

Brett Johnson

Hakai Institute
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Professional experience

2018–Present Scientific Data Specialist

Ecological Information Management, Integrated Ocean Observing System, and Technical Lead for the International Year of the Salmon Ocean Observation System, Hakai Institute, Tula Foundation, Victoria, BC, Canada

2015–2018 Program Biologist

Juvenile Salmon Program, Hakai Institute, Tula Foundation, Heriot Bay, BC, Canada

2014–2015 Research Assistant

Cutthroat Trout Estuarine Ecology, University of Northern British Columbia, Prince George, BC, Canada

2008–2013 Fish, Wildlife, and Forestry Field Technician

Lower Seymour Conservation Reserve, Watershed Management Division, Metro Vancouver, North Vancouver, BC, Canada

2005–2008 Engineer

39 Combat Engineer Regiment, Canadian Armed Forces, Department of National Defence, Chilliwack, BC, Canada

Education

2013–2015 Bachelors of Science Fisheries and Wildlife Management

University of Northern British Columbia,
Prince George, BC, Canada

2011–2013 Diploma of Technology Fish, Wildlife, and Recreation

British Columbia Institute of Technology,
Burnaby, BC, Canada

2010–2011 Certificate of Natural Resource Management

British Columbia Institute of Technology,
Burnaby, BC, Canada

2005–2006 Military Occupational Training Courses

Canadian Forces School of Military Engineering,
Gagetown, NB, Canada

Publications

Peer reviewed literature

- 2020** Brookson, C. B., M. Krkošek, B. P. V. Hunt, **B. T. Johnson**, L. A. Rogers, and S. C. Godwin. 2020. Differential infestation of juvenile pacific salmon by parasitic sea lice in British Columbia, Canada. Canadian Journal of Fisheries and Aquatic Sciences 77(12):1960–1968.

Technical reports

- 2020** Irvine, J.R., T. Beacham, C. Freshwater, S.C.H. Grant, S.G. Hinch, C. Holt, B.P.V. Hunt, **B. Johnson**, M. MacDuffee, V. Minke-Martin, J. Pendray, and J. Reynolds. 2020. 2020 update on Canadian research

- relevant to the 2016–2020 NPAFC Science Plan. NPAFC Doc. 1912. 14 pp. Fisheries and Oceans Canada, University of British Columbia, Hakai Institute, Raincoast Conservation Foundation, and Simon Fraser University (Available at <https://npafc.org>).
- 2019** Irvine, J.R., S. Akenhead, T. Beacham, C.M. Deeg, S.C.H. Grant, K.D. Hyatt, C. Holt, B.V.P. Hunt, **B.T. Johnson**, J. King, K.M. Miller, and C. Neville. 2019. *Update on Canadian research relevant to the 2016–2020 NPAFC Science Plan*. NPAFC Doc. 1841. 6 pp. Fisheries and Oceans Canada, University of British Columbia, and Hakai Institute (Available at <https://npafc.org>).
- 2019** **Johnson, B.T.**, J.C.L. Gan, S.C. Godwin, M. Krkosek, and B.P.V. Hunt. 2019. *Juvenile salmon migration observations in the Discovery Islands and Johnstone Strait in British Columbia, Canada in 2018*. NPAFC Doc. 1838. 21 pp. Hakai Institute, Institute for the Oceans and Fisheries and Department of Earth, Ocean and Atmospheric Sciences, University of British Columbia, Earth to Ocean Research Group, Simon Fraser University, Department of Ecology and Evolutionary Biology, University of Toronto, and Salmon Coast Field Station (Available at <https://npafc.org>).
- 2018** Hunt, B.P.V., **B.T. Johnson**, S.C. Godwin, M. Krkosek, E.A. Pakhomov, and L. Rogers. 2018. *The Hakai Institute Juvenile Salmon Program: early life history of sockeye, pink and chum salmon in British Columbia, Canada*. NPAFC Doc. 1788. 14 pp. Institute for the Oceans and Fisheries and Department of Earth, Ocean and Atmospheric Sciences, University of British Columbia, Hakai Institute, Earth to Ocean Research Group, Simon Fraser University, Department of Ecology and Evolutionary Biology, University of Toronto, and Salmon Coast Field Station (Available at <http://www.npafc.org>).
- 2018** **Johnson, B.T.**, J.C.L. Gan, C.V. Janusson, and B.P.V. Hunt. 2018. *Juvenile salmon migration dynamics in the Discovery Islands and Johnstone Strait; 2015–2017*. NPAFC Doc. 1790. 10 pp. Hakai Institute, Institute for the Oceans and Fisheries and Department of Earth, Ocean and Atmospheric Sciences, University of British Columbia (Available at <http://www.npafc.org>)

Software

- 2018** **Johnson, B.T.** *Juvenile Salmon Program Data Explorer*. <https://hecate.hakai.org/shiny/JSP/>. Web application. Quadra Island, BC, Canada.
- 2018** **Johnson, B.T.** *hakaisalmon: Hakai Institute Juvenile Salmon Program functions, templates, and helpers*. R package. <https://hakaiinstitute.github.io/hakaiR/>

Books

- 2020** **Johnson, B.T.** *Standardizing Marine Biological Data*. Quadra Island, BC, Canada.
- 2017** **Johnson, B.T.** *Hakai Institute R Stats Guide for Reproducible Analyses*. Quadra Island, BC, Canada.

Academic achievements

- 2015** **Johnson, B.T.** Development and evaluation of a new method for assessing migration timing of juvenile Fraser River Sockeye salmon in their early marine phase. BSc. Undergraduate Honours Thesis. A + University of Northern British Columbia.
- 2015** Vernon C. Brink Award for the Study of Biological Diversity. University of Northern British Columbia.
- 2015** Wyerhauser Scholarship. University of Northern British Columbia. University of Northern British Columbia.
- 2015** Frank Oberle Scholarship. University of Northern British Columbia.
- 2014** Canfor Annual Award. University of Northern British Columbia.
- 2013** Entrance scholarship. University of Northern British Columbia.
- 2010** Entrance scholarship. British Columbia Institute of Technology.

Conference presentations

- 2020** **Johnson, B.T.**, R Brunsting, B.P.V. Hunt, M. Saunders, E. Peterson *The Global Ocean Observation System and Essential Salmon Ocean Ecology Variables* Oral presentation at the Salmon Ocean Ecology

- Meeting at Stanford's John Hopkins Marine Research Laboratory. Monterey Bay, CA, USA.
- 2019 Johnson, B.T.**, J.C.L. Gan, C.V. Janusson, B.P.V. Hunt. *Hakai Institute Juvenile Salmon Program Time Series Poster*. Poster presentation at the Salmon Ocean Ecology / North Pacific Anadromous Fisheries Commission Meeting, Portland Oregon.
- 2019 Johnson, B.T.**, J.C.L. Gan, C.V. Janusson, B.P.V. Hunt. *Hakai Institute Juvenile Salmon Program 2015–2018 Time Series Poster*. Poster presentation at Fisheries and Oceans Canada State of the Pacific Ocean meeting. Nanaimo, BC, Canada.
- 2018 Johnson, B.T.** Hakai Institute Juvenile Salmon Program. Oral presentation at the Pint of Salmon Science community event held at the Riptide Pub, Campbell River, BC, Canada
- 2018 Johnson, B.T.**, J. Jackson, B.P.V. Hunt., A. Hare, W. Evans. *Quadra Island Ecological Observatory; Ocean Conditions, Juvenile Salmon Migrations, and Data Management*. Oral presentation at the BCSFA Research Priorities Workshop, Courtenay, B.C.
- 2018 Johnson, B.T.**, C. Neville, B.P.V. Hunt. *Fine scale migration dynamics of juvenile sockeye in the Discovery Islands, B.C.* Oral presentation at the Salmon Ocean Ecology Meeting. Newport, Oregon.
- 2017 Hunt, B.P.V., B.T. Johnson.** *Juvenile Salmon Program update; foraging conditions, migration dynamics, and growth*. Pacific Salmon Foundation Salish Sea Marine Survival Project international conference. Richmond, BC, Canada.
- 2017 Johnson, B.T.**, J.C.L. Gan, C.V. Janusson, B.P.V. Hunt. *Hakai Institute Juvenile Salmon Program 2015–2017 Time Series Poster*. Poster presentation at the Pacific Salmon Foundation Salish Sea Marine Survival Project juvenile salmon work group. Nanaimo, BC, Canada.
- 2017 Johnson, B.T.**, J.C.L. Gan, C.V. Janusson, B.P.V. Hunt. *Hakai Institute Juvenile Salmon Program 2015–2016 Time Series Poster*. Poster presentation at Fisheries and Oceans Canada State of the Pacific Ocean meeting. Sidney, BC, Canada.
- 2016 Johnson, B.T.** *Hakai Institute Juvenile Salmon Program highlights 2015–2016*. Hakai Institute Research Exchange. Nanaimo, BC, Canada.
- 2016 Hunt, B.P.V., B.T. Johnson.** *Juvenile Salmon Program review; ocean conditions fish condition analysis*. Pacific Salmon Foundation Salish Sea Marine Survival Project Canadian meeting. Nanaimo, BC, Canada.

Working groups and workshops

- 2019–Current** International Year of the Salmon Data Mobilization Working Group. A collaboration between the US National Centre for Ecological Analysis and Synthesis, the North Atlantic Salmon Conservation Organization, Fisheries and Oceans Canada, and the Hakai Institute with the goal of defining methods and technologies for integrating and mobilizing international salmon data.
- 2019–Current** North Pacific Anadromous Fisheries Commission International Year of the Salmon Steering Committee and Working Group.
- 2019–Current** Metadata Profile Task Team for the Canadian Integrated Ocean Observing System. Collaboration with Fisheries and Oceans Canada, Ocean Networks Canada, and Hakai Institute.
- 2019–Current** Data Management Policy Task Team for the Canadian Integrated Ocean Observing System. Collaboration with Fisheries and Oceans Canada, Ocean Networks Canada, Dalhousie University, and the Hakai Institute.
- 2019** Production methodologies and measurements for in situ zooplankton workshop. PICES workshop. Oct 12-13, Hakai Institute, Quadra Island, BC.
- 2019** International Ocean Observation Systems Code Sprint focussed on transforming biological data sets to fit within the Global Ocean Observation System. Oct 8-10, Ann Arbour, MI, USA.
- 2017–Current** Salmon Migrations and Climate Change Annual Workshop. Pacific Salmon Ecology and Conservation Lab. Dr. Scott Hinch.

Certifications

- 2018** Data Carpentry Instructor. Course taught by John Simpson. Oct 18-19. Simon Fraser University.
- 2017** Occupational First Aid Level 1. St. John's Ambulance. February 18. Campbell River, BC.

2010 Swift Water Rescue Technician. Rescue Canada Occupational River Safety Technician Level II. Aug 5. Chilliwack, BC.
2010 Electrofishing Crew Supervisor. Ministry of Environment. North Vancouver, BC.
2010 Chainsaw Technician. Safety Fundamentals. Arboriculture Canada. April 19. North Vancouver, BC.

Skills

Salmon ecology, population and community ecology, oceanography, data science, research, field operations, dev ops, open science, project management, collaboration and partnership development, working with First Nations, data analysis, data management, research software engineering