Michael Bigg Ecological Reserve	\$30,000
2019-2020	<b>MITACS with SMRU Consulting Ltd</b> , Awarded to MSc student L. Quayle <i>Project Title:</i> , Monitoring Interactions of Southern Resident Killer Whales with Recreational Boats and Commercial Vessels in Boundary Pass	\$60,000

## Primary Supervision of Student and Postdoctoral Research

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+ supervision ongoing

### POSTDOCTORAL FELLOWS (N=7)

2026 +	<b>Erwan Auguin</b> , School of Environmental Science	SFU
2026 +	<b>Nadège Fonvieille</b> , School of Environmental Science	SFU
2023 +	<b>Bruno Padovese</b> , School of Environmental Science	SFU
2024 - 2026	<b>Peter Thompson</b> , School of Environmental Science	SFU
2024 - 2025	<b>Kaitlin Palmer</b> , School of Environmental Science	SFU
2020 - 2023	<b>Paul Nguyen Hong Duc</b> , Co-supervised, School of Math and Stats, School of EVSC	SFU
2019 - 2022	<b>Marine Gonse</b> , School of Environmental Science	SFU

### PHD GRADUATE STUDENTS (N=3)

2024 +	<b>Teng-Wei Lin</b> , PhD Statistics	SFU
2023 +	<b>Andrea Mendez-Bye</b> , PhD Co-supervised with Ecology Dept, U La Rochelle	SFU
2021 +	<b>Fábio Frazão</b> , PhD Co-supervised with Math and Statistics	Dalhousie U

### MSC GRADUATE STUDENTS (N=26)

2026 +	<b>Ninon Pichard</b> , MSc, University of Lille	SFU
2025 +	<b>Neil Saxvik</b> , MSc, School of Environmental Science	SFU
2024 +	<b>Lauren Laturmus</b> , MSc Co-supervised with Biological Science, SFU	SFU
2023-2025	<b>Lindsay Lalach</b> , MSc Biological Sciences	SFU
2024-2025	<b>Dylan Smyth</b> , MSc Marine Biology, U Algarve	SFU
2024-2025	<b>Mathias Pouly</b> , MSc Biology Dept, U Strasbourg	SFU
2023-2025	<b>April Houweling</b> , MSc Statistics	SFU
2022-2024	<b>Janine McNeilly</b> , MSc Ecological Restoration	SFU
2022-2024	<b>Sam Broadley</b> , MSc Ecological Restoration	SFU
2022-2024	<b>Mikayla Young</b> , MSc Ecological Restoration	SFU
2022-2024	<b>Rachel Fairfield Checko</b> , MSc Ecological Restoration	SFU
2021-2023	<b>Teng-Wei Lin</b> , MSc Statistics	SFU
2021-2023	<b>Joseph Cormier</b> , MSc Ecological Restoration	SFU
2021-2023	<b>Olivia Murphy</b> , MSc Ecological Restoration	SFU
2021-2023	<b>Rachel Stapleton</b> , MSc Ecological Restoration	SFU
2020-2022	<b>Kaitlin Baril</b> , MSc Ecological Restoration	SFU
2020-2022	<b>Madie Bouvier</b> , MSc Ecological Restoration	SFU
2020-2022	<b>Azadeh Gheibi</b> , MSc Ecological Restoration	SFU
2020-2022	<b>Varsha Rani</b> , MSc Ecological Restoration	SFU
2020-2022	<b>Rosalin Wilkin</b> , MSc Ecological Restoration	SFU
2019-2021	<b>Kathleen Meszaros</b> , MSc Ecological Restoration	SFU
2019-2021	<b>Macus Ong</b> , MSc Ecological Restoration	SFU
2019-2021	<b>Lucy Quayle</b> , MSc Ecological Restoration	SFU
2018-2020	<b>Okezi Akporuno</b> , MSc Ecological Restoration	SFU
2018-2020	<b>Madeline Edmonds</b> , MSc Ecological Restoration	SFU
2018-2020	<b>Alex Harris</b> , MSc Ecological Restoration	SFU

### UNDERGRADUATE HONOURS STUDENTS (N=2)

2026 +	<b>Hannah Berry</b> , BSc Environmental Science	SFU
2026 +	<b>Kassandra Chavarria Sosa</b> , BSc Environmental Science	SFU

## RESEARCH ASSISTANTS (N=17)

2024-2026	<b>Dhanvi Desai</b> , Ugrad summer R.A., Statistics	SFU
2024-2026	<b>Dhanvi Desai</b> , Ugrad summer R.A., Statistics	SFU
2025	<b>Hannah Berry</b> , Ugrad summer R.A., School of Environmental Science	SFU
2025	<b>Saniya Parmar</b> , Ugrad summer R.A., School of Environmental Science	SFU
2025	<b>Kassandra Chavarria Sosa</b> , Ugrad summer R.A., School of Environmental Science	SFU
2024-2025	<b>Marius Clabaux</b> , Graduate internship, with Marine Ecology and Applied Data-Sciences	<i>U Bretagne-O</i>
2024	<b>Clément Grandidier</b> , Graduate internship, with Math, Biology and Computer Science	<i>INSA Lyon</i>
2024	<b>Leah Egery-Haley</b> , Ugrad R.A., School of Environmental Science	SFU
2023-2024	<b>Olivia Murphy</b> , Graduate R.A., School of Environmental Science	SFU
2023	<b>Jessiquence Tang</b> , Ugrad summer R.A., School of Environmental Science	SFU
2023	<b>Claudia Cristescu</b> , Ugrad R.A., School of Environmental Science	SFU
2023	<b>Lauren McKay</b> , Ugrad R.A., School of Environmental Science	SFU
2022-2024	<b>Lauren Laturnus</b> , Ugrad R.A., School of Environmental Science	SFU
2021-2022	<b>Laurence Cojocar</b> , Ugrad Co-op Student, Department of Statistics	SFU
2021	<b>Lucy Quayle</b> , Grad R.A., School of Environmental Science	SFU
2020-2021	<b>Macus Ong</b> , Grad R.A., School of Environmental Science	SFU
2020, 2021	<b>Hoky Hsu</b> , Ugrad Summer R.A., School of Environmental Science	SFU
2020-2021	<b>Emma Cummings</b> , Graduate R.A., School of Environmental Science	SFU

## Honors, Awards & Recognitions earned by Students & Postdocs

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2026	<b>Andrea Mendez-Bye</b> , Society of Marine Mammology Student Travel Grant	SFU
2026	<b>Teng-Wei Lin</b> , Faculty of Environment's Excellence in Graduate Research & Engagement	SFU
2025	<b>Neil Saxvik</b> , Liber Ero Graduate Scholarship	SFU
2025	<b>April Houweling</b> , Faculty of Environment's Excellence in Graduate Research & Engagement	SFU
2025	<b>Lindsay Lalach</b> , Biological Sciences Graduate Travel and Research Award	SFU
2024	<b>April Houweling, Lauren Laturnus, Lucy Quayle with SGIWSN</b> , The Nightingale Award in Ocean Engagement awarded from Raincoast Conservation Foundation	<i>Raincoast</i>
2024	<b>Lindsay Lalach</b> , BISC Graduate Student Society Professional Development Grant	SFU
2024	<b>Lindsay Lalach</b> , Environmental Science Scholarship	SFU
2024	<b>April Houweling</b> , Environmental Science Scholarship	SFU
2024	<b>Janine McNeilly</b> , Faculty of Environment's Excellence in Graduate Research & Engagement	SFU
2023	<b>Janine McNeilly</b> , Graduate Research Award in Environmental Science	SFU
2023	<b>Samantha Broadley</b> , Graduate Research Award in Environmental Science	SFU
2023	<b>Fabio Frazao</b> , Ocean Networks Canada, Roy Hyndman Ocean Observing Award	<i>ONC</i>
2023	<b>Rachel Stapleton</b> , Faculty of Environment Excellence in Graduate Research Award	SFU
2022	<b>Rachel Stapleton</b> , Rudy North Academic Bursary	<i>BCIT</i>
2021	<b>Marine Randon</b> , Best poster award at SFU Postdoc Research Day	SFU
2021	<b>Marine Randon</b> , Runner-up writing award at SFU Postdoc Research Day	SFU
2020	<b>Joe Watson</b> , Student presentation award, International Statistical Ecology Conference	<i>ISEC</i>
2020	<b>Macus Ong</b> , Runner-up photography award in BBC Photo Magazine for November 2020	<i>BBC</i>

## Peer-reviewed Publications

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HQP are underlined: students and postdocs

### SUBMITTED & IN REVIEW (N=2)

55. Martin, K. A., et al., including **R. Joy**. *In Review*. New Perspectives on Addressing Systemic Biases in Movement Ecology. Submitted to Proceedings of the Royal Society B: Biological Sciences.
54. Gallagher, C.A., et al., including **R. Joy**. *In Review*. Beneath the surface: Reviewing approaches to process representation and disturbance forecasting in marine mammal models. Submitted to Global Change Biology.

### PUBLISHED ARTICLES (N=53); PUBLISHED SINCE ARRIVAL AT SFU (N=27); PUBLISHED WITH HQP (N=15)

53. Mendez-Bye, A., T. Jeanniard-du-Dot, X. Bordeleau, J. Vacquié-Garcia, N. Fonvieuille, M. O. Hammill, G. Stenson, and **R. Joy**. 2026. Multidecadal shifts in hooded seal dive behaviour in a changing ocean. *Arctic Science*.
52. Padovese, B., F. Frazao, M.G. Dowd and **R. Joy**. 2026. Advancing marine bioacoustics with deep generative models: A hybrid augmentation strategy for Southern Resident killer whale detection. *Marine Mammal Science*.
51. Lalach, L.A.R., M. Chimienti, A.K. Lenske, G.T.W. McClelland and **R. Joy**. 2026. Ecological Drivers of Winter Movement and Foraging Behaviour of Brandt's Cormorants (*Urile penicillatus*) in the Salish Sea. *Special issue 'Advances in Applied Biotelemetry' in Animal Biotelemetry*.
50. Thompson, P., M.G. Dowd, H. Yurk, and **R. Joy**. 2026. Integrating multiple observation data sources to facilitate movement modelling of killer whale pods. *Movement Ecology*.
49. Palmer, K.J., A. Houweling, L. Laturus, J. Pilkington, A.R. Vuibert, J. Wladichuk, and **R. Joy**. 2026. Population-level acoustic classification of Salish Sea killer whales: integrating biologically informed call type balancing to build robust models for conservation monitoring. *Marine Mammal Science*.
48. **Joy, R.**, K. Roessingh, K. Meszaros, A. Miscampbell, C. Ritland, M. Hayes, G. Ivey, M. Petrula, J.B. Joy. 2025. Deciphering cryptic population structure in Western Sandhill Crane subspecies (*Antigone canadensis*) of the Pacific Flyway. *Ecology and Evolution*.
47. Lin, T.-W., M.G. Dowd and **R. Joy**. 2025. Forecasting Trajectories of Southern Resident Killer Whales with Stochastic Movement Models Incorporating Direction Modification. *Ecological Modelling*.
46. Palmer, K.J., E. Cummings, K. Frasier, F. Frazão, A. Harris, A. Houweling, J. Kanes, H. Klinck, H. LeBlond, A.A. Leu, L. Laturus, C. Matkin, O. Murphy, H. Myers, D. Olsen, B. Padovese, J. Pilkington, L. Quayle, A.R. Vuibert, K. Trounce, S. Veirs, V. Veirs, J. Wladichuk, H. Yurk, and **R. Joy**. 2025. Annotated *Orcinus orca* Acoustic Dataset for Detection and Ecotype Classification. *Nature: Scientific Data*.
45. Frazão, F., **R. Joy** and M. Dowd. 2025. Comparing acoustic representations for deep learning-based classification of underwater acoustic signals: a case study for orca (*Orcinus orca*) vocalizations. *Ecological Informatics*.
44. Stapleton, R., L.L.E. Cowen, G.T.W. McClelland, S.J.R. Broadley, and **R. Joy**. 2025. Applying photogrammetry and multievent modeling to determine effects of predation on seabird colony nest success. *Endangered Species Research*.
43. Wilkin, R., J. Anderson, I. Sahay, M. Ong, S.J.R. Broadley, M. Gonse, G.T.W. McClelland, and **R. Joy**. 2025. Vantage point photography and deep learning methods save time in monitoring seabird nesting colonies. *Ornithological Applications*.
42. Millikin, R.L., T. Manning, **R. Joy**, D. Henderson, M. Harrison, J. Komaromi, and B. Danielson. 2025. Evaluation of a drone to map and monitor critical habitat for the Sage Thrasher, *Oreoscoptes montanus*. *Drone Systems and Applications*.
41. Chimienti, M., A. Kato, V. Seydi, S. Schoombie, J.T. Hinke, **R. Joy**, D. Lidgard, C. Oosthuizen, Y.P. Papastamatiou, Y. Ropert-Coudert, A. Takahashi, J.-B. Thiebot, M. Visani, M. Coustaty, T. Jeanniard du Dot. 2025. Reviewing Seas of Data: Integrating Image-Based Bio-logging and Artificial Intelligence to Enhance Marine Conservation. *Methods in Ecology and Evolution*.
40. Nguyen Hong Duc, P., Campbell, D.A., Dowd, M. and **R. Joy**. 2024. Functional data analysis to describe and classify southern resident killer whale calls. *Ecological Informatics*

39. Clarke, C.M.K., V. Rani, E. Stredulinsky, S. Toews, M. Bouvier, D. Smyth, **R. Joy**, S.J. Thornton. 2024. Assessing the efficacy of ecological reserves: killer whale beach rubbing behaviour and vessel disturbance. *Endangered Species Research*.
38. Ryder, M., C. Booth, C. Oedekoven, T. Marques, **R. Joy**, and D. Harris. 2023. Passive acoustic monitoring power analysis: A tool for designing an acoustic monitoring program. In: Popper, A.N., Sisneros, J., Hawkins, A.D., Thomsen, F. (eds) *The Effects of Noise on Aquatic Life*. Springer, Cham.
37. Randon, M., M. Dowd, and **R. Joy**. 2022. A real-time data assimilative forecasting system for animal tracking. *Ecology*. pe3718.
36. **Joy, R.**, R. S. Schick, M. Dowd, T. Margolina, J. E. Joseph and L. Thomas. 2022. A fine-scale marine mammal movement model for assessing long-term aggregate noise exposure. *Ecological Modelling*. 493:109798.
35. Watson, J., **R. Joy**, D. J. Tollit, S. J. Thornton, and M. Auger-Méthé. 2021. Estimating animal utilization distributions from multiple data types: A joint spatiotemporal point process framework. *Annals of Applied Statistics*. 15(4): 1872-1896.
34. Williams, R., E. Ashe, L. Yuretagoyena, N. Mastica, M. Siple, J. Wood, **R. Joy**, R. Langrock, S. Mews, E. V. Finne. 2021. Reducing vessel noise benefits foraging in endangered killer whales. *Marine Pollution Bulletin*. 173:00-00.
33. De Groot, K. L., A. N. Porter, A. R. Norris, A. C. Huang, and **R. Joy**. 2021. Seasonal patterns of bird-window collisions at a Pacific coast site and high vulnerability of the Varied Thrush (*Ixoreus naevius*) in winter. *Ornithological Applications*. 123(3): 1-15.
32. Trounce, K., O. Robinson, A. MacGillivray, D. Hannay, J. Wood, D.J. Tollit, and **R. Joy**. 2020. The effects of vessel slowdowns on foraging habitat of the southern resident killer whales. *Proceedings of the Meetings on Acoustics (POMA)*. vol. 37, no. 1, p. 070009.
31. Millikin, R., **R. Joy**, J. Komaromi, M. Harrison, P. Krannitz, N. Mahony, M. Vander Haegen. 2020. Critical habitat identification of peripheral Sage Thrashers under climate change. *Conservation Science and Practice*. 2(12), p.e290.
30. Wilson, L.J., J. Harwood, C.G. Booth, **R. Joy**, and C.M. Harris. 2020. A decision framework to identify populations that are most vulnerable to the population level effects of disturbance. *Conservation Science and Practice*. 2(2), p.e149.
29. **Joy, R.**, D.J. Tollit, J. Wood, A. MacGillivray, Z. Li, K.Trounce and Orla Robinson. 2019. Benefits of vessel slowdowns on endangered Southern Resident killer whales. *Frontiers of Marine Science*, 6: 344-363.
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\* Note my birth name was **van den Driessche**

## Technical & Government Reports

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PUBLISHED REPORTS (N=60); SINCE ARRIVAL AT SFU (N=33); PUBLISHED WITH HQP (N=18)

HQP are underlined: *students and postdocs*

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56. Murphy, O., L. Laternus, L. Egerly-Haley, D. Desai, and R. Joy. 2024. How to effectively measure and enforce marine vessel noise disturbance for marine mammals: Underwater Noise Disturbance Literature Review. Technical report prepared by the School of Environmental Science, Simon Fraser University for the Fisheries and Oceans Canada, Conservation and Protection.
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43. Tollit, D., **R. Joy**, A. Harris, and J. Wood. 2020. SRKW noise offsetting for RBT2 marine shipping operations using an acoustic footprint exposure approach. Prepared by SMRU Consulting (Canada) on behalf of Ecofish.
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36. Wood, J., D.J. Tollit, and **R. Joy**. 2019. ECHO Slowdown 2018: Ambient Noise and SRKW Acoustic Detections – Report. Prepared by SMRU Consulting for the ECHO Program of Vancouver Fraser Port Authority.
35. Wood, J., D.J. Tollit, J. Turner, and **R. Joy**. 2019. Understanding the causes of changes in ambient noise levels. Prepared for the ECHO Program of Vancouver Fraser Port Authority.
34. **Joy, R.**, J. Wood, and D.J. Tollit. 2019. Spatial-temporal distribution of adult Chinook salmon in Southern resident killer whale habitat. Prepared by SMRU Consulting for the Ecosystem Sciences Division, Science Branch, Department of Fisheries and Oceans.
33. **Joy, R.**, J. Wood, and D.J. Tollit. 2018. Force Marine Mammal Environmental Effects Monitoring Program – 2nd Year (2018) Monitoring Report. Prepared by SMRU Consulting (Canada) on behalf of FORCE, Oct 11, 2018.
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19. Sparling, C., C. Sams, S. Stephenson, **R. Joy**, J. Wood, J. Gordon, D. Thompson, R. Plunkett, B. Miller and T. Götz. 2015. The use of acoustic deterrents for the mitigation of injury to marine mammals during pile driving for offshore wind farm construction. ORJIP Project 4: Stage 1 of Phase 2. SMRUC-TCT-2015-006, Prepared for Scotland’s Carbon Trust.
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17. Wood, J., **R. Joy**, D.J. Tollit, and B. Miller. 2015. Killer Whale Behavioural Response Estimates to Commercial Vessel Traffic in the Western Juan de Fuca Strait. Prepared for Port Metro Vancouver.
16. **Joy, R.**, B. Miller, D.J. Tollit, and J. Wood. 2014. Proposed Roberts Bank Terminal 2 Draft Technical Report: Southern Resident Killer Whale Noise Exposure Study. Prepared for Port Metro Vancouver.
15. **Joy, R.** 2014. Review of The Warbler Guide by Tom Stephenson and Scott Whittle. 2013. Princeton University Press, Princeton, N.J. 560 pages. ISBN 9780691154824. Journal of Field Ornithology, 85: 108.
14. Gryba, R., E.J. Gregr, **R. Joy**, and A.W. Trites. 2014. Predicted distributions and biomass of walleye pollock, Pacific cod and Atka mackerel within Steller sea lion critical habitat in Alaska. Fisheries Centre Working Paper 2014-29, UBC, Vancouver, B.C., Canada. [Available at <http://www.fisheries.ubc.ca/biblio/type/1001>].
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5. **van den Driessche\*, R.**, M. Mather, L. Crampton, and T. Chatwin. 1997. An inventory of bats in Clayoquot Sound, Vancouver Island, British Columbia. Ministry of Environment Working Report No. PA-96-488-IN.
4. Joy, J.B., **R. van den Driessche\***, and S.D. McConnell. 1995. Population and habitat inventory of White-headed Woodpeckers in South Okanagan, BC Ministry of Environment, Lands and Parks. Technical Report. 26 pp. Plus appendices.
3. **van den Driessche\*, R.** and T. Ethier. (eds.) 1997. Standardized inventory manual for components of British Columbia's Biodiversity (Vs 1.1): Small Mammals. Resources Inventory Committee, Ministry of Environment, Lands and Parks, Victoria, BC.
2. **van den Driessche\*, R.** and T. Ethier. (eds.) 1997. Standardized inventory manual for components of British Columbia's Biodiversity (Vs 1.1): Macrofungi including the phyla Ascomycota and Basidiomycota. Resources Inventory Committee, Ministry of Environment, Lands and Parks, Victoria, BC.
1. Ethier, T. and **R. van den Driessche\***. (eds.) 1997. Standardized inventory manual for components of British Columbia's Biodiversity (Vs 1.1): Terrestrial Arthropods. Resources Inventory Committee, Ministry of Environment, Lands and Parks, Victoria, BC.

\* Note my birth name was **van den Driessche**

## Invited Talks, Conference & Workshop Presentations

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### INVITED PRESENTATIONS (N=25)

HQP are underlined: students and postdocs

26. **Joy, R.** *Oceanographic change and killer whale-prey dynamics: Emerging drivers of human-wildlife conflict.* North Pacific Marine Science Organization :PICES. *Anticipated October 2026*
25. **Joy, R.** April 2026. *Building a real-time forecasting system for tracking whales.* Enabling Research Horizons workshop. SFU's Climate Innovation, SFU.
24. **Joy, R.** August 2025. *Statistics, Data Science, and AI to Enrich Whale Conservation: A real-time forecasting system of whale movement in a busy commercial shipping corridor.* Invited Presentation at the Joint Statistical Meeting, Nashville, Tennessee.
23. **Joy, R.** July 2025. *Orcas on the Move: Forecasting movement of Southern Resident killer whales in the Salish Sea.* Invited Presentation at the Gordon Research Conference on Movement Ecology, Ventura, California.
22. **Joy, R.** June 2025. *WHALES NSERC CREATE : Whale Habitat & Acoustic Learning for Ecosystem Sustainability.* Pacific Ocean Neutrino Experiment (P-ONE) Collaboration Meeting. SFU Department of Physics.
21. Padovese, B., F. Frazão and **R. Joy**. May 2025. *Building an operational forecasting system for Southern Resident killer whales in the Salish Sea.* Invited Joint Presentation to the Port of Vancouver, ECHO Program.
20. Houweling, A., R. Joy and R. Tibshirani. May 2025. *Machine Learning to Classify Southern Resident killer whale clicks in the Salish Sea.* Invited Joint Presentation to the Port of Vancouver, ECHO Program.
19. Lin, T.-W., P. Thompson and **R. Joy**. February 2025. *HALLO: Building an operational forecasting system for Southern Resident killer whales .* Invited Joint Presentation to the Port of Vancouver, ECHO Program.
18. **Joy, R.** November 2024. *Building an Operational Forecast System for Killer Whale Movement in the Salish Sea.* Department of Statistics Seminar Series, UBC.
17. Murphy, O., R. Fairfield Checko, M. Young, L. Laternus, T.-W. Lin, B. Padovese and **R. Joy**. January 2024. *Analysis of Southern Resident Killer Whale Management Measures Surrounding Saturna Island.* Invited Joint Presentation to the Southern Resident Killer Whale Multi-Nation Tier II Meeting Hosted by Technical Whale Protection Policy – West Coast Branch, Transport Canada.
16. **Joy, R.** November 2023. *Orcas on the Move: Building an Operational Forecast System for SRKW Movement in the Salish Sea.* Department of Statistics Seminar Series, Simon Fraser University.
15. **Joy, R.** October 2023. *Eagle-eyed predators, Cormorant colonies and Balancing on bridges.* Pacific Wildlife Research Centre Seminar Series, Environment and Climate Change Canada.
14. **Joy, R.** September 2023. *Orcas on the Move: Building an Operational Forecast System for SRKW Movement in the Salish Sea.* School of Environmental Science Seminar Series, Simon Fraser University.
13. **Joy, R.** June 2023. *Forecasting Movement of Southern Resident Killer Whales in the Northeast Pacific.* Centre National de la Recherche Scientifique, Centre d'Études Biologiques de Chizé, Université de la Rochelle, France.
12. **Joy, R.** June 2023. *Forecasting Movement of Southern Resident Killer Whales in the Northeast Pacific.* École Nationale Supérieure de Techniques Avancées (ENSTA) Bretagne, France.
11. **Joy, R.** March 2023. *Orca Occupancy in the Salish Sea.* Vital Signs Workshop: Aligning Canada and US Metrics and Methods for Killer Whales of the Salish Sea.
10. **Joy, R.** February 2023. *Double-Crested Cormorants in the Salish Sea: Paradise Lost?* Les Ecologistes Seminar Series, Department of Biological Sciences, SFU.
9. **Joy, R.** November 2022. *Novel data inputs for forecasting movement of whales in the Salish Sea. Detecting and Monitoring Megafauna from Space: Exploring Opportunities for the Northeast Pacific.* Public Webinar, Ocean Decade Collaborative Center for the NE Pacific, Tula Foundation.
8. **Joy, R.,** S. Bergner, D. Campbell, M. Dowd, F. Frazão<sup>+</sup>, O. Kirsebom, P. Nguyen Hong Duc<sup>+</sup>, M. Randon<sup>+</sup>, A. Riera, S. Veirs, V. Veirs, J. Wladichuk<sup>+</sup> and H. Yurk. December 2021. *Integrating visual and acoustic observations to build an 'intelligent' killer whale movement forecast system.* The Acoustical Society of America.

7. **Joy, R.** August 2021. *Challenges in building a Real-Time Forecast System for Movement of Whales Near Coastal Shipping Lanes*. SFU Big Data Hub: Advances in Marine Data Sciences Event.
6. **Joy, R.** December 2019. *Statistics in Science and Policy: A case study of the Southern Resident Killer Whales*. Departmental Seminar, Department of Statistics and Actuarial Science, SFU.
5. **Joy, R.** November 2019. *Statistics in Science and Policy: A case study of the Southern Resident Killer Whales*. Departmental Seminar, Department of Mathematics and Statistics, University of Victoria.
4. **Joy, R.** November 2018. *Managing Noise Disturbance in Southern Resident Killer Whale Habitat in the Salish Sea*. Pacific Wildlife Research Centre Seminar Series at Canadian Wildlife Service, ECCC.
3. **Joy, R.,** M.G. Dowd. B.C. Battaile, P.M. Lestenkof, J.T. Sterling, A.W. Trites, and R.D. Routledge. June 2016. *At-sea behaviour of northern fur seals in the Bering Sea*. International Statistical Ecology Conference.
2. **Joy, R.,** M.G. Dowd. B.C. Battaile, P.M. Lestenkof, J.T. Sterling, A.W. Trites, and R.D. Routledge. May 2015. *Methodology for analyzing at-sea dive behaviour of northern fur seals in the Bering Sea*. Peter Wall International Research Roundtable.
1. **Joy, R.** November 2014. *Statistical Interactions of Science with the Community*. Science World. Coastal Connections.

#### CONFERENCE SESSION MODERATOR (N=1)

1. Adrean, L. and **R. Joy**. February 2022. *Session Moderators, West Coast Offshore Wind Panel*. Pacific Seabird Conference.

#### RESEARCH WORKSHOP ORGANISER (N=2)

2. Nadege, N., L. Izard and **R. Joy**. Planned July 2026. *Ocean Computational Ecology And Numerical Statistics*, Simon Fraser University.
1. **Joy, R.**, P. Nguyen Hong Duc, F. Frazão, and H. Yurk. August 2022. *A workshop in harnessing the power of underwater hydrophone data for detecting whales in an era of Forecast Models, Machine Learning, Cluster-based Computing, and Citizen Science Engagement*. Simon Fraser University.

## Contributed Presentations

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### CONFERENCE AND WORKSHOP PRESENTATIONS (N=150); WITH HQP FROM SFU (N=64)

HQP are underlined: students and postdocs. The presenting author is listed as the first author.

151. Lin, T.-W., M. Dowd, and **R. Joy**. *Data-assimilative state-space modelling of killer whale movement with stochastic speed and directional processes*. International Statistical Ecology Conference, Mérida, México. *Anticipated January 2027*
150. Laternus, L. and **R. Joy**. Society of Marine Mammology Conference, San Juan, Puerto Rico. *Anticipated October 2026*.
149. Saxvik, N. and **R. Joy**. Management mitigations for SRKW have negative consequences for TKW. Society of Marine Mammology Conference, San Juan, Puerto Rico. *Anticipated October 2026*.
148. Mendez-Bye, A. T. Jeanniard-du-Dot, N. Fonvieille, X. Bordeleau, J. Vacquié-Garcia, Mike Hammil and **R. Joy**. *Diving Plasticity: Differences between two breeding stocks of Hooded Seals in a rapidly changing climate*. Society of Marine Mammology Conference, San Juan, Puerto Rico. *Anticipated October 2026*.
147. Palmer, K., and **R. Joy**. Killer Whale Ecotype Classification. Society of Marine Mammology Conference, San Juan, Puerto Rico. *Anticipated October 2026*.
146. Houweling, A., **R. Joy** and R. Tibshirani. *Automated Detection and Classification of Southern Resident Killer Whale Echolocation Clicks in the Salish Sea*, Society of Marine Mammology Conference, San Juan, Puerto Rico. *Anticipated October 2026*.
145. Chavarria Sosa, K., S. Broadley, J. Anderson, I. Sahay, and **R. Joy**. Time-lapse monitoring of Double-crested Cormorant colonies in the Georgia Strait. Pacific Seabird Conference. February 2026.
144. Mendez-Bye, A., T. Jeanniard du Dot, and **R. Joy**. *Climate change impacts on the vertical habitat use of the hooded seal in the Arctic*. Presentation to the Doctoral School at La Rochelle Université, Centre d'Etudes Biologiques de Chizé. May 2025.
143. Houweling, A., **R. Joy** and R. Tibshirani. May 2025. *Machine Learning to Classify Southern Resident killer whale Clicks in the Salish Sea*. European Cetacean Conference, Ponta Delgada, Portugal.
142. **Joy, R.**, F. Frazão, A. Houweling, T.-W. Lin, P. Nguyen Hong Duc, B. Padovese, K. Palmer, M. Randon and P. Thompson. November 2024. *Orcas on the Move*. 31st Annual Marine Mammal Symposium, UBC. November 2024
141. Thompson, P., H. Yurk, M. Dowd, and **R. Joy**. *Uncovering southern resident killer whale movement patterns using opportunistic sightings data*. 31st Annual Marine Mammal Symposium, UBC. November 2024.
140. Lin, T.-W., M. Dowd, and **R. Joy**. *Forecasting the trajectories of Southern Resident Killer Whales with stochastic continuous-time movement models*. Society of Marine Mammology Conference, Perth, Australia. November 2024.
139. Thompson, P., H. Yurk, M. Dowd, and **R. Joy**. *Uncovering Southern Resident killer whale movement patterns using opportunistic sightings data*. Society of Marine Mammology Conference, Perth, Australia. November 2024.
138. Mendez-Bye, A., **R. Joy**, J. Vacquie-Garcia, M. Hammill, C. Hamilton, G. Stenson, L. Folkow, A. Blix, K. Kovacs, C. Lydersen, and T. Jeanniard du Dot. *Tides of change: Hooded seal diving behaviours over the past 30 years under pressures of climate change*. Society of Marine Mammology Conference, Perth, Australia. November 2024.
137. Tollit, D.J., Z. Li, F. Wilder, A.O. MacGillivray, J. McIntyre, K. Trounce, **R. Joy**, and J. Wood. *Understanding the biological value of voluntary vessel slowdowns to Southern Resident killer whales in core Pacific Northwest habitat: Comparing new acoustic space metrics with behavioural response-based metrics*. Society of Marine Mammology Conference, Perth, Australia. November 2024.
136. Grandidier, C., T. Jeanniard du Dot, and **R. Joy**. *An introduction to hooded seal ecology*. School of Environmental Science Seminar Series, SFU, Burnaby. October 2024.
135. Mendez-Bye, A., T. Jeanniard du Dot, and **R. Joy**. *Assessing the effects of climate change on vertical habitat of hooded seals in the North Atlantic*. School of Environmental Science Seminar Series, SFU, Burnaby. October 2024.

134. Frazão, F., O.S. Kirsebom, **R. Joy**, and M. Dowd. *Comparing acoustic representations for deep learning-based classification of underwater acoustic signals: a case study with Orca vocalizations.* International Conference on Underwater Acoustics. Bath, UK. July 2024.

133. Padovese, B., and **R. Joy**. *An open-source deep learning model for Fin Whale classification*. Journées des Jeunes Bioacousticiens. Brest, France. June 2024.
132. Houweling, A., and **R. Joy**. *Who clicked in the Salish Sea?* Journées des Jeunes Bioacousticiens. Brest, France. June 2024.
131. Padovese, B., F. Frazão, and R. Gehrman, O. Kirsebom, and **R. Joy**. *From Stationary to Mobile listening platforms: Adapting deep learning models for North Atlantic right whale upcall detection*. Detection Classification Localisation Distance Estimation Conference, Rotherdam, The Netherlands. June 2024.
130. Frazão, F., O.S. Kirsebom, B. Padovese, **R. Joy**, and M. Dowd. *An open-source deep learning model for North Atlantic right whale gunshot identification*. DCLDE Conference, Rotherdam, The Netherlands. June 2024.
129. Frazão, F., O.S. Kirsebom, A. Houweling, J. Wladichuk<sup>+</sup>, J. Kanes, **R. Joy**, and M. Dowd. *Using a sequence deep learning model to increase the acoustic context of a killer whale detector*. 186th Meeting of the Acoustical Society of America, Ottawa, Canada. May 2024.
128. Broadley, S., L. Lalach, and **R. Joy**. *Bridging Success*. Pacific Seabird Conference, Seattle, Washington, February 2024.
127. Broadley, S. *Bridging Success: Navigating the recovery of the Double-Crested Cormorant in the Strait of Georgia amid urban and ecological challenges*. IDEAS Symposium, SFU, February 2024.
126. Fairfield-Checko, R. *Kelp Help! Do you see what I sea?*. IDEAS Symposium, SFU, February 2024.
125. McNeilly, J. *Sablefish are on the menu for Southern Resident Killer Whales, but at what cost?* IDEAS Symposium, SFU, February 2024.
124. Murphy, O., R. Fairfield Checko, M. Young, L. Laturus, T.-W. Lin, B. Padovese and **R. Joy**. *Analysis of Southern Resident Killer Whale Management Measures Surrounding Saturna Island*. SFU Bi-weekly seminar series on Bioacoustics, Cetaceans and Advanced Computing. February 2024.
123. Fairfield Checko, R. *Multi-year marine mammal observations in and around the Saturna Island Interim Sanctuary Zone*. 31<sup>st</sup> B.C. Marine Mammal Symposium, November 2023.
122. McNeilly, J. *Sablefish are on the menu for Southern Resident Killer Whales, but at what cost?*. 31<sup>st</sup> B.C. Marine Mammal Symposium, November 2023.
121. Young, M. *Optimizing Techniques for Vessel Adherence Monitoring and Whale Detection in the Saturna ISZ*. 31<sup>st</sup> B.C. Marine Mammal Symposium, November 2023.
120. Clarke, C.M.K., V. Rani, E. Stredulinsky, S. Toews, M. Bouvier, D. Smyth, **R. Joy**, S.J. Thornton. *A marine reserve reduces vessel presence, with implications for Northern Resident Killer Whale (*Orcinus orca*) beach rubbing behaviour*. Coastal Zones Canada Conference, Victoria, BC. June 2023.
119. Stapleton, R. *Monitoring nest success of Double-crested Cormorants within the Strait of Georgia*. 44<sup>th</sup> Annual Pacific Ecology and Evolution Conference, April 2023.
118. Murphy, O., and **R. Joy**. *Analysing marine vessel noise impacts on acoustic behaviour of endangered Southern Resident killer whale*. 44<sup>th</sup> Annual Pacific Ecology and Evolution Conference, April 2023.
117. Stapleton, R., L. Cowen, R. Wilkin, J. Cragg, A. Lenske, G. McClelland, and **R. Joy**. *Multi-event modelling shows variable nest success for the at-risk Double-crested Cormorant population within the Strait of Georgia*. Pacific Seabird Conference, Scripps Institute of Oceanography, California. February 2023.
116. Wilkin, R., J. Anderson, R. Stapleton, J. Cragg, G. McClelland, A. Lenske, and **R. Joy**. *Deep Learning of orthomosaic images is an efficient tool for monitoring nest success of an urban seabird colony*. Pacific Seabird Conference, Scripps Institute of Oceanography, California. February 2023.
115. M. Dowd , T.-W. Lin, and **R. Joy**. *Towards Predicting Whale Movement*. Machine learning advances for marine acoustics and imagery data workshop. Dalhousie University. November 2022.
114. Dowd, M. and **R. Joy**. *Overview: Elements of whale detection using acoustics*. Workshop on Machine Learning and Movement Models. Burnaby, BC. August 2022.
113. Dowd, M., T.-W. Lin and **R. Joy**. *Towards Predicting Whale Movement. Machine learning advances for marine acoustics and imagery data workshop*. Dalhousie University. November 2022.

112. Frazão, F., O. Kirsebom, M. Dowd, and R. Joy. *Open-source deep learning models for detection and classification of orcas.* Workshop on Machine Learning and Movement Models, Burnaby, BC. August 2022.
111. Nguyen Hong Duc, P., D. Campbell, and R. Joy. *Characterizing southern resident killer whale (SRKW) calls using a particle filter for frequency ridge extraction.* Workshop on Machine Learning and Movement Models. Burnaby, BC. August 2022.
110. Toews, S., J. Watson, R. Joy, E. Stredulinsky, C. Konrad, and S. Thornton. *Temporal Shifts in Habitat Preference of Southern Resident Killer Whales: Impacts of Prey Abundance.* Conference of the Society for Marine Mammals. Palm Beach, Florida. August 2022.
109. Randon, M., M. Dowd, and R. Joy. *A real-time data assimilative forecasting system for animal tracking.* Conference of the Society for Marine Mammals. Palm Beach, Florida. August 2022.
108. Ryder, M., C. Booth, C. Oedekoven, D. Harris, R. Joy, T. Marques, L. Marshall, and L. Thomas. *Passive Acoustic Monitoring Power Analysis: A tool for designing an acoustic monitoring program.* International Conference on the Effects of Noise on Aquatic Life. Berlin, Germany. July 2022.
107. Rani, V., M. Bouvier, C. Konrad Clarke, R. Joy, and S.J. Thornton. *Effects of vessel presence on Northern Resident killer whale rubbing behaviour.* Salish Sea Ecosystem Conference. April 2022.
106. Bouvier, M., V. Rani, H. Yurk, C. Konrad Clarke, S.J. Thornton, and R. Joy. *Characterization of Northern Resident killer whale (Orcinus orca) call types and source levels during beach rubbing.* Salish Sea Ecosystem Conference. April 2022.
105. Quayle, L., K. Baril, A. Gheibi, SIMRES, SGIWSN, and R. Joy. *Eyes on the Water: Citizen Science in the Salish Sea.* Salish Sea Ecosystem Conference. April 2022.
104. Randon, M., M. Dowd, and R. Joy. *A real-time data assimilative forecasting system for Southern Resident killer whales in the Salish Sea.* Salish Sea Ecosystem Conference. April 2022.
103. Randon, M., M. Dowd, and R. Joy. *Can ecological forecasting help mitigate the risk of collision between whales and commercial vessels? The case of the endangered Southern Resident killer whales.* International Statistical Ecology Conference. 2022
102. Randon, M., M. Dowd, and R. Joy. *A real-time forecasting system to mitigate the risk of collision between whales and commercial vessels.* European Cetacean Society. 2022
101. Stapleton, R., R Wilkin, M Ong and R. Joy. *Photogrammetry results and future research on the Double-crested Cormorant Within the Salish Sea.* Mitlenatch Island Stewardship Workshop. February 2022.
100. Frazão, F., P. Nguyen Hong Duc, O. Kirsebom, R. Joy and S. Matwin. *Comparing snapshot and sequence ANN: A study case with blue whales.* DCLDE Conference, On-line March 2022.
99. Wilkin, R., M. Ong, L. Cojocar, J. Anderson, J. Cragg, G. McClelland and R. Joy. *Machine learning as a tool for monitoring seabird nesting colonies.* Pacific Seabird Conference, On-line March 2022.
98. Kirsebom, O.S., S. Bergner, D. Campbell, M. Dowd, F. Frazão, R. Joy, P. Nguyen Hong Duc<sup>+</sup>, B. Padovese, M. Randon, A. Riera, S. Sakib, S. Veirs, V. Veirs, J. Wladichuk<sup>+</sup>, and H. Yurk. *Open-source deep learning models for acoustic detection and classification of orcas.* Detection, Classification, Localisation, and Density Estimation (DCLDE) International Workshop. Oahu, Hawaii. March 2022.
97. Sakib, S., S. Bergner, D. Campbell, M. Dowd, F. Frazão, J. MacAulay, R. Joy, O. S. Kirsebom, P. Nguyen Hong Duc, B. Padovese, M. Randon, A. Riera, S. Veirs, V. Veirs, J. Wladichuk<sup>+</sup> and H. Yurk. *Open-source deep learning models for acoustic detection and classification of orcas.* Acoustic Society of America. Seattle, WA. December 2021.
96. Nguyen Hong Duc, P., D. Campbell, and R. Joy. *Characterizing Southern Resident killer whale calls using a particle filter for frequency contour extraction.* Acoustic Society of America. Seattle, WA. December 2021.
95. Frazão, F., S. Bergner, D. Campbell, M. Dowd, R. Joy, O. S. Kirsebom, P. Nguyen Hong Duc, B. Padovese, M. Randon, A. Riera, S. Sakib, S. Veirs, V. Veirs, J. Wladichuk<sup>+</sup> and H. Yurk. *Novel software for deep-learning based acoustic data analysis.* Acoustic Society of America. Seattle, WA. December 2021.
94. Meszaros, K., K. Roessingh, and R. Joy. *Birds of a feather: Non-invasive sampling reveals British Columbia's Sand-hill Cranes don't all flock together.* Provincial Working Group 'Threat' Series. February 2021.

93. Yurk, H., S. Berger, M. Randon, and **R. Joy**. *Using big (acoustic) data, neural networks and artificial intelligence in the conservation of Southern Resident killer whales*. Invited by the Port of Vancouver ECHO Program. February 2021.
92. Quayle, L., H. Yurk, P. Nguyen Hong Duc and **R. Joy**. *Assessing vessel related threats on whales in Boundary Pass*. Canadian Society for Ecology and Evolution. August 2021.
91. Ong, M., M. Randon, T. Chatwin, J. Cragg, G. McClelland, and **R. Joy**. *Photogrammetric monitoring of nesting cormorants in the Salish Sea*. Canadian Society for Ecology and Evolution. August 2021.
90. Campbell, D., P. Nguyen Hong Duc, and **R. Joy**. *Characterizing whale calls from underwater acoustic recordings*. 6<sup>th</sup> Canadian Conference in Applied Statistics. Concordia U., July 2021.
89. Randon, M., M. Dowd, and **R. Joy**. *Where are they going? A real-time forecasting system for animal tracking*. The 7<sup>th</sup> Annual SFU Post Doc Research Day. March 2021.
88. Ong, M., M. Randon, T. Chatwin, J. Cragg, G. McClelland, and **R. Joy**. *Photogrammetric monitoring of Double-crested cormorants nesting sites on Ironworkers Memorial Bridge in Vancouver*. Pacific Seabird Conference. February 2021.
87. Randon, M., M. Dowd and **R. Joy**. December 2020. *A real time forecasting system to limit vessel disturbances on the endangered Southern Resident killer whales*. Fisheries and Oceans 'Science Talk' Series.
86. Berger, S., and **R. Joy**. December 2020. *Using big data and A.I. in conservation of endangered killer whales*. Big Data and A.I.: GovTech Summit.
85. Quayle, L., and **R. Joy**. August 2020. *Observations in a Whale Sanctuary*. Saturna Island Marine Research and Education Society, SEATalk Series.
84. Akporuno, O., T. Reid, S. Chartrand, and **R. Joy**. *Assessing macro-benthic invertebrate communities in dendritic tidal channels of a berm impacted area of the Nanaimo River Estuary*. Salish Sea Ecosystem Conference.
83. Cummings, E., A. Harris, K. Angadi, H. Yurk, R. Osborne, and **R. Joy**. *Developing a predictive movement model to decrease the ship strike risk in Southern Resident killer whale critical habitat*. Salish Sea Ecosystem Conference.
82. Harris, A.S., T. Reid, and **R. Joy**. *Restoring eco-geomorphic processes and plant community trajectories in the Nanaimo River Estuary*. Salish Sea Ecosystem Conference.
81. **Joy, R.**, R. Schick, T. Margolina, M. Dowd, J. Joseph, and L. Thomas. *Fine-scale 3-D whale movement: A simulation model to assess the impact of noise exposure to naval exercises in range*. Conference of the Society for Marine Mammals, Barcelona, Spain. December 2019.
80. Konrad, C.M., M. Neves, **R. Joy**, S. Vagle, S. Thornton. *Effectiveness of vessel traffic displacement to mitigate anthropogenic noise on southern resident killer whales in the Juan de Fuca Strait*. Conference of the Society for Marine Mammals, Barcelona, Spain. December 2019.
79. Tollit, D.J., J. Wood, and **R. Joy**. *Southern Resident Killer Whale noise risk assessment and mitigation efficacy assessments*. Conference of the Society for Marine Mammals, Barcelona, Spain. December 2019.
78. Trounce, K., O. Robinson, A. MacGillivray, D. Hannay, J. Wood, D. Tollit, **R. Joy**. *The effects of vessel slowdown on foraging habitat of the southern resident killer whales*. Effects of Noise on Aquatic Life, Den Haag, July 2019.
77. **Joy, R.** D.J. Tollit, J. Wood, A. MacGillivray, Z. Li, K. Trounce, O. Robinson. *Killer whale noise-exposure model*. Effects of Noise on Aquatic Life, Den Haag, July 2019.
76. Harris, C.M., L. J. Wilson, **R. Joy**, C. G. Booth, J. Harwood. *A decision framework to identify populations that may be vulnerable to the population level effects of disturbance*. Effects of Noise on Aquatic Life, Den Haag, July 2019.
75. Wood, J.W., D.J. Tollit, **R. Joy**, O. Robinson, and K. Trounce. *Ship speed reduction is an effective mitigation for underwater noise effects*. 176<sup>th</sup> Acoustical Society of America, Victoria, BC. November 2018.
74. Booth, C., C. Oedekoven, D. Gillespie, J. MacAulay, T. Marques, D. Harris, L. Marshall, R. Plunkett, **R. Joy**, J. Wood, U. Verfuss, P. Tyack, M. Johnson, and L. Thomas. *AVADECAP: Assessing the Viability of Density Estimation for Cetaceans from passive Acoustic Fixed sensors throughout the Life Cycle of an Offshore E&P Field Development*. 6<sup>th</sup> International Meeting on the Effects of Sound in the Ocean on Marine Mammals. IOGP E&P Sound and Marine Life Joint Industry Programme. The Hague. September 2018.

73. Pirotta, E., C. Booth, D. Costa, E. Fleishman, C. Harris, **R. Joy**, S. Kraus, D. Lusseau, D. Moretti, L. New, R. Schick, L. Schwarz, S. Simmons, L. Thomas, C. Todd, P. Tyack, M. Weise, R. Wells, L. Wilson, and J. Harwood. *Understanding the population consequences of disturbance – reviewing the current state of PCoD research*. 6th International Meeting on the Effects of Sound in the Ocean on Marine Mammals/IOGP E&P Sound and Marine Life Joint Industry Programme. The Hague. September 2018.
72. Southall, B.L., J. Amaral, C. Clark, B. Ellison, **R. Joy** and D. Tollit. *A Risk Assessment Framework to Evaluate the Potential Relative Effects of Noise on Marine Mammals*. 6th International Meeting on the Effects of Sound in the Ocean on Marine Mammals/IOGP E&P Sound and Marine Life Joint Industry Programme. The Hague. September 2018.
71. Thomas, L., T. Marques, D. Harris, C. Oedekoven, L. Marshall, P. Tyack, M. Johnson, D. Gillespie, K. Kim, S. Blackwell, A. Thode, G. Phillips, D. Moretti, C. Booth, **R. Joy**, J. Wood, and U. Verfuss. *Passive acoustic density estimation: methods evaluation and survey design*. 6th International Meeting on the Effects of Sound in the Ocean on Marine Mammals/IOGP E&P Sound and Marine Life Joint Industry Programme. The Hague. September 2018.
70. **Joy, R.**, R. Millikin, M. Harrison, J. Komaromi, P. Krannitz, N. Mahony, and M. Vander Haegen. *Defining Critical Habitat of Sage Thrashers in the northern periphery of their range: 20 years of monitoring in British Columbia and Washington State*. 27th International Ornithological Congress, Vancouver, Canada. August, 2018.
69. Millikin, R., T. Manning, **R. Joy**, B. Danielson, M. Harrison, J. Komaromi, and D. C. Henderson. *Evaluation of an unmanned aerial vehicle to assess critical habitat of the Sage Thrasher*. 27th International Ornithological Congress, Vancouver, Canada. August 2018.
68. **Joy, R.**, J. Watson, M. Auger-Méthé, S. Thornton, D. Tollit, and J. Wood. *Describing Southern Resident killer whale habitat use in the Salish Sea using multiple sources of data*. International Statistical Ecology Conference, St Andrews University, July 2-6, 2018.
67. Dowd, M., and **R. Joy**. *Towards Spatio-temporal state-space models for ecological dynamics*. International Statistical Ecology Conference, St Andrews University, July 2-6, 2018.
66. Sparling, C., J. Onoufriou, D. Thompson, B. Band, **R. Joy**, J. Wood, D. Gillespie, C. Malinka, J. Macaulay and G. Hastie. *Improving our predictions of collision risk for marine mammals and tidal turbines – towards a better understanding of the most critical factors*. Environmental Interactions of Marine Renewables Conference, Kirkwall, Orkney. April 2018.
65. Gillespie, D., J. Macaulay, C. Malinka, G. Hastie, **R. Joy**, and C. Sparling. *Passive Acoustic Monitoring of Cetacean Movement around Operational Tidal Turbines*. Environmental Interactions of Marine Renewables Conference, Kirkwall, Orkney, April 2018.
64. Wood, J., Tollit, D.J., **R. Joy**, A. MacGillivray, N. Koshure, K. Trounce, and O. Robinson. *Commercial ship versus whale watch boat noise: relative effects on Southern Resident Killer Whales*. Salish Sea Ecosystem Conference, Seattle, Washington, April, 2018.
63. **Joy, R.**, J Wood, C Sparling, D. J. Tollit, A. Copping, and B. McConnell. *Empirical measures of harbor seal behavior and avoidance of an operational tidal turbine*. 22nd Conference of the Society for Marine Mammals, Halifax, Nova Scotia. October 2017
62. Wood, J., D.J. Tollit, **R. Joy**, A. Redden, P. Porskamp, B. Sanderson, T. Boucher, M. Oldreive, A.-M. Belliveau, and F. C. Robertson. *Monitoring the potential effects of tidal turbines on porpoise in the Bay of Fundy using C-PODs*. 22nd Conference of the Society for Marine Mammals, Halifax, Nova Scotia. October 2017.
61. Malinka, C., D. Gillespie, J. Macaulay, **R. Joy**, and C. Sparling. *First in-situ passive acoustic monitoring for marine mammals during operation of a tidal turbine in Ramsey Sound, Wales*. 22nd Conference of the Society for Marine Mammals, Halifax, Nova Scotia. October 2017.
60. Tollit, D. J., **R. Joy**, J. Wood, A. MacGillivray, N. Koshure, K. Trounce, and O. Robinson. *Commercial ship versus whale watch boat noise: Relative disturbance effects on Southern Resident killer whales*. 22nd Conference of the Society for Marine Mammals, Halifax, Nova Scotia. October 2017.
59. Robertson, F., **R. Joy**, I. Côté, J. Wood, and D.J. Tollit. *Integrating environmental effects into marine renewable energy development: a case study of tidal turbines and marine mammals*. SFU Climate and Energy Research Day: exploring, water and energy nexus. Burnaby, BC. April 2017.
58. **Joy, R.**, J. Wood, B. Miller, A. MacGillivray, S. Meier, and D.J. Tollit. *Development of a simulation model for estimating behavioural responses to vessel noise: A case study with the Southern Resident killer whale*. Salish Sea Ecosystem Conference, Vancouver, BC. April 2016.

57. Smith, J.L., E. Leung, R. Rankin, **R. Joy**, L. Chilvers, H. Finn and N. Loneragan. *Sex differences in the fine-scale habitat use of juvenile New Zealand sea lions (Phocarcos hookeri) in relation to trawl fisheries: implications for conservation management in a declining population*. 21st Conference of the Society for Marine Mammals, San Francisco, California. December 2015.
56. **Joy, R.**, M.G. Dowd, B.C. Battaile, P.M. Lestenkof, J.T. Sterling, A.W. Trites, and R.D. Routledge. *Methodology for analyzing at-sea dive behaviour of northern fur seals in the Bering Sea*. 21st Conference of the Society for Marine Mammals, San Francisco, California. December 2015.
55. Porter, L. and **R. Joy**. *The response of Chinese white dolphins to construction related to the Hong Kong-Zhuai-Macao bridge*. 21st Conference of the Society for Marine Mammals, San Francisco, California. December 2015.
54. Wood, J., D.J. Tollit, **R. Joy**, B. Miller, C. Booth, S. King, and R. Williams. *Defining metrics to quantify noise exposure in Southern Resident killer whales*. 21st Conference of the Society for Marine Mammals, San Francisco, California. December 11-18, 2015
53. Roessingh, K. and **R. Joy**. *Sandhill Cranes of coastal British Columbia: Nesting habitat and foraging studies*. 16th Alaska Bird Conference, Juneau, Alaska. December 9-11, 2014.
52. Tollit, D.J., L.W. Fritz, K.M. Miller, A.D. Schulze, T.K. Zeppelin, T.S. Gelatt, J. Thomason, **R. Joy**, and W.A. Walker. *Diet of endangered Steller sea lions in the Aleutian Islands: New insights from DNA detections and bio-energetic reconstructions*. 21st Conference of the Society for Marine Mammals, San Francisco, California. December 2015.
51. **Joy, R.** and K. Roessingh. Population structure in the Pacific flyway of migratory Sandhill Cranes. Hakai Research Exchange, UBC. January 2015. 121. Muir, J.E., L.M. Ainsworth, **R. Joy**, R. Racca, Y. Bychkov, G. Gailey, V. Vladimirov, S. Starodymov, and K Bröker. *Western Gray Whale Distribution and Abundance during a 4-D Seismic Survey*. 20th Conference of the Society for Marine Mammals, Dunedin, New Zealand. December 2013.
50. **Joy, R.**, and R.D. Routledge. *A hierarchical Bayes model for incorporating uncertainties in data from marine mammal at-sea foraging tracks*. Fall 2013 SFU-UBC Workshop in Statistics. Vancouver, Canada. October 2013.
49. Ainsworth, L., J.E. Muir, R. Racca, **R. Joy**, G. Gailey, V. Vladimirov et al. *A case study in zero-inflation: a space-time model for whale densities in the presence of pulsed sound*. 23rd Conference of the International Environmetrics Society, Anchorage, Alaska, June 2013.
48. **Joy, R.**, and R.D. Routledge. *Estimating the effect of groundfish abundance and other spatial covariates on northern fur seal behaviour*. Joint Statistical Meeting, Montreal, August 2013.
47. **Joy, R.**, and Z. Sun. *Impact of human disturbances on habitat selection and on calf survival for forest-dwelling caribou*. 41st annual meeting of the Statistical Society of Canada, Edmonton, Alberta, May 2013.
46. Chatwin, T.A., **R. Joy** and A.E. Burger. *Set-back Distances to Protect Nesting and Roosting Seabirds off Vancouver Island from Boat Disturbance*. Pacific Seabird Group Conference, Portland, February 2013.
45. Trites, A.W., R. Grybda, **R. Joy**, and B. Battaile. *Is fishing for Atka mackerel responsible for the decline of Steller sea lions in the western and central Aleutian Islands?* 19th Conference of the Society for Marine Mammals, Tampa, Florida, November 2011.
44. Hui, T. R. Flinn, E.J. Gregr, **R. Joy** and A.W. Trites. *Steller sea lions and fisheries: Competition at sea?* 19th Conference of the Society for Marine Mammals, Tampa, Florida, November 2011.
43. **Joy, R.**, M.G. Dowd, and R. Routledge. *Applying State Space Methods to Northern Fur Seal foraging data*. Winter 2011 SFU-UBC Joint Graduate Student Workshop in Statistics. Vancouver, BC, Canada.
42. **Joy, R.**, M.Dowd, P. Lestenkof, B. Battaile, and A. Trites. *Identifying foraging habitat of lactating northern fur seals and the spatial overlap with commercial fisheries in the Eastern Bering Sea*. Fourth International Science Symposium on Bio-logging. 2011 Hobart, Australia.
41. A.W. Trites, R. Flinn, **R. Joy**, and B. Battaile. 2011. *Steller sea lion trends from 2000 to 2009 were not associated with Atka mackerel fishery indices in the western and central Aleutian Islands*. Marine Science in Alaska Symposium. January 2011. Anchorage, Alaska.
40. **Joy, R.** *Estimating parameters in State Space Models*. UBC Quantitative Fisheries Seminar Series, September 2010.
39. Trites, A.W., I. Takeomi, S. Brunner, and **R. Joy**. *Changes in Steller Sea Lion Skull Sizes: Testing the Nutritional Stress Hypotheses*. Canadian Society of Zoologists. May 17-21, 2010. Vancouver, BC, Canada.
38. **Joy, R.** and M.G. Dowd. *Analysis of marine animal movement data using state space models for behavioural inference*. 2010 Ocean Sciences Meeting. February 2010. Portland, Oregon

37. **Joy, R.** M.Dowd, J. Flemming, and P. Lestenkof. *Making sense of Northern Fur Seal dead reckoner tag data*. BC Marine Mammal Symposium, November, 2010, Vancouver, Canada.
36. Hui, T.C.Y., R. Flinn, E.J. Gregr, **R. Joy** and A.W. Trites. *Are there any hungry sea lions out there?* Alaska Marine Science Symposium, Anchorage, Alaska. January, 2010.
35. Hui, T.C.Y., R. Flinn, E.J. Gregr, **R. Joy** and A.W. Trites. *Are Steller sea lions (Eumetopias jubatus) affected by prey abundance in the western Gulf of Alaska and Aleutian Islands?* North Pacific Marine Science Organization Conference (PICES) Jeju, Korea 2009, and the Society for Marine Mammalogy Conference, Québec City, Canada, 2009.
34. Flinn, R., E.J. Gregr, **R. Joy**, and A.W. Trites. *Using dynamic descriptions of prey distributions to evaluate Steller sea lion critical habitat*. 18th Society for Marine Mammalogy Conference, Québec City, Canada, 2009, and Alaska Marine Science Symposium, Anchorage, Alaska. 2010.
33. Allen, P., A. W. Trites, **R. Joy**, D. Rosen, R. van Schie, L. Mazzaro, H. Katsumata, T. Yamamoto. *Tis the Season for Steller Sea Lions: Seasonal oscillations in the growth and food intake of Steller sea lions*. 18th Society for Marine Mammalogy Conference, Québec City, Canada, 2009.
32. Trites, A. W., T. Isono, S. Brunner, and **R. Joy**. *Changes in Steller Sea Lion Skull Sizes: Testing the Nutritional Stress Hypothesis*. 18th Society for Marine Mammalogy Conference, Québec City, Canada, 2009.
31. **Joy, R.**, M. Dowd, J. Flemming, and P. Lestenkof. *Statistical analysis of marine animal tracking data*. MITACS Spatial Ecology Workshop. February 23-24, 2009, Halifax, Canada.
30. Flinn, R., E.J. Gregr, **R. Joy**, and A.W. Trites. 2009. *Using dynamic descriptions of prey distributions to evaluate Steller sea lion critical habitat*. Marine Science Symposium, Anchorage, Alaska. January 19-23, 2009.
29. **Joy, R.** *The decline of the Steller sea lion: Challenges to addressing a dramatic signal in the dynamics of a marine ecosystem*. The International Environmetrics Society Meeting. June 8-13, 2008. Kelowna, Canada.
28. C. Svärd, A. Fahlman, **R. Joy**, D.A.S. Rosen, and A.W. Trites. *Effect of fasting on resting and diving metabolic rate in Steller sea lions (Eumetopias jubatus)*. Conference on Experimental Biology, San Diego, California. April 5-8, 2008.
27. Gill, V.S., A.J. Low, **R. Joy**, P.R. Harrigan, and V. Lima. *Accumulation of class drug-resistance among survivors and non-survivors in a large cohort of antiretroviral-naïve individuals*. Antiviral Therapy, 16th International HIV Drug Resistance Workshop. June 12-16, 2007, Barbados.
26. Hogg, R., **R. Joy**, et al. *Impact of social determinants of health on disease progression among persons initiating HAART in a universal health care setting*. 11th International Workshop on HIV Observational Databases, March 22-25, 2007. Monte Carlo, Monaco.
25. Guillemi, S., R. Harrigan, B. Yip, **R. Joy**, D. Dixon, M. Bath, L. Nicol, J.S.G. Montaner. *Exploring the impact of therapeutic drug monitoring (TDM) in patients receiving atazanavir-ritonavir (ATV/r) boosted regimens*. 4th IAS Conference on HIV Pathogenesis, Treatment and Prevention 22-25 July 2007, Sydney, Australia.
24. Hull, M., M. Harris, **R. Joy**, R. Harrigan, and J.S.G. Montaner. *Effect of CD4 nadir on the rate of cd4 cell count decline following treatment interruption*. 4th IAS Conference on HIV Pathogenesis, Treatment and Prevention, July 22-25, 2007, Sydney, Australia.
23. Harris, M., M. Hull, **R. Joy**, R. Harrigan, and J.S.G. Montaner. *Effect on plasma levels of lopinavir of switching from high dose lopinavir/ritonavir soft gel capsules (SGC) to tablet formulation*. 8th International Workshop on Clinical Pharmacology of HIV Therapy, April 16-18, 2007, Budapest, Hungary
22. Harris, M., **R. Joy**, N. Zalunardo, R. Werb, B. Yip, R. Hogg, and J.S.G. Montaner. *Predictors of creatinine (Cr) increase and drug discontinuation in patients receiving Tenofovir DF (TDF)*. 8th International Congress on Drug Therapy in HIV Infection Glasgow, UK, November 12-16, 2006.
21. Harris, M., **R. Joy**, N. Zalunardo, R. Werb, B. Yip, R. Hogg, and J.S.G. Montaner. *Predictors of creatinine (Cr) increase and drug discontinuation in a province-wide cohort of patients receiving Tenofovir DF (TDF)*. 8th International Workshop on Adverse Drug Reactions and Lipodystrophy in HIV, September 24-26, 2006, San Francisco, California.
20. Levin, A., **R. Joy**, O. Djurdjev, N. Zalunardo, R. Hogg, M. Harris, B. Yip, R. Werb, and J.S.G. Montaner. *Baseline GFR<60 ml/min is associated with increased mortality among HIV patients on antiretroviral therapy*. American Society of Nephrology 39th Annual Renal Week Meeting November 14-19, 2006, San Diego, California.

19. **Joy, R.**, B. Yip, J.S.G. Montaner, and R. Hogg. *Alternative sources of surveillance data. Insights from a population-based drug treatment program in British Columbia, Canada.* XVI International AIDS Conference, August 13-18, 2006, Toronto, Canada.
18. Phillips, P., B. Walker, **R. Joy**, and J.S.G. Montaner. *Comparison of histopathological findings in non-tuberculous mycobacterial immune reconstitution syndrome (NTM-IRS), disseminated MAC (DMAC), and tuberculosis (MTb).* XVI International AIDS Conference, August 13-18, 2006, Toronto, Canada.
17. Guillemi, S., A. Toulson, **R. Joy**, J. Toy, M. Harris, G. Bondy, L. Norman, B. Yip, R. Hogg, and J.S.G. Montaner. *Changes in lipid profile upon switching from a Lopinavir/r (LOP/r) to Atazanavir/r (ATZ/r) based HAART.* XVI International AIDS Conference, August 13-18, 2006, Toronto, Canada.
16. Guillemi, S., F. Ng, **R. Joy**, C. Rocha, M. Harris, G. Bondy, A. Belzberg, and J.S.G. Montaner. *High prevalence of reduced bone mineral density in hiv positive individuals.* XVI International AIDS Conference, August 13-18, 2006, Toronto, Canada.
15. Hull, M., **R. Joy**, R. Hogg, and J.S.G. Montaner. *Declines in CD4 cell counts during Treatment Interruption differ according to CD4 nadir.* XVI International AIDS Conference, August 13-18, 2006, Toronto, Canada.
14. Fielden, S.J., M.L. Rusch, A. Kaida, **R. Joy**, and R.S. Hogg. *Fertility and associated characteristics in a Canadian cohort of HIV+ women accessing antiretroviral therapy.* XVI International AIDS Conference, August 13-18, 2006, Toronto, Canada.
13. Harris, M., S. Ramirez, **R. Joy**, E. Phillips, F. Harris, J.P. Sabo, M. Kraft, and J.S.G. Montaner. *Effect of Lopinavir (LPV) and Ritonavir (RTV) dose adjustments on the pharmacokinetic (PK) interaction between LPV/r and Tipranavir (TPV).* Conference on Retroviruses and Opportunistic Infections, February 5-8, 2006, Denver, Colorado.
12. Villar del Saz, S., S. Guillemi, V. Montessori, **R. Joy**, S. Ramirez, M. Harris, and J.S.G. Montaner. *Assessing the impact of Tenofovir plus Lamivudine based highly active antiretroviral therapy (HAART) on Hepatitis B plasma DNA in HIV/HBV co-infected individuals.* HIV and Hepatitis Co-infection Workshop, January 12-14, 2006, Amsterdam, Holland.
11. Montaner, J.S.G., **R. Joy**, G. Larsen, M. Valyi, E. Walker, M. Harris. *Enfuvirtide (T20) plasma levels and injection site reactions (ISRs) using a novel needle-free gas-powered injection system (Biojector) for subcutaneous administration of T20 in treatment-experienced HIV+ patients.* 3rd IAS Conference on HIV Pathogenesis and Treatment, July 24 - 27, 2005, Rio de Janeiro, Brazil.
10. Palepu, A., M. Tyndall, **R. Joy**, T. Kerr, N. Press, E. Wood, J.S.G. Montaner, and R.S. Hogg. *Improved antiretroviral adherence and HIV treatment outcomes among HIV/HCV co-infected injection drug users.* 14th Annual Canadian Conference on HIV/AIDS Research, Vancouver, May 12-15, 2005, Vancouver, BC.
9. Palepu, A., M.W. Tyndall, **R. Joy**, T. Kerr, N. Press, E. Wood, J.S.G. Montaner, and R. Hogg. *Improved antiretroviral adherence and HIV treatment outcomes among HIV-infected drug users enrolled in methadone maintenance therapy.* Society of General Internal Medicine 28th Annual Meeting, May 11-14, 2005, New Orleans, Louisiana.
8. Harris, M., C. Alexander, **R. Joy**, S. Guillemi, E. Phillips, S. Langridge, R. Harrigan, and J.S.G. Montaner. *Effect on Atazanavir (ATV) and Ritonavir (rtv) Plasma Levels of Increasing ATV/r Daily Dosing from 300/100 mg to 300/200 mg and 400/200 mg.* 6th International Workshop on Clinical Pharmacology of HIV Therapy, April 28 - 30, 2005, Quebec City, Quebec.
7. Phillips, E., H. Cote, V. Montessori, **R. Joy**, and J.S.G. Montaner. *Predictors of inter and intra-individual variability in Atazanavir drug levels in an Atazanavir therapeutic drug monitoring program.* 6th International Workshop on Clinical Pharmacology of HIV Therapy, April 28 - 30, 2005, Quebec City, Quebec.
6. **Joy, R.**, D. Tollit, J. Laake, and A.W. Trites. *Examining the decline of Steller's sea lions in south-east Alaska: using simulations to evaluate reconstructions of diet from scat.* 14th Wakefield Fisheries Conference, September 30-October 2, 2004, Anchorage, Alaska.
5. **Joy, R.**, and A.W. Trites. *A power analysis describing the influence of sample size on the accuracy of diet reconstruction. How many scats is enough?* Marine Mammal Research Consortium Annual Meeting. September 2003, Vancouver, B.C.
4. **Joy, R.**, D. Tollit, J. Laake, and A.W. Trites. *Using Feeding Trials and Computer Simulations to assess error and bias in scat analysis.* Alaska Sea Lion Conference, January 14-18, 2003, Anchorage, Alaska.
3. **van den Driessche\*, R.**, and T.A. Chatwin. *Habitat selection by bats in temperate old-growth forests, Clayoquot Sound, British Columbia.* 28th Annual Symposium on Bat Research, October 28-31, 1998, Hot Springs, Arkansas.

2. Luszcz, T., and **R. van den Driessche\***. *Roost site selection of bats in a temperate old-growth forest, Clayoquot Sound, British Columbia, Canada*. 28th Annual Symposium on Bat Research, October 28-31, 1998, Hot Springs, Arkansas.
1. **van den Driessche\*, R.**, T.A. Chatwin, and M. Mather. 1997. *Inventory of bats in Clayoquot Sound, Vancouver Island, British Columbia, 1996, 1997*. 27th Annual Symposium on Bat Research, October 8-11, 1997, Tuscon, Arizona.

\* Note my birth name was **van den Driessche**

## Teaching Experience

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*\* indicates original course design and development*

### UNDERGRADUATE COURSES TAUGHT

- 2026 \*EVSC 495: Ocean Bioacoustics, Instructor
- 2025 EVSC 100: Introduction to Environmental Science, Instructor
- 2024-2025 \*EVSC 206 / 395: Coastal Marine Science, Instructor
- 2021-2025 \*EVSC 445: Environmental Data Analysis, Instructor

### VISITING CLASS LECTURES

- 2021-2025 EVSC 201: Environmental Science in Practice, SFU
- 2020 EVSC 400: Environmental Science Capstone, SFU
- 2006 HCEP 504: Application of Epidemiological Methods, UBC
- 2006 HCEP 400: Statistics for Health Research, UBC
- 2001 EVSC 401: Current Topics in Environmental Science, SFU

### DEVELOPMENT OF UNDERGRADUATE DEGREE

- 2021-2024 Coastal Marine Science and Management Program,  
Curriculum development for cross-disciplinary undergraduate degree

### GRADUATE COURSES TAUGHT

- 2026 \*EVSC 695: Ocean Bioacoustics, Instructor
- 2025 \*EVSC 691: From Hydrophone to Habitat, Instructor
- 2018-2023 \*EVSC 645: Environmental Data Analysis, Instructor
- 2023 \*INTE 7000: Acoustic Data Analysis, Remote Instructor at Dalhousie University
- 2019-2022 \*ECO 611: Concepts of Restoration and the Biological Environment, Instructor
- 2019 \*ECO 600: Rewilding agricultural ecosystems, Instructor

### MICROCREDENTIAL COURSES FACILITATED FOR GRADUATE STUDENTS

- 2026 Microcredential: Research Management Program, Beedie School of Business, SFU
- 2026 Microcredential: Indigenous Cultural Awareness Training, Knowledge Mobilisation Hub, SFU

### SKILLS BASED WORKSHOPS

- 2026 Ocean Computational Ecology And Numerical Statistics (OCEANS)  
, School of Environmental Science, SFU
- 2022 The Power of Underwater Hydrophone Data for Detecting Whales in an Era of Forecast  
Models, Machine Learning, Cluster-based Computing, and Citizen Science Engagement,  
School of Environmental Science, SFU
- 2019 Research Methods and Design Workshop, Ecological Restoration Grad Program, SFU
- 2008 Linear Models Workshop, Fisheries Centre, UBC
- 2006 Power Analysis Workshop, iCapture Centre, St. Paul's Hospital, Vancouver, BC

## Courses Taught At SFU

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*\* indicates original course design and development*

Semester	Course Number	Course Name	No. of Ugrad Students	No. of Grad Students
Spring 2026	*EVSC 495/695	Ocean Bioacoustics	13	4
	EVSC 489	Environmental Science Thesis I	2	0
Fall 2025	*EVSC 206/395	Coastal Marine Science	17	0
	*EVSC 445/695	Environmental Data Analysis	23	1
Spring 2025	EVSC 100	Introduction to Environmental Science	54	0
	*EVSC 691	Hydrophones to Habitat	0	14
Fall 2024	*EVSC 206/395	Coastal Marine Science	17	0
	*EVSC 445/695	Environmental Data Analysis	18	0
Spring 2024	*EVSC 206/395	Coastal Marine Science	16	0
	*EVSC 445/695	Environmental Data Analysis	14	1
Spring 2023	*EVSC 445/645	Environmental Data Analysis	9	18
	*INTE 7000	Acoustic Data Analysis @ Dalhousie Uni	0	1
Fall 2022	*ECO 611	Restoration and the Biological Environment	0	24
Spring 2022	*EVSC 445/645	Environmental Data Analysis	3	25
Fall 2021	*ECO 611	Restoration and the Biological Environment	0	25
Spring 2021	*EVSC 445/645	Environmental Data Analysis	9	25
Fall 2020	*ECO 611	Restoration and the Biological Environment	0	23
Spring 2020	*EVSC 645	Environmental Data Analysis	0	21
Fall 2019	*ECO 600	Rewilding agricultural ecosystems	0	1
	*ECO 611	Restoration and the Biological Environment	0	25
Spring 2019	*ECO 611	Restoration and the Biological Environment	0	25
Fall 2018	*ENV 645	Environmental Data Analysis	0	20
<b>Cumulative</b>	<b>Total</b>		<b>195</b>	<b>253</b>

## Service

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### GRADUATE STUDENT SUPERVISORY COMMITTEES (N=1) AND EXAMINING COMMITTEES (N=27)

- 2024+ **Rachel Sullivan-Lord**,  
Member of PhD Supervisory Committee, Biological Sciences
- 2025 **Sherry Young**,  
University Examiner, PhD Defense, Biological Sciences
- 2024 **Camryn Good, Chris Mahoney, Avazeh Dolatshahi, Jonathan Gosling, Ed Anderson**,  
University Examiner, MSc Defence, Ecological Restoration
- 2023 **Lola Gilbert**,  
External Examiner, PhD Defense, La Rochelle Université, France
- 2023 **Jacob Wright, Erica Harvey, Sarah Kent, Joshua Gooding, Samuel Pritchard**,  
University Examiner, MSc Defence, Ecological Restoration
- 2022 **Esmeralda Martinez, Douglas Van Loan, Pradeep Poudel**,  
University Examiner, MSc Defence, Ecological Restoration
- 2021 **Cassandra Harper, Kevin Hutchins**,  
MSc Defense Examiner, Ecological Restoration
- 2020 **Kate O'Neill, Emma Cummings, Doug Crocker, Andrea Le, Tehlu Singh**,  
University Examiner, MSc Defence, Ecological Restoration
- 2019 **Derek Fiddler, Ryley Corcoran, Sarah Bird, Luke Ridgeway, Ashley Westphal**,  
University Examiner, MSc Defence, Ecological Restoration

### SERVICE TO THE SCHOOL OF ENVIRONMENTAL SCIENCE AND THE ACADEMIC COMMUNITY

- 2026+ **Pacific Rim Initiative for Sustainable Marine Systems (PRISMS)**, Member of interdisciplinary ocean research network
- 2026 **CFI Innovation Fund**, SFU internal Reviews
- 2025-2026 **Tenure and Promotion Committee**, Member
- 2025-2026 **Canada-Chile-France (NSERC-ANID) Ocean Research Collaboration**, Member
- 2025 **NSERC CREATE grants**, NSERC Review Process
- 2025 **Adjudication Committee, Dean of Graduate Studies' Awards for Excellence**, Member
- 2024-2026 **Undergraduate Committee Curriculum, School of Environmental Science**, Member
- 2024-2025 **Seminar Series Committee**, Member
- 2023-2024 **Justice, Equity, Diversity and Inclusivity Committee**, Member
- 2022-2026 **Frontiers in Marine Science, Marine Conservation and Sustainability**, Editorial Board
- 2021-2025 **Ecological Restoration Graduate Program, School of Environmental Science**, Chair
- 2021-2024 **Coastal Marine Science and Management Ugrad Curriculum Committee**, Chair
- 2020-2023 **International Biometric Society, Western North American Region (WNAR)**, Board Member

### SERVICE TO THE LOCAL NATURALIST COMMUNITY

- 1999-2025 **Breeding Bird Atlas**, Volunteer with Bird Studies Canada
- 1990-2025 **Christmas Bird Counts**, Volunteer with National Audubon Society
- 2022-2023 **BC NoiseTracker Technical Committee**, Member
- 2021-2026 **Pacific Wildlife Foundation**, Associate Member
- 2014-2017 **Breeding Bird Atlas**, Volunteer with Bird Studies Canada
- 2007-2017 **Bat inventory for the Whistler Bioblitz**, Volunteer with Whistler Naturalists
- 2006-2017 **Public event: 'Wings on their Fingers'**, Volunteer with Meadowlark Nature Festival