

CURRICULUM VITAE

Northwest Fisheries Science Center
2725 Montlake Blvd E
Seattle, WA 98112
tel: 206-860-3408
blake.feist@noaa.gov

Blake E. Feist

EDUCATION

- 1999 Ph.D., Fisheries - University of Washington. Seattle, WA
Dissertation Title: “A spatio-temporal analysis of the environmental and climatic factors controlling the expansion of *Spartina alterniflora* in Willapa Bay, Washington”
Advisors: Ray Hilborn and Charles A. Simenstad
- 1991 M.S., Fisheries - University of Washington. Seattle, WA
Thesis Title: “Potential impacts of pile driving on juvenile pink (*Oncorhynchus gorbuscha*) and chum (*O. keta*) salmon behavior and distribution”
Advisor: James J. Anderson
- 1986 B.S., Zoology - University of Wisconsin, Madison. Madison, WI
Senior Thesis Title: “Effects of dilute, low pH waters on eggs and fry of two populations of yellow perch (*Perca flavescens*)”
Advisor: John J. Magnuson

WORK EXPERIENCE

- 1999- Landscape ecologist at the Northwest Fisheries Science Center (NOAA-NMFS). I am responsible for running spatial analyses on a wide range of organisms – looking at the interplay between sea- and landscapes and the organisms they contain – and identifying macro-scale linkages. Like most marine ecologists, I am interested in the interactions between marine organisms and their surroundings, but I am most interested in the higher-level patterns that emerge when applying a landscape ecology approach. Coupling these broad patterns with those observed at finer spatial grains affords a richer story concerning the world’s complex marine and freshwater ecosystems.
- 1992-1999 Graduate student in Doctoral program at the University of Washington, School of Fisheries. Research focused on the dynamics of estuarine non-indigenous plant invasions.
- 1992-1999 Research Assistant at the University of Washington, School of Fisheries. Charles A. Simenstad, supervisor. Responsible for and participated in a variety of landscape level, spatial analysis based projects including: classification of LANDSAT TM imagery for estuarine habitats in Willapa Bay; interpretation of aerial photography in estuarine and tidally influenced wetlands; spatial analysis of landscape level patterns in estuaries; development of estuarine restoration site ranking protocol using GIS and spatial analysis; monitoring vegetation change in breached dike estuarine wetlands using total station GPS and GIS; quantifying spatial extents of eelgrass associated with ferry docks using spatial analysis and GIS; assessment of potential dike-breach restoration of estuarine wetlands using GIS; identification and inventory of breached dike estuarine wetlands along the Washington, Oregon, and California coast.
- 1991-1999 Freelance computer graphics specialist at University of Washington (Nancy E. Blanton and Dr. Theodore W. Pietsch, supervisors) and for my own computer graphics business, “Dead

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Rendering.” Produced custom computer generated maps, graphs, schematic drawings, illustrations, and web pages.

- 1988-1991 Graduate student in Master's program at the University of Washington, School of Fisheries. Research examined the impacts of industrial noise (produced by pile driving in Puget Sound or hydroelectric projects on the Columbia River) on the behavior and spatial distributions of juvenile Pacific salmon.
- 1987-1988 Associate research specialist for Dr. Erik Floor, University of Wisconsin, Madison. Research was directed at elucidating the biochemical nature and function of purified mammalian CNS synaptic vesicle proteins. Methods used included various ultracentrifuge techniques, permeation chromatography, immunoprecipitation, Western blotting, radio immuno assay, tritiated catecholamine uptake, protein assays, enzyme linked immuno sorbent assays (ELISA), and development of monoclonal antibodies directed at purified synaptic vesicle proteins.
- 1985-1986 Undergraduate senior thesis under Dr. John J. Magnuson, University of Wisconsin, Madison. Investigated differences in resistance to low pH/dilute water environments of two populations of yellow perch (*Perca flavescens*) at the egg and fry stages of development. Used atomic absorption spectrophotometry for calcium analysis.
- Summ 84/85 Student hourly for Dr. John Harkin working on plausibility of converting commercial cannery effluent into ethanol for use in gas-o-hol. Duties included analyses of: sugars, formaldehyde, and proteins using ultraviolet spectrophotometry; chemical oxygen demand; Bligh-Dyer assay; atomic absorption spectrophotometry, flame photometry and ultra-filtration and reverse osmosis concentration of sugars.

PEER REVIEWED PUBLICATIONS

- Good, TP, JF Samhouri, **BE Feist**, C Wilcox & J Jahncke (In Review) Plastics in the Pacific: assessing risk from ocean debris for marine birds in the California Current Large Marine Ecosystem. *Biological Conservation* ##(##): ###-###. DOI:
- Feist, BE**, JF Samhouri, KA Forney & LE Saez (In Review) Disentangling the web of factors influencing whale bycatch in fixed gear fisheries on the US west coast. *Frontiers in Marine Science* ##(##): ###-###. DOI:
- Stier, AC, AO Shelton, JF Samhouri, **BE Feist** & PS Levin (In Revision) Fishing, environment, and the erosion of a portfolio effect. *Ecosphere* ##(##): ###-###. DOI:
38. Stock, BC, EJ Ward, T Eguchi, JE Jannot, JT Thorson, **BE Feist** & BX Semmens (In Press) Comparing predictions of fisheries bycatch using multiple spatiotemporal species distribution model frameworks. *Canadian Journal of Fisheries and Aquatic Sciences* ##(##): ###-###. DOI: 10.1139/cjfas-2018-0281
37. Shelton, AO, CJ Harvey, JF Samhouri, KS Andrews, **BE Feist**, KE Frick, N Tolimieri, GD Williams & LD Antrim (2018) From the predictable to the unexpected: kelp forest and benthic invertebrate community dynamics following decades of sea otter expansion. *Oecologia* **188**(4): 1105-1119. DOI: 10.1007/s00442-018-4263-7

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36. Shelton, AO, WH Satterthwaite, EJ Ward, **BE Feist** & BJ Burke (2018) Using hierarchical models to estimate stock-specific and seasonal variation in ocean distribution, survivorship, and aggregate abundance of fall run Chinook salmon. *Canadian Journal of Fisheries and Aquatic Sciences* **76**(1): 95-108. DOI: 10.1139/cjfas-2017-0204
 35. Heery, EC, AY Green, **BE Feist** & KP Sebens (2018) Urbanization-related distribution patterns and habitat-use by giant Pacific octopus (*Enteroctopus dofleini*). *Urban Ecosystems* **21**(4): 707-719. DOI: 10.1007/s11252-018-0742-1
 34. Shelton, AO, ME Hunsicker, EJ Ward, **BE Feist**, R Blake, CL Ward, BC Williams, JT Duffy-Anderson, AB Hollowed & AC Haynie (2018) Spatio-temporal models reveal subtle changes to demersal communities following the Exxon Valdez oil spill. *ICES Journal of Marine Science* **75**(1): 287-297. DOI: 10.1093/icesjms/fsx079
 33. **Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, SE Damm, JW Davis & NL Scholz (2017) Roads to ruin: conservation threats to a sentinel species across an urban gradient. *Ecological Applications* **27**(8): 2382-2396. DOI: 10.1002/eap.1615
 32. Barnett, LAK, SM Hennessey, TE Essington, AO Shelton, **BE Feist**, TA Branch & MM McClure (2017) Getting to the bottom of fishery interactions with living habitats: spatiotemporal trends in disturbance of corals and sponges on the US west coast. *Marine Ecology Progress Series* **574**: 29-47. DOI: 10.3354/meps12195
 31. Moser, ML, K Patten, SC Corbett, **BE Feist** & ST Lindley (2017) Abundance and distribution of sturgeon feeding pits in a Washington estuary (*Acipenser medirostris*). *Environmental Biology of Fishes* **100**(5): 597-609. DOI: 10.1007/s10641-017-0589-y
 30. Shelton, AO, TB Francis, **BE Feist**, GD Williams, A Lindquist & PS Levin (2017) Forty years of seagrass population stability and resilience in an urbanizing estuary. *Journal of Ecology* **105**: 458-470. DOI: 10.1111/1365-2745.12682
 29. Norman, KC, TG Safford, **BE Feist** & M Henly (2016) At the confluence of data streams: mapping the social and biophysical landscapes on the Puget Sound's edge. *Coastal Management* **44**(5): 427-440. DOI: 10.1080/08920753.2016.1208038
 28. Plummer, ML & **BE Feist** (2016) Capturing energy from the motion of the ocean in a crowded sea. *Coastal Management* **44**(5): 464-485. DOI: 10.1080/08920753.2016.1208877
 27. Kelly, RP, JL O'Donnell, NC Lowell, AO Shelton, JF Samhoury, SM Hennessey, **BE Feist** & GD Williams (2016) Genetic signatures of ecological diversity along an urbanization gradient. *PeerJ* **4**: e2444. DOI: 10.7717/peerj.2444
 26. **Feist, BE** & PS Levin (2016) Novel indicators of anthropogenic influence on marine and coastal ecosystems. *Frontiers in Marine Science* **3**: 1-13. DOI: 10.3389/fmars.2016.00113
 25. Ono, K, AO Shelton, EJ Ward, JT Thorson, **BE Feist** & R Hilborn (2016) Space-time investigation of the effects of fishing on fish populations. *Ecological Applications* **26**(2): 392-406. DOI: 10.1890/14-1874.1

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24. Tolimieri N, AO Shelton, **BE Feist** & V Simon (2015) Can we increase our confidence about the locations of biodiversity 'hotspots' by using multiple diversity indices? *Ecosphere* **6**(12): 1-13. DOI: 10.1890/ES14-00363.1
 23. **Feist BE**, MA Bellman, EA Becker, KA Forney, MJ Ford & PS Levin (2015) Potential overlap between cetaceans and commercial groundfish fleets that operate in the California Current Large Marine Ecosystem. *NOAA Professional Paper NMFS* **17**: 27p. URL: <http://spo.nwr.noaa.gov/pp17.pdf>. DOI: 10.7755/PP.17
 22. Shelton, AO, TB Francis, GD Williams, **B Feist**, K Stick & PS Levin (2014) Habitat limitation and spatial variation in Pacific herring egg survival. *Marine Ecology Progress Series* **514**: 231-245. DOI: 10.3354/meps10941
 21. Shelton, AO, JT Thorson, EJ Ward & **BE Feist** (2014) Spatial, semiparametric models improve estimates of species abundance and distribution. *Canadian Journal of Fisheries and Aquatic Sciences* **71**(11): 1655-1666. DOI: 10.1139/cjfas-2013-0508
 20. Sale, PF, T Agardy, CH Ainsworth, **BE Feist**, JD Bell & 19 others (2014) Transforming management of tropical coastal seas to cope with challenges of the 21st century. *Marine Pollution Bulletin* **85**: 8-23. DOI: 0.1016/j.marpolbul.2014.06.005
 19. Tolimieri N, JF Samhouri, V Simon, **BE Feist** & PS Levin (2013) Linking the trophic fingerprint of groundfishes to ecosystem structure and function in the California Current. *Ecosystems* **16**: 1216-1229. DOI:10.1007/s10021-013-9680-1
 18. Buhle, ER, **BE Feist** & R Hilborn (2012) Population dynamics and control of invasive *Spartina alterniflora*: inference and forecasting under uncertainty. *Ecological Applications* **22**(3): 880-889
 17. Steel, EA, DW Jensen, KM Burnett, K Christiansen, JC Firman, **BE Feist**, KJ Anlauf & DP Larsen (2012) Landscape characteristics and coho salmon (*Oncorhynchus kisutch*) distributions: Explaining abundance versus occupancy. *Canadian Journal of Fisheries and Aquatic Sciences* **69**(3): 457-468. DOI: 10.1139/F2011-161
 16. **Feist, BE**, ER Buhle, P Arnold, JW Davis & NL Scholz (2011) Landscape ecotoxicology of coho salmon spawner mortality in urban streams. *Public Library of Science ONE* **6**(8): e23424. DOI: 10.1371/journal.pone.0023424
 15. Anlauf, KJ, DW Jensen, KM Burnett, EA Steel, K Christiansen, JC Firman, **BE Feist** & DP Larsen (2011) Explaining spatial variability in stream habitats using both natural and management-influenced landscape predictors. *Aquatic Conservation: Marine and Freshwater Ecosystems* **21**(7): 704-714. DOI: 10.1002/aqc.1221
 14. Fullerton, AH, ST Lindley, GR Pess, **BE Feist**, EA Steel & P McElhany (2011) Human influence on the spatial structure of threatened Pacific salmon metapopulations. *Conservation Biology* **25**(5): 932-944. DOI: 10.1111/j.1523-1739.2011.01718.x
 13. Firman, JC, EA Steel, DW Jensen, KM Burnett, K Christiansen, **BE Feist** & DP Larsen (2011) Landscape models of adult coho salmon density examined at four spatial extents. *Transactions of the American Fisheries Society* **140**(2): 440-455

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12. Steel, EA, RM Hughes, AH Fullerton, S Schmutz, J Young, M Fukushima, S Muhar, M Poppe, **BE Feist** & C Trautwein (2010) Are we meeting the challenges of landscape-scale riverine research? A review. *Living Reviews in Landscape Research* **4**(1): [Online Article] <http://www.livingreviews.org/lrlr-2010-1>
 11. Fullerton, AH, KM Burnett, EA Steel, RL Flitcroft, GR Pess, **BE Feist**, CE Torgersen, DJ Miller & BL Sanderson (2010) Hydrologic Connectivity for Riverine Fishes: Measurement Challenges and Research Opportunities. *Freshwater Biology* **55**(11): 2215-2237
 10. **Feist, BE**, EA Steel, DW Jensen & DND Sather (2010) Does the scale of our observational window affect our conclusions about correlations between endangered salmon populations and their habitat? *Landscape Ecology* **25**(5): 727-743. DOI: 10.1007/s10980-010-9458-1
 9. See, KE & **BE Feist** (2010) Reconstructing the range expansion and subsequent invasion of introduced European green crab along the west coast of the United States. *Biological Invasions* **12**(5): 1305-1318
 8. Ruesink, JL, **BE Feist**, CJ Harvey, JS Hong, AC Trimble & LM Wischart (2006) Changes in productivity associated with four introduced species: Ecosystem transformation of a “pristine” estuary. *Marine Ecology Progress Series* **311**: 203-215
 7. Steel, EA, **BE Feist**, D Jensen, GR Pess, M Sheer, J Brauner & RE Bilby (2004) Landscape models to understand steelhead (*Oncorhynchus mykiss*) distribution and help prioritize barrier removals in the Willamette basin, Oregon, USA. *Canadian Journal of Fisheries and Aquatic Sciences* **61**: 999-1011
 6. **Feist, BE**, EA Steel, GR Pess & RE Bilby (2003) The influence of scale on salmon habitat restoration priorities. *Animal Conservation* **6**(3): 271-282. DOI: 10.1017/S1367943003003330
 5. Levin, PS, S Achord, **BE Feist** & RW Zabel (2002) Non-indigenous brook trout and the demise of Pacific salmon: a forgotten threat? *Proceedings of the Royal Society of London - Biology* **269**: 1663-1670
 4. Pess, GR, DR Montgomery, RE Bilby, EA Steel, **BE Feist** & HM Greenberg (2002) Correlation of landscape characteristics and land use on coho salmon (*Oncorhynchus kisutch*) abundance, Snohomish River, Washington State, USA. *Canadian Journal of Fisheries and Aquatic Sciences* **59**: 613-623
 3. **Feist, BE** & CA Simenstad (2000) Expansion rates and recruitment frequency of exotic smooth cordgrass, *Spartina alterniflora* (Loisel), colonizing unvegetated littoral flats in Willapa Bay, Washington. *Estuaries* **23**(2): 267-274. DOI: 10.2307/1352832
 2. Floor, E & **BE Feist** (1989) Most synaptic vesicles isolated from rat brain carry three membrane proteins, SV2, synaptophysin, and P65. *Journal of Neurochemistry* **52**: 1433-1437. DOI: 10.1111/j.1471-4159.1989.tb09190.x
 1. Floor, E, SF Schaeffer, **BE Feist** & SE Leeman (1988) Synaptic vesicles from mammalian brain: large - scale purification and physical and immunochemical characterization. *Journal of Neurochemistry* **50**: 1588-1596. DOI: 10.1111/j.1471-4159.1988.tb03048.x

REPORTS, ARTICLES, ETC.

McClure, MM, JH Anderson, KS Andrews, MA Bellman, J Bizzaro, R Bjorkland, CD Caldwell, **BE Feist**, C Goldfinger, C Greene, BP Kinlan, PS Levin, CW Menza, C Romsos, JF Samhoury, AO Shelton, N

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- Tolimieri, WW Wakefield, C Whitmire, MM Yoklavich (In Review) Groundfish Essential Fish Habitat Synthesis: A Report to the Pacific Fishery Management Council. NOAA Technical Memorandum National Marine Fisheries Service (2013) Groundfish Essential Fish Habitat Synthesis: A Report to the Pacific Fishery Management Council. NOAA NMFS Northwest Fisheries Science Center, Seattle, WA, April 2013. 107 p.
- National Marine Fisheries Service (2013) Appendix to Groundfish Essential Fish Habitat Synthesis: A Report to the Pacific Fishery Management Council. NOAA NMFS Northwest Fisheries Science Center, Seattle, WA, April 2013. 378 p
- Northwest Fisheries Science Center (2011) Risk assessment of U.S. West Coast groundfish fisheries to threatened and endangered marine species. Northwest Fisheries Science Center, National Marine Fisheries Service. 2725 Montlake Blvd E, Seattle, WA.
- McCarthy, SG, J Spromberg, J Incardona, **BE Feist**, J Labenia, MS Myers, L Rhodes, G Ylitalo, TK Collier, NL Scholz, J McIntyre, L Reed, K Lynch & T Davis (2008) Impacts of Stormwater Runoff on Coho Salmon in Restored Urban Streams. American Fisheries Society Symposium 64: 59
- Achord, S, EE Hockersmith, BP Sandford, RA McNatt, **BE Feist** & GM Matthews (2003) Monitoring the migrations of wild Snake River spring/summer chinook salmon smolts, 2002. Project No. 1991-02800, 101 electronic pages, (BPA Report DOE/BP-00005619-2). URL <<http://www.efw.bpa.gov/cgi-bin/efw/FW/welcome.cgi>>.
- Steel, EA, L Johnston, **BE Feist**, G Pess, RE Bilby, D Jensen, T Beechie & J Myers (2003) Pacific salmon recovery planning and the Salmonid Watershed Analysis Model (SWAM): a broad-scale tool for assisting in the development of habitat recovery plans. *Endangered Species Update*. 20(1):1-32.
- Feist, BE** (1999) A spatio-temporal analysis of the environmental and climatic factors controlling the expansion of *Spartina alterniflora* in Willapa Bay, Washington. Ph.D. Dissertation, University of Washington. Seattle, WA. 219 p. [Web PDF Link](#)
- Simenstad, CA, **BE Feist**, J Morlan & PB Williams (1999) Assessment of potential dike-breach restoration of estuarine wetlands in Tillamook Bay, Oregon. Report to Tillamook Bay National Estuary Project. 57 p.
- Hyde T, **Feist BE** (1998) Olympic Coast National Marine Sanctuary. Silver Spring, MD: National Oceanic and Atmospheric Administration; Washington Sea Grant Program; Center for Marine Conservation. pp. 1 map : col. ; 44 x 27 cm., on sheet 44 x 61 cm., folded to 22 x 10 cm.
- Simenstad, CA, JR Cordell, WG Hood, **BE Feist** & RM Thom (1997) Ecological status of a created estuarine slough in the Chehalis River Estuary: Assessment of created and natural estuarine sloughs, January - December 1995. FRI-UW-9621, Report to U.S. Army Corps of Engineers, Seattle District. Wetland Ecosystem Team, Fisheries Research Institute, University of Washington, Seattle, WA. 47 p.
- Simenstad, CA & **BE Feist** (1996) Restoration potential of diked estuarine wetlands: Inferring fate and the recovery rate of historically-breached sites. EPA 910/R-96-005. 115 p.
- Feist, BE**, JJ Anderson & RT Miyamoto (1996) Potential impacts of pile driving on juvenile pink (*Oncorhynchus gorbuscha*) and chum (*O. keta*) salmon behavior and distribution: Final report. University of Washington, School of Fisheries - FRI Report. FRI-UW-9603.

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- Copping, A, R Strickland, NC Blanton, EC Robichaud, L Hess, V Loe & **B Feist** (1994) Shared waters -- the vulnerable inland sea of British Columbia and Washington. International public symposium summary of the British Columbia/Washington Marine Science Panel, August 1994. 25 pp.
- Feist, BE** (1991) Potential impacts of pile driving on juvenile pink (*Oncorhynchus gorbuscha*) and chum (*O. keta*) salmon behavior and distribution. M.S. Thesis, University of Washington. Seattle, WA. 67 p.
- Feist, BE** & JJ Anderson (1991) Review of fish behavior relevant to fish guidance systems. University of Washington, School of Fisheries - FRI Report. FRI-UW-9102. 100 pp. DOI: 10.13140/2.1.1172.8161
- Anderson, JJ, **BE Feist**, RT Miyamoto, SO & S McConnell (1989) Measurement of low frequency sound at Bonneville, McNary, and Lower Granite Dams. University of Washington, School of Fisheries - FRI Report. FRI-UW-8906.
- Miyamoto, RT, SO McConnell, JJ Anderson & **BE Feist** (1989) Underwater noise generated by Columbia River hydroelectric dams. Journal of the Acoustical Society of America 85(S1): 127.

BOOK CHAPTERS

- Feist, BE** (2012) "Ecosystem". *In*: El-Shaarawi AH, Piegorisch WW, editors. Encyclopedia of Environmetrics. 2nd Edition. John Wiley & Sons, Ltd., Chichester, UK. pp. 774-778. DOI: 10.1002/9780470057339.vae010.pub2
- Rice, CA, WG Hood, LM Tear, CA Simenstad, GD Williams, LL Johnson, **BE Feist** & PR Roni (2005) "Monitoring Rehabilitation in Temperate North American Estuaries". Chapter 7 *In*: Methods for Monitoring Stream and Watershed Restoration. PR Roni, (ed.). American Fisheries Society, February 2005. 350 p.
- Feist, BE** & EO Box (2002) "Vegetation and Ecosystem Mapping". *In*: Encyclopedia of Science and Technology, 9th Edition, Volume 19. McGraw-Hill publishers, New York, NY. pp 197-203. DOI: 10.1036/1097-8542.729200

PRESENTATIONS AT SCIENTIFIC MEETINGS (*INVITED, †ORAL, ‡POSTER)

- *†**Feist, BE**, JF Samhoury, M Fisher & B Abrahms (2019) Using remote sensed vessel monitoring data to model spatio-temporal patterns of fishing activity. 2019 NOAA Environmental Data Management Workshop, Seattle, WA.
- †Fonner, R, GM Izon **BE Feist** & K Barnas (2019) Are the co-benefits of habitat restoration capitalized into local housing values? Preliminary evidence from large-scale floodplain projects in Washington State. 2019 Joint Ecological Society of America/United States Society for Ecological Economics Annual Meeting, Louisville, KY.
- *†**Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, JW Davis & NL Scholz (2019) Current and Future Vulnerability Mapping for the Coho Urban Mortality Syndrome in Puget Sound. 2019 Salmon Recovery Conference, Tacoma, WA.
- *†**Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, SE Damm, JW Davis & NL Scholz (2018) Roads to ruin: the threats of urbanization to conservation of a sentinel species. Western Division American Fisheries Society Annual Meeting, Anchorage, AK.

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- *†**Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, SE Damm, JW Davis & NL Scholz (2018) Roads to ruin: the threats of urbanization to conservation of a sentinel species. Salish Sea Ecosystem Conference, Seattle, WA.
- †**Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, SE Damm, JW Davis & NL Scholz (2018) Roads to ruin: the threats of urbanization to conservation of a sentinel species. NWFSC Biennial Science Symposium, Seattle, WA.
- †**Heery, EC**, AY Green, BE Feist & KP Sebens (2017) Urbanization-Related Distribution Patterns and Habitat Use by the Marine Generalist, Giant Pacific Octopus (*Enteroctopus dofleini*). Seattle Aquarium's Third Octopus Symposium & Workshop, Seattle, WA.
- †**Feist, BE** & ML Plummer (2017) Harnessing the motion of the ocean amidst a crowded sea of existing resource uses. 2017 Natural Capital Symposium, Palo Alto, CA.
- †**Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, SE Damm, JW Davis & **NL Scholz** (2016) Landscape scale drivers and predictions of coho salmon spawner mortality across urban gradients in Puget Sound. Salish Sea Biennial Meeting, Vancouver, BC.
- *†**Plummer, ML** & **BE Feist** (2015) Optimizing wave energy park site selection amidst a sea of competing resource uses. Coastal & Estuarine Research Federation 23rd Biennial Conference, Portland, OR.
- †**Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, SE Damm, JW Davis & NL Scholz (2015) Landscape-scale estimates of Puget Sound coho salmon spawner mortality in relation to urbanization, precipitation, and toxic stormwater runoff. American Fisheries Society Annual Meeting, Portland, OR.
- *†**Plummer, ML** & **BE Feist** (2015) Capturing energy from the motion of the ocean in a crowded sea. Mark L. Plummer Memorial Symposium, Seattle, WA
- †**Feist, BE**, ER Buhle, DH Baldwin, JA Spromberg, SE Damm, JW Davis & NL Scholz (2014) Refined Estimates of Premature Coho Salmon Spawner Mortality in Puget Sound Urban Basins in Relation to Landscape Condition and Precipitation Patterns. Salish Sea Biennial Meeting, Seattle, WA
- †**A Beaudreau**, P Levin & BE Feist (2012) Effects of climate variability on the distribution of demersal fishes in the California Current Large Marine Ecosystem. ICES/PICES Early Career Scientists Conference. Majorca Island, Spain.
- *†**Feist, BE**, ER Buhle, P Arnold, JW Davis & NL Scholz (2011) The challenge of solving complex environmental problems in urbanized systems: the case of coho spawner mortality syndrome in Puget Sound. Salish Sea Ecosystem Conference. Vancouver, British Columbia.
- †**N Tolimieri**, **J Samhuri**, BE Feist & PS Levin (2011) Ecological consequences of a precipitous decline in mean trophic level in the Northern California Current. 20th Annual North Pacific Marine Science Organization (PICES) Meeting. Khabarovsk, Russia.
- *†**Spromberg, J**, D Baldwin, BE Feist & N Scholz (2011) Estimating impacts on coho salmon populations from land use-related spawner mortality in urban streams. 141st Annual American Fisheries Society Meeting. Seattle, WA.
- †**Feist, BE**, PS Levin N Tolimieri & AH Beaudreau (2011) Spatiotemporal Patterns of Representative Groundfish Species in the California Current Large Marine Ecosystem. 141st Annual American Fisheries Society Meeting. Seattle, WA.

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- †**Hasselman, DJ**, TP Quinn, BE Feist & P Roni (2010) Range expansion of invasive American shad along the Pacific coast of North America. Cooperative Institute for Limnology and Ecosystem Research, Ann Arbor, MI.
- †**Hasselman, DJ**, TP Quinn, BE Feist & P Roni (2010) Range expansion of invasive American shad along the Pacific coast of North America. Cooperative Institute for Limnology and Ecosystem Research, Ann Arbor, MI.
- †**Feist, BE**, C Parada, K See & JL Ruesink (2009) Using ROMS ocean circulation models to predict the range expansion of non-indigenous European green crab (*Carcinus maenas*) along the west coast of North America. 18th Annual PICES Meeting. Jeju Island, South Korea.
- †**Feist, BE**, C Parada, K See & JL Ruesink (2009) Predicting the northward range expansion of non-indigenous European green crab (*Carcinus maenas*) along the west coast of North America. 6th International Conference on Marine Bioinvasions. Portland, Oregon.
- *†**Feist, BE**, P Arnold, J Davis & N Scholz (2009) Mysterious pre-spawn mortality of coho salmon in urbanized streams: there's something in the watershed. 2nd Annual South Sound Science Symposium. Shelton, Washington.
- *†**Feist, BE**, EA Steel, DW Jensen & DND Sather (2008) Does our scale of observation affect our perception of which habitat types are important for Pacific salmon? Western Division American Fisheries Society Annual Meeting. Portland, Oregon.
- *†**Feist, BE**, C Parada, K See & JL Ruesink (2008) Predicting the northward range expansion of non-indigenous European green crab (*Carcinus maenas*) along the west coast of North America. 17th Annual PICES Meeting. Dalian, China.
- *†**Feist, BE**, EA Steel, GR Pess & DW Jensen (2007) Landscape characteristics and Pacific salmon distribution: Consistent patterns across watersheds. International Association for Landscape Ecology annual meeting. Wageningen, The Netherlands.
- *†**Feist, BE**, P Arnold, J Davis, S McCarthy & N Scholz (2007) Coho pre-spawn mortality in urbanized watersheds: what does the surrounding landscape tell us? Georgia Basin Puget Sound Research Conference. Vancouver, British Columbia.
- †**Feist, BE**, CJ Harvey, JL Ruesink & AC Trimble (2007) "Inconspicuous" impacts of *Spartina alterniflora* in temperate Eastern Pacific estuaries. 5th International Conference on Marine Bioinvasions. Cambridge, Massachusetts.
- †**Davis, JW**, P Arnold, S McCarthy, J Incardona, B Feist, N Scholz, L Reed & K Lynch (2007) Impacts of Stormwater Runoff on Coho Salmon in Restored Urban Streams. 28th Annual Meeting of the Society of Environmental Toxicology and Chemistry North America, Midwest Express Center, Milwaukee, Wisconsin
- †**Feist, BE**, CJ Harvey, JL Ruesink & AC Trimble (2006) "Inconspicuous" impacts of non-indigenous species in a Pacific Northwest estuary. International Conference on Aquatic Invasive Species. Key Biscayne, Florida.

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- †**Steel, EA**, BE Feist, GR Pess, D Jensen, MB Sheer & RE Bilby (2006) Landscape Characteristics and Pacific Salmon: Consistent Patterns Across Watersheds and their Management Applications. 54th Annual Meeting of the North American Benthological Society, Anchorage, Alaska.
- *†**Feist, BE**, EA Steel, GR Pess & RE Bilby (2004) What is the correct scale for habitat analyses aimed at prioritizing restoration efforts for salmon? The Wildlife Society annual meeting. Calgary, Alberta.
- †**Steel, EA**, BL Sanderson, BE Feist, A Fullerton, MB Sheer & KM Burnett (2004) Landscape-scale analyses for understanding and managing freshwater ecosystems. World Fisheries Congress. Vancouver, British Columbia.
- †**Steel, EA**, MB Sheer, BE Feist, GR Pess, D Jensen & RE Bilby (2004) Barriers to migration fundamentally alter aquatic landscapes: Can models identify the best restoration opportunities? International Association for Landscape Ecology annual meeting. Las Vegas, Nevada.
- *†**Feist, BE**, CJ Harvey, JL Ruesink & AC Trimble (2004) The influence of non-indigenous smooth cordgrass, *Spartina alterniflora*, on estuarine ecosystems of the Pacific Northwest. International Association for Landscape Ecology annual meeting. Las Vegas, Nevada.
- †**Beechie, TJ**, M Pollock, BE Feist, G Pess & P Roni (2003) From deserts to rain forests: erosion regimes and the recovery of Pacific salmon. The Geological Society of America annual meeting. Seattle, Washington.
- †**Feist, BE**, CJ Harvey, JL Ruesink, AC Trimble & N Richardson (2003) The influence of non-indigenous smooth cordgrass, *Spartina alterniflora* on food web dynamics in Pacific Northwest estuaries Part II: Spatio-temporal patterns of oyster growth and diet. Estuarine Research Federation annual meeting. Seattle, Washington.
- †**Harvey, CJ**, BE Feist, JL Ruesink, AC Trimble & LM McCoy (2003) The influence of non-indigenous smooth cordgrass, *Spartina alterniflora* on food web dynamics in Pacific Northwest estuaries Part I: System scale influence on oyster diets. Estuarine Research Federation annual meeting. Seattle, Washington.
- †**Feist, BE**, R Hilborn & CA Simenstad (2002) A Simple Model for Predicting Recruitment and Expansion of Non-indigenous Smooth Cordgrass, *Spartina Alterniflora* (Loisel). American Society of Limnology and Oceanography annual meeting. Victoria, British Columbia.
- †**Rice, C**, CA Simenstad & BE Feist (2002) Assessment and Monitoring of Temperate Estuarine Restoration Activities, with Special Emphasis on Anadromous Salmonid Recovery in the Pacific Northwest. Toward Ecosystem-Based Management: Breaking Down the Barriers in the Columbia River Basin and Beyond. Spokane, Washington.
- ‡**Beechie, TJ**, A Senauer, M Liermann & BE Feist (2002) Alteration of channel and ecosystem dynamics downstream of Elwha Dams. American Society of Limnology and Oceanography annual meeting. Victoria, British Columbia.
- *†**Feist, BE**, EA Steel, GR Pess & RE Bilby (2001) What is the correct scale for habitat analyses aimed at prioritizing restoration efforts for salmon? CAL-Nevada/Humboldt Chapters American Fisheries Society. Santa Rosa, California.

Blake E. Feist

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- †**Feist, BE**, EA Steel, GR Pess & RE Bilby (2000) A landscape scale, spatially explicit model for predicting Pacific salmon (*Oncorhynchus* spp.) productivity in the Pacific Northwest, USA. Modeling Complex Systems. Montreal, Quebec.
- †**Feist, BE**, EA Steel, GR Pess & RE Bilby (2000) A coarse-scale, spatially explicit model for predicting Pacific salmon (*Oncorhynchus* spp.) abundance as a function of land cover and land use in the Pacific Northwest, United States. Western Region American Fisheries Society. Telluride, Colorado.
- †**Bilby, RE**, GR Pess, BE Feist & EA Steel (2000) Relating Pacific salmon abundance to habitat and land use attributes. One Hundred Thirtieth Annual American Fisheries Society. St. Louis, Missouri.
- *†**Feist, BE**, EA Steel, GR Pess & RE Bilby (2000) Speaker/panelist for GIS in Action Conference, Portland, Oregon.
- †**Feist, BE** & CA Simenstad (1998) Predicting the expansion of smooth cordgrass, *Spartina alterniflora* (Loisel), in Willapa Bay, Washington, using spatial analysis, matrix models, and Geographic Information Systems (GIS). Nineteenth Annual Society of Wetland Scientists (SWS). Anchorage, Alaska.
- †**Feist, BE** & CA Simenstad (1998) Predicting the expansion of smooth cordgrass, *Spartina alterniflora* (Loisel), in Willapa Bay, Washington, using spatial analysis, matrix models, and Geographic Information Systems (GIS). Joint Pacific Estuarine Research Society/Northwest Algal Symposium. Whidbey Island, Washington.
- †**Cordell, JR**, CA Simenstad, BE Feist, KL Fresh, RM Thom, DJ Stouder & V Luiting (1998) Ecological effects of *Spartina alterniflora* invasion of the littoral flat community in Willapa Bay, Washington. Eighth International Zebra Mussel and Other Nuisance Species Conference. Sacramento California.
- †**Feist, BE** & CA Simenstad (1997) Predicting the expansion of smooth cordgrass, *Spartina alterniflora* (Loisel), in Willapa Bay, Washington, using spatial analysis and Geographic Information Systems (GIS). One Hundred Twenty Seventh Annual American Fisheries Society. Monterey, California.
- †**Feist, BE** & CA Simenstad (1996) Changes in elevation and vegetation over time in a restored wetland as measured with a total station Global Positioning System (GPS). One Hundred Twenty Sixth Annual American Fisheries Society. Dearborn, Michigan.
- ‡**Wyllie-Echeverria, S**, BE Feist, JR Cordell, AM Olson & CA Simenstad (1995) Subtidal eelgrass surveys in Puget Sound Basin: A videographic approach. Third Thematic Conference: Remote Sensing for Marine and Coastal Environments. Seattle, Washington.
- †**Feist, BE** & CA Simenstad (1995) Wetland sampling using a differential real-time global positioning system (GPS). Society of Wetland Scientists. Spokane, Washington.
- †**Feist, BE** & CA Simenstad (1993) A spatial analysis and model of the expansion of various populations of *Spartina alterniflora* in Willapa Bay, Washington. Pacific Estuarine Society/Society of Wetland Scientists. Long Beach, Washington.

CURRICULUM VITAE

Northwest Fisheries Science Center
2725 Montlake Blvd E
Seattle, WA 98112
tel: 206-860-3408
blake.feist@noaa.gov

Blake E. Feist

PROFESSIONAL SERVICES

- Reviewer for proposals submitted to: Bonneville Power Administration; NOAA Sea Grant; Salmon Recovery Funding (SRF) Board; NIST Construction Grant Program; and, the U.S. Department of Agriculture
- Reviewer for book chapters and manuscripts submitted to peer reviewed journals: *Belgian Journal of Botany*; *Biological Conservation*; *Conservation for the Anthropocene Ocean*, *Conservation Letters*; *Ecological Applications*; *Ecological Research*; *Environmental Biology of Fishes*; *Environmental Monitoring and Assessment*; *Estuaries*; *Frontiers in Ecology and the Environment*; *Hydrobiologia*; *Journal of Maps*; *Landscape Ecology*; *Marine & Coastal Fisheries*; *Marine Ecology Progress Series*; *NeoBiota*; *Public Library of Science ONE*; *Remote Sensing*; *River Systems*; and, *Transactions of the American Fisheries Society*.
- 2018 Invited guest speaker for University of Washington course entitled: “Principles of Sustainability” (ESRM 300)
- 2016- NOAA Cetacean Entanglement Risk Steering Committee Member
- 2012- Contributor for John Wiley & Sons, “Encyclopedia of Environmetrics”
- 2002- Contributor for McGraw-Hill, “Encyclopedia of Science and Technology”
- 2006-12 PICES Aquatic Non-indigenous Species Working Group Member
- 2005-11 Panelist with Western Regional Panel on Aquatic Nuisance Species
- 2005-10 NOAA Aquatic Invasive Species Program West Coast Liaison
- 2005-10 Non-Indigenous Species Point of Contact for the Northwest Fisheries Science Center
- 2001-10 Creator and coordinator of Northwest Fisheries Science Center Weekly Seminar Series
- 2005 Invited guest speaker for University of Washington Extension Certificate Program in Wetland Science and Management
- 2005-08 Member of the Aquatic Nuisance Species Task Force Research Committee
- 2004-08 Assistant Faculty member at Oregon State University
- 2004-08 Ph.D. committee member for Francisco Madrinan, Oregon State University
- 2001 Member of Salmon Recovery Funding (SRF) Board technical advisory panel
- 2001 Invited guest lecturer for University of Washington Marine Biology Course (FISH 250)
- 2001 Invited guest lecturer for University of Washington Course: Role of Habitat in Salmon Recovery (ENVIR 500)
- 2000 Invited guest speaker for University of Washington Extension Certificate Program in Wetland Science and Management
- 1998 Chairperson of Natural Processes session C at the 19th Annual Meeting of the Society of Wetland Scientists, Anchorage, Alaska.

CURRICULUM VITAE

**Northwest Fisheries Science Center
2725 Montlake Blvd E
Seattle, WA 98112
tel: 206-860-3408
blake.feist@noaa.gov**

Blake E. Feist

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- 1997 Invited guest speaker for University of Washington Autumn Lecture Series at the Center for Urban Horticulture entitled “The Management of Invasive Organisms in Urban and Natural Ecosystems” (UHF 549)
 - 1997 Recruiting officer for the Estuaries Section of the American Fisheries Society (AFS)
 - 1997 Invited guest speaker for University of Washington Extension Certificate Program in Wetland Science and Management
 - 1996 Invited guest speaker for University of Washington Extension Certificate Program in Wetland Science and Management
 - 1996 Invited guest speaker for University of Washington course entitled “Computers in Landscape Architecture” (LARC 440A)
 - 1993 Co-Organizer of the Fourth Annual Graduate Student Symposium, University of Washington, School of Fisheries
 - 1993 Member of Fisheries Interdisciplinary Network of Students Committee (FINS), School of Fisheries, University of Washington

RESEARCH GRANTS AND CONTRACTS

- 2010 NOAA Aquatic Invasive Species Program/Cooperative Institute for Limnology and Ecosystems Research, \$240k
- 2009 Northwest Fisheries Science Center Weekly Seminar Series \$25.5k
- 2008 Northwest Fisheries Science Center Weekly Seminar Series \$24k
- 2008 National Oceanic and Atmospheric Administration Aquatic Invasive Species Program, “Improving European Green Crab Range Expansion Forecasting by Integrating Environmental Niche, Habitat Capability, and Ocean Circulation Modeling Techniques”, \$41k
- 2007 Northwest Fisheries Science Center Weekly Seminar Series \$20k
- 2007 National Oceanic and Atmospheric Administration Aquatic Invasive Species Program, “The Potential Spatial Range and Ecological Impacts of European Green Crab along the Northeast Coast of the Pacific Ocean”, \$51k
- 2006 Northwest Fisheries Science Center Weekly Seminar Series \$24k
- 2006 National Oceanic and Atmospheric Administration Aquatic Invasive Species Program, “The Potential Range of Green Crab Infestations on the West Coast of North America”, \$41k
- 2005 Northwest Fisheries Science Center Weekly Seminar Series \$32.5k
- 2004 U.S. Bureau of Reclamation, “Application of Advanced Spectral Remote Sensing in Assessment, Monitoring, and Modeling for the Anadromous Salmonids of the Columbia River Basin Ecosystem”, \$300k (2 years)
- 2004 Northwest Fisheries Science Center Weekly Seminar Series \$32k
- 2003 Northwest Fisheries Science Center Weekly Seminar Series \$24.5k
- 2002 Northwest Fisheries Science Center Weekly Seminar Series \$21k
- 2001 Northwest Fisheries Science Center Internal Grants Program, Sediment Budget Modeling, \$28k (2 years)
- 2002 Northwest Fisheries Science Center Internal Grants Program, Food Web Dynamics in Invaded Estuaries, \$29k (2 years)

CURRICULUM VITAE

**Northwest Fisheries Science Center
2725 Montlake Blvd E
Seattle, WA 98112
tel: 206-860-3408
blake.feist@noaa.gov**

Blake E. Feist

2003 National Oceanic and Atmospheric Administration Aquatic Nuisance Species Program, Landscape Controls on the Invasion of Exotic Estuarine Plants, \$60k

EXTRACURRICULAR

- Classically trained string bass player. Have performed professionally with various symphonies, jazz ensembles, and pop music groups.
- Avid cyclist
- Amateur horologist
- Oenophile

CURRICULUM VITAE

**Northwest Fisheries Science Center
2725 Montlake Blvd E
Seattle, WA 98112
tel: 206-860-3408
blake.feist@noaa.gov**

Blake E. Feist

REFERENCES

Dr. Jameal Samhour, Program Manager
Northwest Fisheries Science Center
2725 Montlake Blvd E
Seattle, WA 98195-7980
206/302-1740
jameal.samhour@noaa.gov

Dr. Phillip Levin, Lead Scientist & Professor of Practice
The Nature Conservancy and the University of Washington
Box 351200
Seattle, WA 98195
206/343-4344
phillip.levin@tnc.org

Dr. Chris Jordan, Program Manager
Northwest Fisheries Science Center
2725 Montlake Blvd E
Seattle, WA 98195-7980
206/860-3423
chris.jordan@noaa.gov