Curriculum Vitae
Dr. ALEJANDRO FRID

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Phone: 778.957.2031
Place of birth: Mexico City
Citizenship: Canadian
Languages: Fluent in English and Spanish

Education:

2006	PhD	Simon Fraser University	Biological Sciences
1994	MSc	University of British Columbia	Animal Science
1988	BSc	Evergreen State College	Biology

Professional Experience

2015-Current	Ecological Consultant Adjunct Assistant Professor	Self-employed School of Environmental Studies, University of Victoria
2013-2023	Science Coordinator	Central Coast Indigenous Resource Alliance
2008-2013	Postdoctoral fellow	Vancouver Aquarium Marine Science Centre
2006-2008	Postdoctoral fellow	Prince William Sound Science Center and Dalhousie University
2000-2006	PhD Candidate	Simon Fraser University
1990-2002	Ecological Consultant	Self-employed
1987	Field technician	Canadian Wildlife Service

Other qualifications: DCBC Unrestricted Occupational SCUBA Diver (certificate 20130291), (>750 research dives conducted to date in British Columbia).

Writing and science communication awards

1. Ocean Wise Conservation and Research Communication Award, 2020
2. Hubert Evans Non-Fiction Prize, 2020
3. Nautilus Book Award, Silver Winner, 2019

Academic publications

Research publications in refereed journals
For publications 38, 33, and 41 asterisks denote equal 1st authors.

43. **Frid, A**., Wilson, K. L., Walkus, J. Forrest, R. E., & Reid, M. (2023). Re-imagining the precautionary approach to make collaborative fisheries management inclusive of Indigenous Knowledge Systems. *Fish and Fisheries*, 00, 1–19. https://doi.org/10.1111/faf.12778

42. Reid M, Collins ML, Hall SRJ, Mason E, McGee G, **Frid A**. 2022. Protecting our coast for everyone's future: Indigenous and scientific knowledge support marine spatial protections proposed by Central Coast First Nations in Pacific Canada. *People and Nature* 00:1–19. John Wiley & Sons, Ltd. Available from https://doi.org/10.1002/pan3.10380.

41. ***Frid, A.**, *McGreer, M., *Wilson, K.L. *et al.* Hotspots for rockfishes, structural corals, and large-bodied sponges along the central coast of Pacific Canada. *Sci Rep* **11,** 21944 (2021). https://doi.org/10.1038/s41598-021-00791-9

40. Whitney, C. K., **A. Frid,** B. K. Edgar, J. Walkus, P. Siwallace, I. L. Siwallace, and N. C. Ban 2020. "Like the plains people losing the buffalo": perceptions of climate change impacts, fisheries management, and adaptation actions by Indigenous peoples in coastal British Columbia, Canada. *Ecology and Society* 25(4):33. https://doi.org/10.5751/ES-12027-250433

39. Dill, L.M. and **Frid, A**. 2020. Behaviourally-mediated biases in transect surveys: a predation risk sensitivity approach. Canadian Journal of Zoology. 98: https://doi.org/10.1139/cjz-2020-0039.

38. *McGreer M, ***Frid A**, Blaine T, Hankewich S, Mason E, Reid M, Kobluk H. 2020. Growth parameter *k* and location affect body size responses to spatial protection by exploited rockfishes. *PeerJ* 8:e9825 https://doi.org/10.7717/peerj.9825.

37. Walsh, J.C., Connors, K., Hertz, E., Kehoe, L., Martin, T.G., Connors, B., Bradford, M.J., Freshwater, C., **Frid, A.**, Halverson, J., Moore, J.W., Price, M.H.H. & Reynolds, J.D (2020). Prioritizing conservation actions for Pacific salmon in Canada.*J. Appl. Ecol.*, https://doi.org/10.1111/1365-2664.13646

36. Olson AM, **Frid A**, Quintela dos Santos JB, Juanes F. 2020. Trophic position scales positively with body size within but not among four species of rocky reef predators. *Marine Ecology Progress Series*, 640, 189–200. DOI: https://doi.org/10.3354/meps13275

35. Connors, B., Atlas, W., Melymick, C., Moody, M., Moody, J. & **Frid, A**. (2019). Conservation Risk and Uncertainty in Recovery Prospects for a Collapsed and Culturally Important Salmon Population in a Mixed-Stock Fishery. *Mar. Coast. Fish.*, 11, 423–436. https://doi.org/10.1002/mcf2.10092

34b. **Frid, A**., Kobluk, H. & McGreer, M. (2020). Addendum to "Chasing the light: Positive bias in camera-based surveys of groundfish examined as risk-foraging trade-offs" Biological Conservation, 231, 133-138. Biol. Conserv., 244, https://doi.org/10.1016/j.biocon.2020.108513

34a. **Frid, A**., McGreer, M. and Frid, T. (2019) 'Chasing the light: Positive bias in camera-based surveys of groundfish examined as risk-foraging trade-offs, *Biological Conservation*, 231, pp. 133–138. doi: https://doi.org/10.1016/j.biocon.2019.01.011.

33. ***Ban, N.C., ***Frid, A.,** Reid, M., Edgar, B., Shaw, D. & Siwallace, P. (2018). Incorporate Indigenous perspectives for impactful research and effective management. *Nat. Ecol. Evol.* https://doi.org/10.1038/s41559-018-0706-0

32**. Frid A**, McGreer M, Gale KSP, et al. (2018)The area-heterogeneity tradeoff applied to spatial protection of rockfish (*Sebastes* spp.) species richness. *Conservation Letters*. 2018;e12589. https://doi.org/10.1111/conl.12589

31. Ban NC & **Frid A.** (2018). Indigenous peoples' rights and marine protected areas. *Marine Policy*. 87 180–185. http://dx.doi.org/10.1016/j.marpol.2017.10.020

30. Ban, N. C., Eckert, L., McGreer, M., & **Frid, A**. (2017). Indigenous knowledge as data for modern fishery management: a case study of Dungeness crab in Pacific Canada. *Ecosystem Health and Sustainability*, 3(8), 1379887. https://doi.org/10.1080/20964129.2017.1379887.

29. Eckert LE, Ban NC,**Frid A**, & McGreer M. (2017). Diving back in time: Extending Historical Baselines for Yelloweye Rockfish with Indigenous Knowledge. *Aquatic Conserv: Mar Freshw Ecosyst:* 28, 158–166. https://doi.org/10.1002/aqc.2834.

28. McGreer M & **Frid A**. (2017). Declining size and age of rockfishes (*Sebastes* spp.) inherent to Indigenous cultures of Pacific Canada. *Ocean and Coastal Management*: 145, 14–20. https://doi.org/10.1016/j.ocecoaman.2017.04.019

27. **Frid A**., McGreer M., Haggarty D.R., Beaumont J. & Gregr E.J. (2016). Rockfish size and age: The crossroads of spatial protection, central place fisheries and indigenous rights. *Global Ecology and Conservation*, 8, 170-182. http://www.sciencedirect.com/science/article/pii/S2351989416300920

26. **Frid A**., McGreer M. & Stevenson A. (2016). Rapid recovery of Dungeness crab within spatial fishery closures declared under indigenous law in British Columbia. *Global Ecology and Conservation*, 6, 48-57. http://www.sciencedirect.com/science/article/pii/S235198941630004X

25. Wirsing A.J., Heithaus M.R. & **Frid A**. (2014). Cross-fertilizing aquatic and terrestrial research to understand predator risk effects. *Wiley Interdisciplinary Reviews: Water*. Published online: 4 AUG 2014. DOI: 10.1002/wat2.1039.

24. Marliave J, **Frid A**, Welch D and Porter A. (2013.) Home site fidelity by Black Rockfish (*Sebastes melanops*) reintroduced to a fjord environment. *Canadian Field Naturalist* 127(3): 255–261.

23. **Frid A**., Connors B., Cooper A.B., Marliave J. (2013) Size-structured abundance relationships between upper- and mid-trophic level predators on temperate rocky reefs. *Ethology Ecology & Evolution* 25, 253-268. DOI 10.1080/03949370.2013.798350

22. **Frid A,** Marliave J, and Heithaus MR (2012). Interspecific variation in life history relates to antipredator decisions by marine mesopredators on temperate reefs. *PLoS ONE* 7(6): e40083. doi:10.1371/journal.pone.0040083.

21. **Frid A** and L Quarmby (2012) Take direct action on climate inaction. *Nature*. 487 (5 July 2012)

20. **Frid A** and Marliave J (2010) Predatory fishes affect trophic cascades and apparent competition in temperate reefs. *Biology Letters* 6:533-536.

19. **Frid A**, Burns J, Baker GG and Thorne RE (2009). Predicting synergistic effects of resources and predators on foraging decisions by juvenile Steller sea lions. *Oecologia*. 158:775-7 76

18. **Frid A**, Baker GG and Dill LM (2008). Do shark declines create fear-released systems? *Oikos* 117: 191-201.

17. Heithaus MR, **Frid A**, Wirsing, A and Worm B (2008). Predicting ecological consequences of marine top predator declines. *Trends in Ecology and Evolution* 23:202-210

16. Heithaus MR, Wirsing A, **Frid A** and Dill LM (2008). Seascapes of fear: evaluating sublethal predator effects experienced and generated by marine mammals. *Marine Mammal Science* 24:1-15.

15. **Frid A,** Dill LM, Thorne RE, and Blundell GM (2007a). Inferring prey perception of relative danger in large-scale marine systems. *Evolutionary Ecology Research*. 9: 635-649.

14. **Frid A**, Heithaus MR, and Dill LM (2007b). Dangerous dive cycles and the proverbial ostrich. *Oikos*: 116: 893-902.

13. Heithaus MR, **Frid A**, Wirsing A, Dill LM, Fourqurean J, Burkholder D, Thomson J, Bejder L (2007). State-dependent risk-taking by green sea turtles mediates top-down effects of tiger shark intimidation in a marine ecosystem. *Journal of Animal Ecology*. 76: 87-844.

12. Heithaus MR, Wirsing A, **Frid A**, and Dill LM (2007). Behavioral indicators in conservation biology. *Israel Journal of Ecology and Evolution*. 53: 355-370.

11. **Frid A**, Baker GG and Dill LM (2006). Do resource declines increase predation rates on North Pacific harbor seals? A behavior-based plausibility model. *Marine Ecology Progress Series*. 312: 265-275.

10. Heithaus, M.R., **Frid, A**, Wirsing, A., Bejder, L., and Dill, L.M. (2005). Biology of sea turtles under risk from tiger sharks at a foraging ground. *Marine Ecology Progress Series*. 288:285-294.

9. **Frid A** (2003) Dall's sheep responses to overflights by helicopter and fixed-wing aircraft. *Biological Conservation*. 110: 387-399.
8. Heithaus MR and **Frid A** (2003) Optimal diving under the risk of predation. *Journal of Theoretical Biology*. 223:79-92.
7. **Frid A** and Dill LM (2002) Human-caused disturbance stimuli as a form of predation risk. *Conservation Ecology*. 6:http://www.consecol.org/Journal/vol6/iss1/art11/print.pdf.
6. Heithaus MR, **Frid A** and Dill LM (2002) Shark-inflicted injury frequencies, escape ability, and habitat use of green and loggerhead turtles. *Marine Biology*. 140:229–236.
5. Heithaus MR, McLash JJ, **Frid A,** Dill LM and Marshall GJ (2002) Novel insights into green sea turtle behaviour using animal-borne video cameras. *Journal of the Marine Biological Association of the United Kingdom*. 82:1-2.
4. **Frid A** (2001) Habitat use by endangered huemul (*Hippocamelus bisulcus*): cattle, snow, and the problem of multiple causes. *Biological Conservation*. 100:261-267.
3. **Frid A** (1999) Huemul (*Hippocamelus bisulcus*) sociality at a periglacial site: sexual aggregation and habitat effects on group size. *Canadian Journal of Zoology*. 77:1083-1091.
2. **Frid A** (1997) Vigilance by female Dall's sheep: interactions between predation risk factors. *Animal Behaviour*. 53:799-808.
1. **Frid A** (1994) Observations on habitat use and social organisation of a huemul (*Hippocamelus bisulcus*) coastal population in Chile. *Biological Conservation*. 67:13-19.

Op-ed/book review

Frid, A. (2022). Book Review: Sullivan, N.P. (2022). The Blue Revolution: Hunting, Harvesting, and Farming Seafood in the Information Age. Island Press, Washington, DC. ISBN: 9,781,642,832,174. Price $30.00 (Hardback). xvi + 247 Pages. *Hum Ecol*. https://doi.org/10.1007/s10745-022-00367-9. Link.

Frid, A and W. Atlas. 2020.Fisheries framework obscures the long-term picture of declining populations. Policy Options (Sept 18, 2020).

Peer-reviewed book chapters

2. **Frid A** and Heithaus MR (2010) Conservation and Anti-Predator Behavior. In:Breed M.D. and Moore J., (eds.) *Encyclopedia of Animal Behavior*, volume 1,pp. 366-376 Oxford: Academic Press.
1. Heithaus MR, **Frid A**, Vaudo JJ, Worm B, and Wirsing, AJ (2010). Unravelling the Ecological Importance of Elasmobranchs. Pages 607-633 in: JC Carrier, MR Heithaus, JA Musick (editors) *Sharks and Their Relatives II: Biodiversity, Adaptive Physiology, and Conservation*. CRC Press.

Technical reports (selected)

12. Denley, D., Fraser, M., **Frid, A.**, Vegh, M., & Salomon, A. (2022). Hidden impacts of climate change on Canada's undersea forests. *Rep. to Cent. Coast Indig. Resour. Alliance*. https://www.ccira.ca/wp-content/uploads/2022/05/Bryozoan-Kelp-Surveys-Summary-Report-for-CCIRA_May2022.pdf
11. Martone, R., Robb, C., Gale, K., **Frid, A**., McDougall, C., & Rubidge, E. (2021). Design strategies for the northern shelf bioregional marine protected area network. *DFO Canadian Science Advisory Secretariat Research Document*, **2021**(024), xi+156.
10. Rubidge, E., Jeffery, S., Gregr, E., Gale, K. & **Frid, A**. (2020). Assessment of nearshore features in the northern shelf bioregion against criteria for determining ecologically and biologically

significant areas (EBSAs). DFO Canadian Science Advisory Secreteriat Research Document, 2020(023), vii+63.
9. Gale, K. S. P., **Frid, A**., Lee, L., McCarthy, J., Robb, C., Rubidge, E., Steele, J., & Curtis, J. M. R. (2019). A framework for identification of ecological conservation priorities for MarineProtected area network design and its application in the northern shelf bioregion. *DFO Canadian Science Advisory Secretariat Research Document*, **2018**(055), 1–186.
8. **Frid A** and J. Boulanger (2014). Dungeness crab research by the Wuikinuxv Nation: *Interim Report to the Central Coast Indigenous Resource Alliance*. http://ccira.ca/media/documents/pdf/wuikinuxv-crab-2014-report4.pdf
7. **Frid A**, Baker GG, and Blundell G (2006) Inferred prey captures and use of near-surface strata by harbour seals in Prince William Sound, Alaska. *Manuscript 3 in North Pacific Research Board Final Report* 313. 115 p.
6. **Frid A** (2002) The survivor's perspective: preliminary study design for quantifying hunting disturbance of caribou along the Dempster Highway, Yukon. *Report to the Yukon Fish and Wildlife Branch*, Whitehorse, Yukon
5. **Frid A** (2001) Applying conservation biology to the design of Yukon protected areas: a preliminary framework. *Report to the Yukon Protected Areas Secretariat*, Whitehorse.
4. **Frid A** (1998) Crater site selection by woodland caribou of the Southern Lakes Herd: differential effects of congeneric lichen species. *Report to the Yukon Fish and Wildlife Branch*, Whitehorse, Yukon.
3. **Frid A** (1997) An evaluation of wildlife research related to the Tulsequah Chief Mine. *Report to the Northwest Institute for Bioregional Studies*, Smithers, British Columbia.
2. **Frid, A** (1996) How many collars, how many flights? A study design for estimating numbers of bison in the Yukon. *Report to the Yukon Fish and Wildlife Branch*, Whitehorse, Yukon
1. **Frid A** (1995) Dall's sheep of the Killermun Lake Region: Ecological and Behavioural data in relation to mineral exploration. *Report to the Yukon Fish and Wildlife Branch and Archer Cathro & Associates LTD*, Whitehorse, Yukon.

Writing for general audiences (selected).

7. **Frid A** (2022). On Unraveling and Resilience - YES! Magazine (yesmagazine.org)
6. **Frid A** (2019). *Changing Tides: An Ecologist's Journey to Make Peace with the Anthropocene*. New Society Publishers. https://www.newsociety.com/Books/C/Changing-Tides.
5. **Frid A** (2015). *A world for my daughter: An ecologist's search for optimism*. Caitlin Press http://caitlin-press.com/our-books/world-for-my-daughter-a/.
4. **Frid A.** (2015) All (fisheries) models are wrong, but some are useful (to indigenous people) *Conservation Bytes*. http://conservationbytes.com/2015/08/01/all-fisheries-models-are-wrong-but-some-are-useful-to-indigenous-people/
3. **Frid A** (2012) Staying grounded: A climate scientist challenges carbon offsets by refusing to fly. *E-The Environmental Magazine*. Nov/Dec 2012: 18-19. https://emagazine.com/carbon-footprint/
2. **Frid A** (1997) Apocalypse cow: endangered deer compete with cattle for space in Chile's fjords. *Wildlife Conservation*, 100, 52-57.
1. **Frid, A** (1991) Into the last outpost of the huemul. *International Wildlife*. 21:14-19.

Peer reviewing

I review multiple submissions per year for: ***Journals***: Scientific Reports, Conservation Science and Practice; Fish and Fisheries; People and Nature; Ecological Applications; Ecosystem Health and Sustainability, PLoS ONE, Proceedings of the Royal Society B**,** Journal of the Royal Society Interface, Biology Letters, Oikos, Oecologia, ICES Journal of Marine Science, Frontiers in Marine Science, PeerJ, Animal Conservation, Aquatic Biology, Journal of Applied Ecology, Functional Ecology,

Animal Behaviour, Marine Ecology Progress Series, Marine Policy, Conservation Biology, Journal of Mammalogy, Behavioral Ecology, Biological Conservation, Estuaries and Coasts, Rangifer, Northeastern Naturalist, Wildlife Biology, Canadian Field Naturalist, Zoology, Aquatic Mammals. ***Edited Books***: Proceedings of the 2004 World Fisheries Congress; Boinski and Garber (editors) 2000. On the move: how and why animals travel in groups. Univ.of Chicago Press. ***Funding agencies*:** NSERC, MITACS, North Pacific Research Board; Netherlands Organisation for Scientific Research; Exxon Valdez Oil Spill Trustee Council; Wildlife Conservation Society.