Associate Professor and Director
Aquatic Research & Environmental Assessment Center
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PROFESSIONAL POSITIONS

Aug. 2023 - present **Associate Professor and Director**
Aquatic Research and Environmental Assessment Center
Department of Earth and Environmental Sciences, Brooklyn College, Brooklyn NY
As Associate Professor in Earth and Environmental Sciences, I lead a cooperative fisheries and aquatic science research program working with State, Federal, non-governmental, industry, and academic partners. I integrate quantitative science + ecology + socioeconomic research to advance solutions to aquatic resource management problems spanning from local case studies to seascape scales. I am also the Director of the Aquatic Research and Environmental Assessment Center at Brooklyn College (www.brooklyn.edu/areac/). AREAC is a hands-on experimentation laboratory and a center of innovation for aquatic ecosystem sustainability science. Under my Director role, I lead the strategic vision for AREAC and am responsible for program administration, fiscal management, outreach, and engagement activities.

Feb. 2022 – Aug. 2023 **Assistant Unit Leader and Courtesy Associate Professor**
U.S. Geological Survey NY Cooperative Fish and Wildlife Research Unit
Department of Natural Resources & the Environment, Cornell University

Feb. 2016 – Feb. 2022 **Assistant Unit Leader and Courtesy Assistant Professor**
U.S. Geological Survey NY Cooperative Fish and Wildlife Research Unit
Department of Natural Resources & the Environment, Cornell University

Feb. 2011 – Feb. 2016 **Regional Biometrician**
U.S. Fish and Wildlife Service, Anchorage, AK

EDUCATION

2011	Ph.D. Fisheries Science, University of Washington-Seattle
2007	M.S. Fisheries Science, University of Washington-Seattle
2001	B.S. Zoology, University of Wisconsin-Madison

AWARDS, HONORS, and AFFILIATE APPOINTMENTS

2023-present	Adjunct Faculty, Dept. of Natural Resources & the Environment, Cornell University
2016-present	University Fellow, Ulster University
2014-present	Affiliate Faculty, Alaska Pacific University
2016-2023	Faculty Fellow, Cornell Atkinson Center for Sustainability
2020	USGS Quality Step Increase award for exceptional performance
2019	Ulster University Excellence Award for International Collaboration
2017	USGS Scientific Excellence Award to the NY Coop Fish and Wildlife Unit (Profs. A Fuller and SA Sethi)
2015	Fish and Wildlife Service STAR award for scientific excellence
2015	U.S. Fish and Wildlife Service Alaska Region Director's Award for scientific excellence
2013-2014	Scholar in Residence, Alaska Pacific University, Anchorage, AK
2012	Fish and Wildlife Service STAR award for scientific excellence
2010	UW Faculty Merit Award for outstanding achievement
2007-2010	NSF Graduate Research Fellow

2007	NSF Foreign Language Area Study Fellow
2005-2008	ARCS Fellow
2005-2006	UW GOMAP Scholar

PUBLICATIONS

Journal articles

95. Alvarez del Castillo K, **Sethi SA**, Won E, Maniscalco J, Pendleton R, Ryan E, Rudstam LG. Salinity tolerance of Round Goby: informing invasion potential in North American coastal watersheds. *PLoS ONE*, In press.

94. Harris BP*, **Sethi SA***, Restrepo F, Grabowski JH, Stokesbury K (2025) Natural and fishing disturbances combine to drive seafloor conservation outcomes from spatial closures on Georges Bank. *Biological Conservation*, 302: 110883. **Harris and Sethi share joint first author.*

93. Heilpern S, Flecker AS, Lopez-Casas S, McIntyre PB, Moya L, **Sethi SA**, Fiorella KJ (2024) Aligning conservation and public health with nutritious, low mercury and resilient fishes. *One Earth*, In press.

92. Pacheco FS, Heilpern SA, DiLeo C, Almeida RM, **Sethi SA**, …., Gomes CP, Flecker AS (2024) Towards sustainable aquaculture in the Amazon. *Nature Sustainability*, In press.

91. Stich DS, Fox DA, Higgs AL, Kayzak D, Pendleton RM, **Sethi SA** (2024) Reconstructing relative abundance indices for Atlantic sturgeon using hierarchical ecological models. *Transactions of the American Fisheries Society*, In press.

90. Brown TA, Rudstam LG, **Sethi SA**, …, Honsey AE (2024) Reconstructing half a century of *Coregonine* recruitment across the Laurentian Great Lakes revealed species-specific dynamics. *ICES Journal of Marine Science*, In press. *This PhD student (T. Brown) paper was selected as the **'Editor's Choice'** article at ICES JMS*.

89. Dick CM, Larson WA, Karpan K, Baetscher D, Shi Y, **Sethi SA**, Fangue N, Henderson MJ (2024) How do predator species, temperature, and prey ration influence molecular diet analyses? Insights from a controlled feeding experiment. *Molecular Ecology Resources*, In press.

88. Evans T, Rudstam LG, **Sethi SA**, …, Esselman P (2024) Paired comparisons with quiet surface drones show evidence of fish behavioral response to motorized vessels during acoustic surveys in Lake Superior. *Canadian Journal of Fisheries and Aquatic Sciences*, 81:1740-1751.

87. Shi Y, Dick CM, Karpan K, Baetscher D, Henderson MJ, **Sethi SA**, McPhee M, Larson WA (2024) Towards absolute abundance for conservation applications: estimating the number of contributors via microhaplotype genotyping of mixed-DNA samples. *Molecular Ecology Resources*, In press.

86. Poulton AJ, Villegas-Rios D, Freitas C, Moland, E, Olsen EM, **Sethi SA**, Ellner SP (2024) Bayesian estimation of spatially varying mortality risk using tagged animal data. *Methods in Ecology and Evolution*, 15, 2101-2117.

85. Lutter S, Cuppett S, **Sethi SA**, Rahm B (2024) Social considerations for the removal of dams and other aquatic barriers. *BioScience*, biae037.

84. Sethi SA, Koeberle AL, Poulton AJ, Linden DW, Diefenbach D, Buderman F, Casalena MJ, Duren K (2024) Multistage time-to-event models improve survival inference by partitioning mortality processes of tracked organisms. *Scientific Reports*, 14:14628.

83. Brown TA, Rudstam LG, **Sethi SA**, …, Honsey A (2024) Synthesizing professional opinion of lake whitefish and cisco recruitment drivers across the Great Lakes. *Laurentian*, 2024-01.

82. Fitzpatrick KBF, Therkildsen NO, Marcy-Quay B, Borchart-Weir H, **Sethi SA** (2023) Parentage-based tagging using mothers balances accuracy and cost for discriminating between natural and stocked recruitment for inland fisheries. *Fisheries Management & Ecology*, 30:592-602.

81. Koeberle AL, Pearsall W, Hammers BE, Mulhall D, McKenna JE, Chalupnicki MC, **Sethi SA** (2023) Whole-lake acoustic telemetry to evaluate survival of stocked juvenile fish. *Scientific Reports*, 13:18956.

80. Couto T, **Sethi SA** (2023) River-to-sea ecosystem management. *Nature Sustainability*, November 2.

79. Evans TM, Rudstam LG, **Sethi SA**, Barnard A, …, Esselman P (2023) Fish avoidance of ships during acoustic surveys tested with quiet uncrewed surface vessels. *Fisheries Research*, 267:106817.

78. Andres K, Lodge DL, **Sethi SA**, Andres J (2023) Detecting and analyzing intraspecifc genetic variation with eDNA: from population genetics to species abundance. *Molecular Ecology*, 32:4118-4132.

77. Brown TA, Rudstam LG, Holden JP, Weidel BC, Ackiss AS, Ropp AJ, Chalupnicki M, McKenna JE, **Sethi SA** (2023) Larval cisco and lake whitefish exhibit high distributional overlap within nursery habitats. *Ecology of Freshwater Fish*, 32:804-823.

76. Poulton A, **Sethi SA**, Ellner SP, Smeltz TS (2023) Optimal dynamic spatial closures can improve fishery yield and reduce fishing-induced habitat damage. *Canadian Journal of Fisheries and Aquatic Sciences*, 80:893-912. *This PhD student (A. Poulton) paper was selected as the **'Editor's Choice'** article for the June 2023 issue of CJFAS*.

75. Subalusky AL, **Sethi SA**, Anderson EP, Jimenez D, Echeverri Lopez D, Garcia-Restrepo S, Nova Leon LJ, Reatiga Parrish JF, Post DM, Rojas A (2023) Rapid population growth and high management costs have created a narrow window for control of introduced hippos in Colombia. *Scientific Reports*, 13:6193.

74. Carey M, Reeves G, **Sethi SA**, Tanner TL, Young DB, Bartz KK, Zimmerman CE (2023) Elodea mediates juvenile salmon growth by altering physical structure in freshwater habitats. *Biological Invasions*, 25:1509-1525.

73. Beatty W, Lemons P, Everett JP, Lewis CJ, Taylor RL, Lynn RJ, **Sethi SA**, Quakenbush L, Citta J, Kissling M, Kryukova N, Wenburg JK (2022) Estimating Pacific walrus abundance and survival with multievent mark-recapture models. *Marine Ecology Progress Series*, 697:167-182.

72. Pendleton R, Berdan R, George S, Kenney G, **Sethi SA** (2022) Round Goby captured in a North American estuary: status and implications in the Hudson River, New York. *Journal of Fish and Wildlife Management*, 13:524-533.

71. Heilpern S, **Sethi SA**, Barthem RB, Doria CRC, Garcia-Vasquez A, Goulding M, Isaac V, Batista V, Duponchelle F, Naeem S, Flecker AS (2022) Biodiversity underpins fisheries resilience to exploitation in the Amazon river basin. *Proceedings of the Royal Society B*, 389:20220726

70. Sethi SA, Carey MP, Gerken J, Harris B, Cunningham C, Wolf N, Restrepo F, Ashline J (2022) Juvenile salmon habitat use drives variation in growth and highlights vulnerability to river fragmentation. *Ecosphere*, 13:e4192.

69. Lynch A, Rahel F, Limpinsel D, **Sethi SA**, Engman A, Lawrence DJ, Mills KE, Morrison W, Peterson JO, Porath MT (2022) Ecological and social RAD strategies for managing fisheries in transforming aquatic ecosystems. *Fisheries Management and Ecology*, 29:329-345.

68. Fitzpatrick KB, Weidel BC, Connerton MJ, Lantry J, Holden JP, Yuille M, Lantry B, LaPan S, Rudstam LG, Sullivan P, Brenden TO, **Sethi SA**. (2022) Balancing prey availability and predator consumption: a multispecies stock assessment for Lake Ontario. *Canadian Journal of Fisheries and Aquatic Sciences*, 79:1529-1545.

67. Flecker AS, Gomes C, … **Sethi SA**, …, et al. (2022) Reducing adverse impacts of Amazon hydropower expansion. *Science*, 375:753-760.

66. Lynch A, Thompson L, … **Sethi SA**, …, et al. (2022) RAD adaptive management for transforming ecosystems. *Bioscience*, 72:45-56.

65. Brown T, **Sethi SA**, Rudstam L, Holden J, Connerton M, Gorsky D, Karboski CT, Chalupnicki M, Sard NM, Roseman EF, Prindle SE, Sanderson JM, Evans TM, Cooper A, Reinhart DJ, Davis C, Weidel B. (2022) Contemporary spatial extent and environmental drivers of larval coregonine distributions across Lake Ontario. *Journal of Great Lakes Research*, 48:359–370.

64. Paufve MR, **Sethi SA**, Weidel BC, Lantry BF, Yule DL, Rudstam LG, Jonas JJ, Berglund E, Connerton MJ, Gorsky D, Herbert M, Smith J. (2022) Diversity in spawning habitat use among Great Lakes Cisco populations. *Ecology of Freshwater Fish*, 31: 379-388.

63. Buchanan B, **Sethi SA**, Cuppett S, Lung M, Jackman G, Zarri L, Duvall E, Dietrich J, Sullivan P, Dominitz A, Archibald J, Flecker A, Rahm B. (2022) A machine learning approach to identify barriers in stream networks demonstrates high prevalence of unmapped riverine dams. *Journal of Environmental Management*, 302:113952.

62. Almeida R, Fleischmann A, Brêda JPF, Cardoso DS, Angarita H, Collischonn W, Forsberg B, García-Villacorta R, Hamilton SK, Hannam PM, Paiva R, Poff NL, **Sethi SA**, Shi Q, Gomes C, Flecker AS. (2021) Climate change may impair electricity generation and economic viability of future Amazon hydropower. *Global Environmental Change*, 71:102383.

61. Lynch A, Thompson L, … **Sethi SA**, …, et al. (2021) Managing for RADical Ecosystem Change: Applying the Resist, Accept, or Direct (RAD) Framework. *Frontiers in Ecology and the Environment*, 19:461-469.

60. Cusack C, **Sethi SA**, Rice A, Warren J, Fujita R, Ingles J, Flores J, Garchitorena E, Mesa SV. (2021) Marine ecotourism for small pelagics provides alternative income generating activities to fisheries in a tropical community. *Biological Conservation*, 261:109242.

59. Heilpern S, DeFries R, Fiorella K, Flecker A, **Sethi SA**, Uriarte M, Naeem S. (2021) Declining diversity of wild-caught species puts dietary nutrient supplies at risk. *Science Advances*, 7:eabf9967.

58. McKenna J, **Sethi SA**, Scholten GM, Kraus J, Chalupnicki M. (2021) Acoustic tag retention and tagging mortality of juvenile Cisco, *Coregonus artedi*. *Journal of Great Lakes Research*, 47:937-942.

57. Heilpern S, Fiorella K, Canas C, Flecker A, Moya L, Naeem S, **Sethi SA**, Uriarte M, DeFries R. (2021) Substitution of inland fisheries with aquaculture and chicken undermines human nutrition in the Peruvian Amazon. *Nature Food*, 2:192-197.

56. Andres KA, **Sethi SA**, Lodge D, Andres J. (2021) Nuclear eDNA estimates population allele frequencies and abundance in experimental mesocosms and field samples. *Molecular Ecology*, 30:658-697.

55. Murphy RD, Hagan JA, Harris BP, **Sethi SA**, Smeltz TS, Restrepo F. (2021) Can Landsat thermal imagery and environmental data accurately estimate water temperatures in small streams? *Journal of Fish and Wildlife Management*, 12:12-26.

54. Sethi SA, Ashline J, Harris B, Gerken J, Restrepo F. (2021) Connectivity between lentic and lotic freshwater habitats identified as a conservation priority for coho salmon. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 31:1791-1801.

53. Thompson L, Lynch A, … **Sethi SA**, …, et al. (2021) Responding to ecosystem transformation: resist, accept, or direct? *Fisheries*, 46:8-21.

52. Marcy-Quay B, **Sethi SA**, Therkildsen NO, Kraft CE. (2020) Expanding the feasibility of fish and wildlife assessments with close-kin mark-recapture. *Ecosphere*, 11:e03259.

51. Cook GM, Prince DJ, O'Rourke SM, King TL, Miller MR, Lewis CJ, Eackles MS, Lemons PR, **Sethi SA**, Olsen JB, Wenburg JK. (2020) A little SNP of this, a little SNP of that: the discovery of 116 single nucleotide polymorphism markers to enable the rapid identification of individual Pacific walrus (*Odobenus rosmarus divergens*). *Conservation Genetics Resources*, 12:555-565.

50. Paufve MP, **Sethi SA**, Rudstam L, Weidel BC, Lantry BF, Chalupnicki M, Dey K, Herbert M. (2020) Differentiation between Lake Whitefish and Cisco eggs based on diameter. *Journal of Great Lakes Research*, 46:1058-1062.

49. Beatty WS, Lemons PR, **Sethi SA**, Everett J, Lewis CJ, Lynn RJ, Cook GM, Garlich-Miller JL, Wenburg JK. (2020) Panmixia in a sea ice-associated marine mammal: evaluating genetic structure of the Pacific walrus (*Odobenus rosmarus divergens*) at multiple spatial scales. *Journal of Mammalogy*, 101:755-765.

48. Andres K, **Sethi SA**, Duskey E, Lepak JM, Rice AN, Estabrook B, Fitzpatrick K, George E, Marcy-Quay B, Paufve M, Perkins K, Scofield AE. (2020) Seasonal habitat use indicates depth may mediate the potential for invasive round goby impacts in inland lakes. *Freshwater Biology*, 65:1337-1347.

47. Fitzgerald T, Higgins P, Quilligan E, **Sethi SA**, Tobin J. (2020) Catalyzing fisheries conservation investment. *Frontiers in Ecology and the Environment*, 18:151-158.

46. Moriarty M, **Sethi SA**, Pedreschi D, Smeltz TS, McGonigle C, Harris BP, Wolf N, Greenstreet SPR. (2020) Combining fisheries surveys to inform marine species distribution modelling. *ICES Journal of Marine Science*, 77:539-552.

45. Riggs W, **Sethi SA**. (2020) Multimodal travel behavior, walkability indices and social mobility: how neighborhood walkability, income and household characteristics guide walking, biking and transit decisions. *Local Environment*, 25:57-68.

44. Rose C, Nielsen J, Gauvin J, Loher T, **Sethi SA**, Seitz A, Courtney M, Drobny P (2019) Pacific halibut (*Hippoglossus stenolepis*) survival after release from trawl catches through expedited sorting: Deploying advanced tags in quantity (160) reveals patterns in survival outcomes. *Canadian Journal of Fisheries and Aquatic Sciences*, 76:2215-2224.

43. Almeida RM, Shi Q, Gomes-Selman J, Wu X, Xue Y, Angarita H, Barros N, Forsberg BR, Garcia-Villacorta R, Hamilton SK, Melack JM, Montoya M, Perez G, **Sethi SA**, Gomes CP, Flecker AS (2019) Reducing greenhouse gas emissions of Amazon hydropower with optimal dam planning. *Nature Communications*, 12:4281.

42. Smeltz TS, Harris B, Olson J, **Sethi SA** (2019) A discrete time seascape model to support management of benthic habitat impacts from fishing. *Canadian Journal of Fisheries and Aquatic Sciences*, 76:1836-1844.

41. Paufve MR, **Sethi SA**, Lantry BF, Weidel BC, Rudstam LG (2019) Assessing the spawning ecology of fish in situ using a benthic pump sampler. *Fisheries Research*, 214:19-24.

40. Pendleton R, Standley CR, Higgs AL, Kenney GH, Sullivan PJ, **Sethi SA**, Harris B (2019) Acoustic telemetry and benthic habitat mapping informs the spatial ecology of Shortnose Sturgeon in the Hudson River, NY, USA. *Transactions of the American Fisheries Society*, 148:35-47.

39. Sethi SA, Larson W, Turnquist K, Isermann D (2019) Estimating the number of contributors to DNA mixtures provides a novel tool for ecology. *Methods in Ecology and Evolution*, 10:109-119.

38. Sethi RA, Mayadev J, **Sethi SA**, Rash D, Chen L-M, Brooks R, Ueda S, Hsu I-C (2019) Patterns of recurrence in node positive cervical cancer patients treated with contemporary chemoradiation and dose escalation: A multi-institutional study. *Practical Radiation Oncology*, 9:e180-e186.

37. Wolf N, Harris B, Richard N, **Sethi SA**, Lomac-MacNair K, Parker L (2018) High-frequency aerial surveys inform the seasonal distribution of Cook Inlet beluga whales. *Wildlife Society Bulletin*, 42:577-586.

36. Calvert J, McGonigle C, **Sethi SA**, Harris B, Quinn R, Grabowski J (2018) Dynamic occupancy modelling of temperate marine fish in area-based closures. *Ecology and Evolution*, 8: 10192-10205.

35. Shi Q, Garcia R, Flecker A, **Sethi SA**, Gomes C (2018) Efficiently optimizing for dendritic connectivity on tree-structured networks in a multi-objective framework. *Conference on Computation and Sustainable Society 2018.*

34. Sethi SA, Bradley C, Harris F (2018) Separate tagging versus capture impacts on chum salmon (*Oncorhynchus keta*) freshwater spawning migration travel time performance? *Fisheries Management and Ecology*, 25:296-303.

33. Winemiller K, Fujiwara M, Cunha E, Agostinho A, Gomes LC, Flecker AS, **Sethi SA** (2018) Designer flows for the Tonle Sap—good idea but wrong recommendation. *Science*: eLetter, March 5, 2018.

32*. Wu X, Gomes-Selman J, Shi Q, Yexiang Xue, Garcia R, Anderson E, **Sethi SA**, Steinschneider S, Flecker A, Gomes C (2018) Efficiently approximating the pareto frontier: hydropower dam placement in the Amazon basin. *Proceedings of the Thirty-Second AAAI Conference on Artificial Intelligence.*

31. Sethi SA, O'Hanley JR, Gerken J, Ashline J, Bradley C (2017). High value of ecological information for river connectivity restoration. *Landscape Ecology*, 32:2327-2336.

30. Sethi SA, Carey MP, Morton J, Guerron-Orejuela E, Decino R, Willette M, Boersma J, Jablonski J, Anderson C (2017) Rapid response for invasive waterweeds at the arctic invasion front: assessment of collateral impacts from herbicide treatments. *Biological Conservation*, 212:300-309.

29. Bradley C, **Sethi SA**, Ashline J, Gerken J (2017) Cohort-specific variation in juvenile coho salmon habitat use. *Ecology of Freshwater Fish*, 26:695-706.

28. Sethi SA, Gerken J, Ashline J (2017) Accurate aging of juvenile salmonids using fork lengths. *Fisheries Research*, 185:161-168.

27. Sethi SA, Linden D, Wenburg J, Lewis C, Lemons P, Fuller A, Hare M (2016) Accurate recapture identification for genetic mark–recapture studies with error-tolerant likelihood-based match calling and sample clustering. *Royal Society Open Science*, 3:160457.

26. Walsh P, **Sethi SA**, Lake B, Mangipane B, Nielson R, Lowe S (2016) Estimating denning date of wolves with daily movement and GPS location fix failure. *Wildlife Society Bulletin*, 40:663-668.

25. Kaiser MJ, et al. (2016) Prioritisation of knowledge needs to achieve best practices for bottom-trawling in relation to seabed habitats. *Fish and Fisheries*, 17:637-663.

24. Sethi SA, Bradley C (2016) Statistical arrival models to estimate missed passage counts at fish weirs. *Canadian Journal of Fisheries and Aquatic Sciences*, 73:1251-1260.

23. Carey M, **Sethi SA**, Larsen S, Rich C (2016) A primer on potential impacts, management priorities, and future directions for Elodea spp. in high latitude systems: learning from the Alaskan experience. *Hydrobiologia*, 777:1-19.

22. Micheli F, Heiman KW, Kappel CV, Martone RL, **Sethi SA,** Osio GC, Fraschetti S, Shelton AO, Tanner JM (2016) Combined impacts of natural and human disturbances on rocky shore communities. *Ocean and Coastal Management*, 126:42-50.

21. Ray J, **Sethi SA**, Joyce JE, Eiler JH (2015) Prespawning movements and spawning distribution of Sockeye Salmon in an urbanizing Alaskan lake. *Journal of Fish and Wildlife Management*, 6:472-485.

20. Sethi SA, Hollmen T (2015) Conceptual models for marine and freshwater systems in Alaska: flexible tools for research planning, prioritization and communication. *Arctic*, 68:422-434.

19. Clark SC, Tanner TL, **Sethi SA**, Bentley KT, Schindler DE (2015) Migration timing of adult Chinook salmon into the Togiak River (Alaska) watershed: Is there evidence for stock structure? *Transactions of the American Fisheries Society*, 144:829-836.

18. Lemons PR, Marshall TC, McCloskey SE, **Sethi SA**, Schmutz JA, Sedinger JS (2015) A new likelihood-based approach for assessment of extra-pair paternity and conspecific brood parasitism in natural populations. *Molecular Ecology Resources*, 15:107-116.

17. Sethi RA, Rush SC, Liu S, **Sethi SA**, Parker E, et al. (2015) Dose-response relationships for meningioma radiosurgery. *American Journal of Clinical Oncology*, 38:600-604.

16. Sethi SA, Tanner T. (2014) Spawning distribution and abundance of a northern Chinook population. *Fisheries Management and Ecology*, 21:427-438.

15. Sethi RA, Mayadev JS, **Sethi SA**, Rash DL, Chen L, Hsu I (2014) A multi-institutional study of lymph node–positive cervical cancer patients treated in the modern era of chemoradiation. *International Journal of Radiation Oncology - Biology Physics*, 90:S488.

14. Sethi SA, Cook G, Lemons P, Wenburg J (2014) Guidelines for MSAT and SNP panels that lead to high quality data for genetic mark recapture studies. *Canadian Journal of Zoology*, 92:515-526.

13. Sethi SA, Reimer M, Knapp G (2014) Alaskan fishing community revenues and the stabilizing role of fishing portfolios. *Marine Policy*, 48:134-141.

12. Sethi SA, Riggs W, Knapp G (2014) Metrics to monitor the status of Alaskan fishing communities: a state-of-the-State retrospective 1980-2010. *Ocean and Coastal Management*, 88:21-30.

11. Sethi SA, Benolkin E (2013) Detection efficiency and habitat use to inform inventory and monitoring efforts: juvenile Coho salmon in the Knik River basin, Alaska. *Ecology of Freshwater Fish*, 22:398-411.

10. Sethi SA, Tanner T (2013) Bayesian implementation of a time stratified Lincoln-Petersen estimator for salmon abundance in the Matanuska River, Alaska, USA. *Fisheries Research*, 145:90-99.

9. Sethi SA, Dalton M (2012) Risk measures for natural resource management: description, simulation testing and R code with fisheries examples. *Journal of Fish and Wildlife Management*, 3:150-157.

8. Sethi SA, Dalton M, Hilborn R (2012) Managing harvest risk with catch pooling cooperatives. *ICES Journal of Marine Science*, 69:1038-1044.

7. Sethi SA, Dalton M, Hilborn R (2012) Quantitative risk measures applied to Alaskan commercial fisheries. *Canadian Journal of Fisheries and Aquatic Sciences*, 69:487-498.

6. Sethi SA (2010) Risk management for fisheries. *Fish and Fisheries*, 11:341-365.

5. Sethi SA, Branch TA, Watson R (2010) Global fishery development patterns are driven by profit but not trophic level. *PNAS*, 107:12163-12167. ***Faculty of 1000 Biology Selection****.*

4. Sethi SA, Hilborn R (2008) Interactions between poaching and management policy affect marine reserves as conservation tools. *Biological Conservation*, 141:506-516.

3. Doyle MW, Stanley EH, Orr CH, Selle AR, **Sethi SA**, Harbor JM (2005) Stream ecosystem response to small dam removal: lessons from the Heartland. *Geomorphology*, 71:227-244

2. Sethi SA, Selle AR, Doyle MW, Stanley EH, Kitchel HE (2004) Response of Unionid mussels to a dam removal in Koshkonong Creek, USA. *Hydrobiologia*, 525:157-165

1. Veleva V, **Sethi SA** (2004) The electronics industry in a new regulatory climate: protecting the environment and shareholder value. *Corporate Environmental Strategy*, 11:207-224.

Cohen RE, …, **Sethi SA**, White S, Rice AN. Sounds of Atlantic Sturgeon spawning: first description and opportunities for riverine endangered species conservation with passive acoustic monitoring. In review.

Dietrich J, Rickard A, **Sethi SA**, Cuppett S, Sullivan P. Aquatic habitat response to small dam removal demonstrates aquatic habitat recovery in three years. In review.

Fitzpatrick KB, Connerton M, Yuillle M, **Sethi SA**. Comparative assessment of mass marking techniques for identifying hatchery-origin fish. In review.

Greenstreet L, Shi Q, Grimson M, Simon FW, **Sethi SA**, Gomes CP, Lodi A, Shmoys DB. Reducing income variability in natural resource portfolios via integer programming. In review.

Heilpern S, Simon F, **Sethi SA**, Fiorella K, Flecker AS, Gomes C, McIntyre PB. Conserving biodiversity safeguards nutritious and sustainable global fisheries. In review.

Koeberle AL, …, **Sethi SA**. How accurately does eDNA reflect the spatial distribution of pelagic fish? Field validation from a temperate lake. In review.

Koeberle AL, …, **Sethi SA**. Integrating acoustic telemetry and demographic modeling to inform fisheries restoration success: Cisco (*C. artedi*) reintroductions to Keuka Lake, NY. In review.

Nabeel I, Cabrera-Rivera LT, Delgado A, Maroko A, **Sethi SA**, Midya V, Chowdhury M, Branco BF, Kavouras I. Linking precipitation-driven flooding events to acute respiratory illness in New York city. In review.

Schuurman GW, …, **Sethi SA**, … Wilkening JL. Clarifying how the resist–accept–direct (RAD) framework is intended to support diverse resource-management planning processes. In review.

Zarri L, Kraft C, McIntyre P, …, **Sethi SA**, …, Therkildsen NO. Eradication efforts catalyze rapid evolution in an invasive predatory fish. In review.

Book chapters

1. Beever E, **Sethi SA**, Prange IS, DellaSalla DA (2020) Introduction: Defining and Interpreting Ecological Disturbances, pp. 3-37 *in* E. Beever (Ed.), Disturbance Ecology and Biological Diversity: Scale, Context, and Nature. CRC Press, New York.

Technical writing and popular press

24. Fitzpatrick KB, **Sethi SA**, (2023) Standard operating procedures for parentage-based tagging for Lake Ontario Chinook Salmon using microsatellite data. Technical Report submitted to the NY State Department of Environmental Conservation. Cornell University, Ithaca, NY.

23. Sweka J, Weidel B, … **Sethi SA**, … Donner K (2023) Developing Population Viability Analyses to inform Coregonine restoration. White paper from the U.S. – Canada joint working group on Coregonine Population Viability Analysis for the Council of Lakes, Great Lakes.

22. Baralon J, Marks D, Dietrich U, Hinojosa G, Mallin C, Stadelmann M, **Sethi SA**, Tobin, J. (2021) Conservation finance 2021: an unfolding opportunity. Coalition for Private Investment in Conservation, Cornell Atkinson Center for Sustainability, Ithaca NY.

21. Deutz A, Heal GM, Niu R, Swanson E, Townshend T, Zhu L, Delmar A, Meghji A, **Sethi SA**, Tobin-de la Puente J (2020) Financing nature: closing the global biodiversity financing gap. The Paulson Institute, The Nature Conservancy, and the Cornell Atkinson Center for Sustainability, 256pp. *This report has been featured at major policy forums including the UN Summit on Biodiversity and the Convention on Biological Diversity, where our biodiversity funding needs estimates are guiding country-level commitments to conservation support.*

20. Beatty WS, Lemons PR, **Sethi SA**, Everett J, Lewis CJ, Olsen JB, Garlich-Miller JL, Cook GM, Wenburg JK (2019) Estimating Pacific Walrus abundance and demographic rates from genetic mark-recapture. OCS Study, Bureau of Ocean and Energy Management, Anchorage, AK.

19. Joint AFS-TWS Ecosystem Transformation Synthesis Team. (2019) How to respond to changing ecosystems: resist, accept, or direct? AFS-TWS Ecosystem Transformation Synthesis Team, Final Workshop Newsletter, Seattle, WA.

18. Hollmén TE, Sztukowski LA, **Sethi SA** (2018) Long-term monitoring: synthesis and conceptual modeling - conceptual ecological modeling. Exxon Valdez Oil Spill Long-Term Monitoring Program (Gulf Watch Alaska) Final Report (Exxon Valdez Oil Spill Trustee Council Project 16120114-I), Exxon Valdez Oil Spill Trustee Council, Anchorage, Alaska.

17. Rose C, Harris BP, Zagorski S, Hammond C, **Sethi SA**, McEntire S. (2016) Assessment of the benthic impacts of raised groundgear for the Eastern Bering Sea pollock fishery. North Pacific Research Board Project 1319 Final Report, 60 pp.

16. U.S. Fish and Wildlife Service. (2016) Conservation Framework for Yukon River Chinook Salmon (*Oncorhynchus tshawytscha*). U.S. Fish and Wildlife Service Technical Report, Anchorage, AK, U.S.A., 112 pp.

15. Tanner T, **Sethi SA** (2015). Estimation of Pacific salmon distribution and abundance in the Matanuska river watershed, Southcentral Alaska, 2009. Anchorage: US Fish and Wildlife Service Data Series Report.

14. Maio C, Balazs M, Noordeloos J, **Sethi SA**, Harris BP (2015) Geospatial datasets applicable to an essential fish habitat non-fishing vulnerability assessment: Norton Sound, Alaska. Final Report to NOAA-NMFS Habitat Division.

13. Walsh P, Demma N, Barten N, Schindler D, Perry P, Seppi BE, Olsen J, **Sethi SA** (2015) The relationships of wolf and brown bear predation with moose population density and growth at Togiak National Wildlife Refuge and BLM Goodnews Block, Alaska. U.S. Fish and Wildlife Service Report 2014, Dillingham, Alaska, 24 pp.

12. Sethi SA, Knapp G, Reimer M, Riggs W (2014) A systematic approach to empirical characterization and analysis of fishing communities: measure, monitor, and manage. North Pacific Research Board Project 1214 Final Report, 69 pp.

11. Ray J, **Sethi SA**, Joyce JE, Eiler JH, Evans DM, Vulstek S (2014) Sockeye salmon distribution and habitat use in the Auke Lake watershed. Anchorage: US Fish and Wildlife Service Data Series Report, 2014-3.

10. U.S. Fish and Wildlife Service. (2014) Service staff highlights: interview with a Biometrician. Alaska Fisheries and Habitat News, Spring 2014 Issue.

9. Tanner T, **Sethi SA** (2013) Estimation of Chinook salmon escapement, distribution and run timing in the Togiak river watershed using radio telemetry, Togiak National Wildlife Refuge, Alaska, 2012. Anchorage: US Fish and Wildlife Service Data Series Report.

8. Gerken J, **Sethi SA** (2013) Juvenile Coho salmon migration and habitat use in Meadow Creek, southcentral Alaska 2011 Anchorage: US Fish and Wildlife Service Data Series Report, 2013-1.

7. Tanner T, **Sethi SA** (2012) Estimation of Chinook salmon escapement, distribution and run timing in the Togiak river watershed using radio telemetry and closed population mark recapture analysis, Togiak National Wildlife Refuge, Alaska, 2011. Anchorage: US Fish and Wildlife Service Data Series Report, 2012-9.

6. Benolkin E, **Sethi SA** (2012) Inventory, monitoring, and the efficacy of minnow traps in capturing juvenile coho salmon in the Knik River Basin, Southcentral Alaska, 2011. Anchorage: US Fish and Wildlife Service Data Series Report, 2012-12.

5. Tanner T, **Sethi SA** (2011) Estimation of Chinook salmon escapement, distribution and run timing in the Togiak river watershed using radio telemetry, Togiak National Wildlife Refuge, Alaska, 2010. Anchorage: US Fish and Wildlife Service Data Series Report, 2011-9.

4. Sethi SA, Dalton M (2010) An assessment of two strategies to manage risk in the Bering Sea snow crab and red king crab fisheries: rationalization and catch cooperatives. Seattle: Alaska Fisheries Science Center publication.

3. Sethi SA, Dalton M (2010) Description, simulation testing, and R code for quantitative risk measures for commercial fisheries: semideviation, conditional value at risk, and probability of ruin. Seattle: Alaska Fisheries Science Center publication.

2. Hamel O, **Sethi SA**, Wadsworth TF (2009) Status and future prospects for Lingcod in waters off Washington, Oregon, and California as assessed in 2009. In: *Pacific Fishery Management Council, 2009. Status of Pacific Coast Groundfish Fishery through 2009 and Recommendations for Accepted Biological Catches for 2009*.

1. Sethi SA (2004) Energy to rely on. In *The Citizen*, Portsmouth: Citizens Funds. Summer:3-4.

RESEARCH GRANTS

2024-2026	Rethinking hydropower to satisfy energy, climate, and biodiversity goals, $195k, Co-I with A. Flecker (PI, Cornell), S. Heilpern (Co-PI, Cornell), I. Miqueleiz (Co-PI, Cornell), P. McIntyre (Co-PI, Cornell), F. Pacheco (Co-PI, Cornell), R. Almeida (Co-I, UI Bloomington). Cornell Atkinson Center for Sustainability, Academic Venture Fund Grant.
2024-2025	Can invasive round goby successfully reproduce in estuarine and marine waters of NY?, $39k, PI with J. Watkins (Co-PI, Cornell), R. Dickie (Co-PI, Brooklyn College), K. Alvarez del Castillo (Co-I, Cornell). NY Water Resources Institute grant.
2024-2025	Scaling the potential to utilize seafood processing wastes for animal feeds, $5k, PI. PSC-CUNY Research Award Program Cycle 55 grant.
2024-2026	Navigating Lake Ontario coregonine restoration: Analysis of contemporary and future food web structures, $240k, Co-PI with L. Rudstam (PI, Cornell), J. Watkins (Co-PI, Cornell), T. Stewart (Co-I, independent), and A. Koeberle (Co-I, Cornell). NY Sea Grant Biennial grant.
2024-2025	Addressing Monkfish management needs by developing a standardized Catch Per Unit Effort (CPUE) index, $140k, Co-PI with E. Hasbrouck (PI, Cornell Cooperative Extension), Scott Curatolo-Wagemann (Co-PI, CCE), Pat Sullivan (Co-PI, Cornell), National Marine Fisheries Service Monkfish Research Set Aside grant.
2023-2025	Improved estimates of bottom contact and recovery from commercial fishing (RESONANCE), £400k, Co-PI with C. McGonigle (PI, Ulster University), B. Harris (APU), United Kingdom Fisheries Industry Science Partnership grant.
2022-2025	Round goby invasion ecology in the Hudson River ecosystem, $300k, PI, NY State Division of Marine Resources grant.
2022-2027	New York fisheries dependent data: Vessel Trip Report analysis and management, $1.01M, PI with Pat Sullivan (PI, Cornell) and M. Albino (Co-PI, NY DEC), NY State Division of Marine Resources multi-year contract.

2022-2024	Leveraging conservation technology to improve protected species management efforts and enhance ecosystem services within the Hudson River National Estuarine Research Reserve, $400k, Co-PI with A Rice (PI, Cornell), P Baker (US Military Academy), C Bowser (NYDEC), M Niemiesto (NYDEC), A Flecker (Cornell), National Estuarine Research Reserve grant.
2022-2025	Indexing and identifying drivers of Great Lakes coregonine recruitment: a cross-basin, cross-species analysis, $230k, Co-PI with A Honsey (PI, USGS), T Brown (PI, Cornell), L Rudstam (Cornell), et al. Great Lakes Fisheries Commission grant.
2022	Parentage based tagging for Lake Ontario salmon management, $70k, PI with K Fitzpatrick (Cornell), Nina Therkildsen (Cornell). NY Department of Environmental Conservation grant.
2022	Building collaborations for understanding the environmental footprint of expanding Amazonian aquaculture, $10k, Co-PI with A Flecker (PI, Cornell), K Fiorella (Cornell), P McIntyre (Cornell), S Heilpern (Cornell), R Almeida (UT-RFV). Einaudi Center seed grant.
2022-2023	Establishing a scientific stock assessment and fisheries management program in the Philippines as a basis for scaling science-based fishery management in tropical developing countries, $95k, Co-PI with A Rice (PI, Cornell), Rod Fujita (EDF), and Joe Warren (Stonybrook). Environmental Defense Fund-Cornell Atkinson Center for Sustainability, Innovation for Impact Fund.
2022-2024	Balancing environmental and nutritional tradeoffs of expanding Amazonian aquaculture, $175k, Co-PI with Alex Flecker (PI, Cornell), Katie Fiorella (Cornell), Carla Gomes (Cornell), and Xiangtao Xu (Cornell). Cornell Atkinson Center for Sustainability, Academic Venture Fund.
2021-2026	Hudson River Estuary Program, $7.4M over 5 years, shared PI with Shorna Allred (Cornell, co lead-PI), NY Department of Environmental Conservation grant to support the Hudson River Action Agenda Plan; Sethi leads the Fisheries Group (5 staff, $5.2M), Allred the Land Use & Conservation Group (3 staff, $2.2M).
2021-2025	Improving the accuracy of USGS's acoustic fish abundance estimates using high endurance autonomous vehicles, $396k, Co-PI, with L Rudstam (PI, Cornell), J Watkins (Cornell), P Esselman (USGS), D Warner (USGS), Great Lakes Restoration Initiative from the USGS Great Lakes Science Center.
2020-2024	Returning native fish communities to inland ecosystems of the Northeast: Coregonine restoration in Keuka Lake, $228k, PI, with J McKenna (USGS), W Pearsall (NY DEC), M Bartron (USFWS), NY State Department of Environmental Conservation grant.
2020-2022	Strategies for climate-ready fishing communities: optimal fishing portfolios for changing ocean ecosystems, $200k, PI, with A Muir (TNC), A Flecker (Cornell), C Gomes (Cornell), J Tobin (Cornell), R Bell (TNC), K Kauer (TNC), B Harris (APU). TNC-Atkinson Center for a Sustainable Future grant.
2020-2021	Integration of molecular methods into diet analyses to advance understanding of juvenile Chinook salmon predation mortality in the Delta, $215k, Co-PI, with M Henderson (PI, HSU), W Larson (UW-SP), R Perry (USGS), N Fangue (UC-Davis), F Feyrer (USGS). SoCal Metro Water District grant.
2019-2023	Using engineered DNA to assess spatial and temporal variation in eDNA as a measure of biodiversity spatiotemporal variability, $1.74M, Co-PI with J Andres (PI, Cornell), D Lodge (Cornell), T Cowan (Cornell), D Luo (Cornell), T Walters (Cornell). Dept. of Defense SERDP grant.
2019-2023	Modeling fishing activity and fishing gear modification dynamics for benthic ecosystems: development and testing for Alaskan waters, $180k, PI, with B Harris (APU), TS Smeltz (Cornell). Groundfish Forum grant.

2019-2020	Monitoring against runaway wild production: Genetics provides a cost efficient and reliable tool for identifying hatchery versus wild Chinook Salmon in the Great Lakes, $15,000, PI with N Therkildsen (Cornell), K Fitzpatrick (Cornell). NY Sea Grant grant.
2019	Development of genetic markers for Lake Ontario Chinook Salmon: parentage assignment for hatchery and naturalized fish. $8,000, PI. U.S. Geological Survey Cooperative Research Units grant.
2018-2021	Quantifying Coregonid habitat use across space and time to inform assessment and restoration. $253,485, PI with B Weidel (USGS), L Rudstam (Cornell). Great Lakes Restoration Initiative funding.
2018-2019	Coping with extreme climate: ecosystem service modeling for aquatic conservation planning in Africa. $198,000, Co-PI with D Rypkema (PI, postdoc), P Sullivan (Cornell), T Baker (Nature Conservancy). NatureNet postdoc fellows program, Nature Conservancy-Cornell Atkinson Center.
2018-2019	Are invasive round goby a new contaminant vector in Northeastern U.S. inland waterbodies? $9,750, PI, with R Jackson (Cornell), L Rudstam (Cornell), J Lepak (Sea Grant), K. Fiorella (Cornell). NY Water Resources Institute grant.
2018	Acoustic technology to assess survival of hatchery-released juvenile Coregonines. $10,000, PI. U.S. Geological Survey Cooperative Research Units grant.
2017-2018	New business models for sustainable fisheries finance $60,369, Co-PI with J Tobin (Cornell), T Fitzgerald (Environmental Defense Fund). Atkinson Center grant.
2017-2018	Testing the feasibility of acoustic sensors to estimate sardine biomass to facilitate science-based fishery management in the Philippines $85,173, Co-PI with A Rice (Cornell), R Fujita (Environmental Defense Fund). Atkinson Center grant.
2017-2022	Lake Ontario salmonid management risk assessment: refinement of predator-prey models. $258,000, PI with S Lapan (NYDEC). NY Dept. of Environmental Conservation grant.
2017-2019	Managing for long term sustainability of seafood production from bottom-tendered wild capture fisheries: evaluating tradeoffs between spatial closures versus gear modification. $123,000, PI with B Harris (APU), P Sullivan (Cornell), M Gomez (Cornell). Atkinson Center for a Sustainable Future competitive grant.
2016-2019	Development of descriptive indices for the spawning and nursery habitat for great lakes lake herring and their application to areas targeted for restoration. $199,000, PI with B Lantry (USGS), L Rudstam (Cornell). Great Lakes Restoration Initiative funding.
2016-2018	Determining how Elodea spp. impact fish performance in Subarctic food webs. $48,000, Co-I with M Carey (USGS) and 7 others. USGS-NPS Natural Resources Preservation Project grant.
2016-2017	How many cooks in the kitchen? Evaluating the potential of DNA mixture models to infer counts from fish and wildlife genetic samples. $7,400, PI, with W Larson (UW-SP), M Henderson (HSU), D Isermann (UW-SP). U.S. Geological Survey Cooperative Research Units grant.
2014-2016	Koyukuk river Chum salmon distribution and abundance estimation with telemetry and mark recapture sampling. $361,000, Co-PI with F Harris, A Martin (USFWS), B McKenna (Tanana Chiefs). U.S. Office of Subsistence Management Fisheries Resource Monitoring research grant.
2014	Analysis of aquatic invasive species in Alaska: Elodea canadensis. $15,000, PI with M. Carey (USGS), C Rich (USFWS), S Larsen (APU). U.S. Fish and Wildlife Service research grant (national competitive pool).

2014	Genetics based mark recapture of Pacific Walrus. $100,000, Co-PI with P Lemons (USFWS) and 7 others (ADFG, USGS). National Fish and Wildlife Fund grant.
2014	Landscape-scale analysis of the relationship between juvenile Chinook size and growth and stream temperature in western Alaska. $10,300, PI with B Harris (APU). Western Alaska Landscape Conservation Cooperative research grant.
2013-2015	Assessment of a genetics based capture-mark-recapture approach for estimation of abundance and demographic rates of Pacific walruses. $195,000, Co-PI with P Lemons (USFWS) and 7 others (ADFG, USGS). North Pacific Research Board grant.
2013-2015	Review current and potential fishing effects models for North Pacific EFH assessment. $120,000, Co-PI with B Harris (APU). Pacific States Marine Fisheries Commission project grant.
2013-2015	Conceptual ecological models to synthesize, organize, and prioritize research. $14,000, Co-PI with T Hollmen (UAF). AK Sea Life Center grant.
2013	Validating community walkability metrics: return on streetscape investments, neighborhood socioeconomic resilience. $15,000, Co-PI with B Riggs (CalPoly). CalPoly Extramural Funding Initiative grant.
2012-2013	A systematic approach to empirical characterization and analysis of fishing communities: measure, monitor, and manage. $57,000, PI with G Knapp (UAA-ISER). North Pacific Research Board grant.
2011-2013	Optimal culvert mitigation analysis for juvenile salmon habitat in the Mat-Su valley, AK. $200,000, Co-PI with J Gerken (USFWS). Federal USFWS funds + state of AK matching.
2010	Risk metrics for commercial fisheries. $35,000, PI with M Dalton (NMFS), NMFS Alaska Fisheries Science Center grant.
2009	Distributed Graduate Seminar Travel Grant, $2,500, National Center for Ecological Analysis and Synthesis.
2007-2010	Graduate Research Fellowship, $159,000, National Science Foundation.
2007	Foreign Language Area Study Fellowship (France), $7,500, National Science Foundation.

RECENT PRESENTATIONS

Dec. 2024	"Aligning conservation and public health through nutritious, low mercury and resilient fisheries," S. Heilpern et al. (**SA Sethi 6th)**, American Geophysical Union annual meeting, Washington D.C.
Dec. 2024	"Siting aquaculture on degraded lands sustains win-win outcomes for food and conservation," F. Pacheco et al. (**SA Sethi 3rd)**, American Geophysical Union annual meeting, Washington D.C.
Dec. 2024	"Navigating tradeoffs in hydropower development, decarbonization, and biodiversity through carbon offset markets," S. Heilpern et al. (**SA Sethi 7th)**, American Geophysical Union annual meeting, Washington D.C.
Dec. 2024	"Mitigating generation shortfalls and adverse socio-environmental impacts of hydropower through climate-smart planning," F. Pacheco et al. (**SA Sethi 12th)**, American Geophysical Union annual meeting, Washington D.C.
Oct. 2024	"Thunderfish: description and occurrence of low-frequency sounds associated with spawning Atlantic Sturgeon in the Hudson River," R. Cohen et al. (**SA Sethi 10th)**, North American Sturgeon and Paddlefish Society annual meeting, Mobile, Alabama.

Oct. 2024 — “Salinity tolerance of Round Goby: informing invasion potential in the Hudson River Estuary,” K. Alvarez del Castillo et al. (**SA Sethi 2nd)**, Hudson River Symposium.

Oct. 2024 — “Sounding the river: Applications of bioacoustics for ecosystem monitoring in the Hudson River,” R. Cohen et al. (**SA Sethi 10th)**, Hudson River Symposium.

Sept. 2024 — “Reconstructing long-term *Coregonine* recruitment dynamics across the Laurentian Great Lakes,” T. Brown et al. (**SA Sethi 3rd**), American Fisheries Society Annual Meeting, Honolulu, HI.

Sept. 2024 — “Relevant and impactful spatial information in stock assessments for adapting fisheries management,” J. Morano et al. (**SA Sethi 21st)**, American Fisheries Society Annual Meeting, Honolulu, HI.

June 2024 — “Evaluating drivers of diel vertical migration in fish and mysis with surface drones in Lake Superior,” T. Evans et al. (**SA Sethi 4th)**, Association for the Sciences of Limnology and Oceanography Annual Meeting, Madison, WI.

June 2024 — “Evaluating drivers of diel vertical migration in fish and mysis with surface drones in Lake Superior,” T. Evans et al. (**SA Sethi 4th)**, Association for the Sciences of Limnology and Oceanography Annual Meeting, Madison, WI.

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June 2024 — “Evaluating drivers of diel vertical migration in fish and mysis with surface drones in Lake Superior,” T. Evans et al. (**SA Sethi 4th)**, Association for the Sciences of Limnology and Oceanography Annual Meeting, Madison, WI.

June 2024 — “Using autonomous vehicles to assess potential bias of fish surveys due to acoustic dead zones in the great lakes,” H. Blair et al. (**SA Sethi 6th)**, Association for the Sciences of Limnology and Oceanography Annual Meeting, Madison, WI.

May 2024 — “Salinity tolerance of Round Goby in coastal North America,” K. Alvarez del Castillo et al. (**SA Sethi 6th)**, International Conference on Aquatic Invasive Species, Halifax, Canada.

May 2024 — “Quiet uncrewed surface vessels assess fish avoidance to motorized survey ships with varying noise levels in the Great Lakes,” T. Evans et al. (**SA Sethi 3rd)**, American Acoustical Society annual meeting, Ottawa.

May 2024 — “Acoustic telemetry and eDNA to evaluate cisco restoration in an inland lake,” A. Koeberle et al. (**SA Sethi 2nd)**, International Association for Great Lakes Research, Windsor, Canada.

May 2024 — “Reconstructing half a century of lake whitefish and cisco recruitment dynamics across the Great Lakes,” T. Brown et al. (**SA Sethi 2nd)**, International Association for Great Lakes Research, Windsor, Canada.

May 2024 — “Assessing fish avoidance to motorized acoustic survey vessels using quiet uncrewed surface vessels in Lake Erie,” T. Evans et al. (**SA Sethi 4th)**, International Association for Great Lakes Research, Windsor, Canada.

Mar 2024 — “Salinity tolerance of Round Goby: informing expansion potential in the Hudson River Estuary,” K. Alvarez del Castillo et al. (**SA Sethi 6th)**, Mohawk Watershed Symposium, Schenectady NY.

Feb 2024 — “Tackling grand challenges in fisheries sustainability through innovation,” **SA Sethi**, Invited Seminar, U Mass Dartmouth, New Bedford, MA.

Feb 2024 — “Hydroacoustic estimates of *Mysis diluviana* abundance and distribution in Lake Michigan and Lake Huron using autonomous surface vessels,” K. Nasworthy et al. (**SA Sethi 4th)**, Ocean Science Meeting, New Orleans LA.

Feb 2024	"Hiding in plain sight: quantifying near-surface fish distributions using long range autonomous underwater vehicles in the Great Lakes," H. Blair et al. (**SA Sethi 4th)**, Ocean Science Meeting, New Orleans LA.
Feb 2024	"Reconstructing half a century of lake whitefish and cisco recruitment dynamics across the Great Lakes," T. Brown et al. (**SA Sethi 3rd)**, NY Chapter American Fisheries Society Annual Meeting, Cooperstown NY. ***Best Student Oral Presentation*** *winner (tied co-winner with A. Koeberle)!*
Feb 2024	"Navigating native cisco (*Coregonus artedi*) restoration in Keuka Lake, New York," A. Koeberle et al. (**SA Sethi 2nd)**, NY Chapter American Fisheries Society Annual Meeting, Cooperstown NY. ***Best Student Oral Presentation*** *winner (tied co-winner with T. Brown)!*
Feb 2024	"Effects of Salinity on Survival and Reproduction of Round Goby," K. Alvarez del Castillo et al. (**SA Sethi 4th)**, NY Chapter American Fisheries Society Annual Meeting, Cooperstown NY.
Feb 2024	"Characterization of low-frequency sounds associated with an Atlantic sturgeon spawning aggregation in the Hudson River," R. Cohen et al. (**SA Sethi 5th)**, NY Chapter American Fisheries Society Annual Meeting, Cooperstown NY.
Feb 2024	"Salinity tolerance of Round Goby: informing expansion potential in the Hudson River Estuary," K. Alvarez del Castillo et al. (**SA Sethi 5th)**, NY Chapter American Fisheries Society Annual Meeting, Cooperstown NY.
Jan 2024	"Acoustic telemetry and eDNA to evaluate Cisco restoration in Keuka Lake," A. Koeberle et al. (**SA Sethi 2nd)**, Finger Lakes Research Conference, Geneva NY.
Dec 2023	"Biodiversity for nutritious, sustainable, and resilient fisheries," S. Heilpern et al. (**SA Sethi 4th)**, AGU 2023, San Francisco.
Dec 2023	"Leveraging legacy hydropower for grid stability and biodiversity preservation in Colombia's transition to Net Zero," H. Angarita et al. (**SA Sethi 5th)**, AGU 2023, San Francisco.
Dec 2023	"Unaccounted land and carbon footprint of aquaculture in the Amazon," F. Pacheco et al. (**SA Sethi 14th)**, AGU 2023, San Francisco.
Dec 2023	"Strategic dam-planning for climate change mitigation and biodiversity conservation in the Magdalena River basin," S. Heilpern et al. (**SA Sethi 11th)**, AGU 2023, San Francisco.
Dec 2023	"Strategic hydropower planning in a warming world: strategies for the Magdalena River basin, Colombia," F. Pacheco et al. (**SA Sethi 12th)**, AGU 2023, San Francisco.
Nov 2023	"Salinity tolerance of Round Goby in the Hudson River Estuary," K. Alvarez del Castillo et al. (**SA Sethi 2nd)**, NYNJ Harbor Hudson Estuary Conference, Jersey City.
Sep 2023	"Larval cisco and lake whitefish exhibit high distributional overlap within Lake Ontario nursery areas," T. Brown et al. (**SA Sethi 8th)**, 15th International Symposium on the Biology and Management of Coregonid Fishes, Evian-les-Bains, France.
Sep 2023	"Salinity tolerance of Round Goby: informing expansion potential in the Hudson River Estuary," K. Alvarez del Castillo et al. (**SA Sethi 2nd)**, NY Invasive Species Expo, Saratoga Springs NY.
Aug 2023	"Bayesian estimation of spatially varying mortality risk using tagged animal data," A. Poulton et al. (**SA Sethi 3rd)**, American Fisheries Society, National meeting, Grand Rapids, MI.
May 2023	"Innovation across scales to advance natural resource management," **SA Sethi**, USDA Agricultural Research Service, invited seminar.

May 2023	"Assessing fish avoidance to motorized acoustic survey vessels using quiet autonomous Saildrones in the Great Lakes," Tom Evans et al. (**SA Sethi** 3rd**)**, International Association for Great Lakes Research annual meeting, Toronto.
May 2023	"Abundance of *Mysis diluviana* in Lakes Michigan and Huron assessed using acoustic data from autonomous vessels," Kayden Nasworthy et al. (**SA Sethi** 6th**)**, International Association for Great Lakes Research annual meeting, Toronto.
May 2023	"Insights into scattering layer identity using dual frequency acoustics in the Great Lakes," Hannah Blair et al. (**SA Sethi** 7th**)**, International Association for Great Lakes Research annual meeting, Toronto.
May 2023	"Identifying and ranking important drivers of lake whitefish and cisco recruitment," Taylor Brown et al. (**SA Sethi** 3rd**)**, International Association for Great Lakes Research annual meeting, Toronto.
Mar 2023	"Advancing fisheries sustainability through innovation," **SA Sethi**, Brooklyn College, invited seminar.
Mar 2023	"Tackling grand challenges in fisheries sustainability with innovation," **SA Sethi**, Department of Natural Resources and the Environment seminar series, Cornell, invited seminar.
Feb 2023	"Whole-lake acoustic telemetry and eDNA to evaluate native Cisco (*Coregonus artedi*) restoration in Keuka Lake," Alex Koeberle et al. (**SA Sethi** 2nd), NY Chapter American Fisheries Society annual conference.
Feb 2023	"Salinity tolerance of Round Goby: informing expansion potential in the Hudson River Estuary," Kelsey Alvarez del Castillo et al. (**SA Sethi** 2nd), NY Chapter American Fisheries Society annual conference.
Feb 2023	"Soundscapes of the Hudson River Estuary: Science Collaboration for bioacoustics research, management, and education," Aaron Rice et al. (**SA Sethi** 4th), NY Chapter American Fisheries Society annual conference.
Feb 2023	"Reconstructing abundance indices for Atlantic Sturgeon in the Hudson River using hierarchical ecological models," Dan Stitch et al. (**SA Sethi** 6th), NY Chapter American Fisheries Society annual conference.
Dec 2022	"Basin-wide planning of Amazon hydropower can reduce adverse impacts on ecosystem services," A Flecker et al. (**SA Sethi** 7th), AGU annual conference.
Nov 2022	"Salinity tolerance of Round Goby: informing expansion potential in the Hudson River Estuary," K Alvarez del Castillo et al. (**SA Sethi** 2nd), Hudson River Foundation NY-NJ Harbor & Estuary Program annual conference.
Oct 2022	"Advancing fisheries sustainability through innovation," **SA Sethi**, Invited seminar, U Mass-Amherst, Eco Seminar Series.
Oct 2022	"The Pacific Walrus population assessment," **SA Sethi**, Invited seminar, American Fisheries Society Cornell Student Chapter.
Oct 2022	"Socioecological thresholds drive potential for long-term ecosystem transformation by hippos in Colombia," **SA Sethi**, Invited seminar, American Fisheries Society Cornell Student Chapter.
Sep 2022	"Saildrone acoustics surveys to provide insight into vessel avoidance by fishes," T Evans et al. (**SA Sethi** 3rd), Cornell Biological Field Station, Invited seminar.
Sep 2022	"Genetic variation in environmental samples as a metric of species' abundance," K Andres et al. (**SA Sethi** 2nd), Second National Workshop on Marine eDNA, Costa Mesa, CA.

Sep 2022	"Cisco restoration in Keuka lake," A Koeberle et al. (**SA Sethi** 2nd), Cornell Limnology Lab, invited presentation.
Aug 2022	"Optimal dynamic spatial closures can improve fishery yield and reduce fishing-induced habitat damage," A Poulton et al. (**SA Sethi** 2nd), Ecological Society of America annual meeting, Montreal.
Aug 2022	"Estimating Pacific walrus abundance and survival with multievent mark-recapture models," W Beatty et al. (**SA Sethi** 7th), Society for Marine Mammal Science annual meeting, Palm Beach, FL.
June 2022	"Working at the margin of social, ecological, and quantitative sciences to advance fisheries management," SA Sethi, Invited seminar, University of Alaska-Anchorage.
June 2022	"Resist-Accept-Direct (RAD) adaptive management," A. Lynch et al. (**SA Sethi** 14th), Invited seminar, National Conservation Training Center, U.S. Department of Interior.
May 2022	"Saildrone acoustics surveys provide insight into vessel avoidance by fishes," T.M. Evans et al. (**SA Sethi** 4th), Joint Aquatic Science Meeting (Am. Fish. Soc. and 8 other organizations) annual meeting, Grand Rapids, MI.
May 2022	"Reducing adverse impacts of amazon hydropower expansion on biodiversity and ecosystem services," A. Flecker et al. (**SA Sethi** 8th), Joint Aquatic Science Meeting (Am. Fish. Soc. and 8 other organizations) annual meeting, Grand Rapids, MI.
May 2022	"Parentage-Based Tagging to support the conservation and management of inland fish populations," K. Fitzpatrick et al. (**SA Sethi** 5th), Joint Aquatic Science Meeting (Am. Fish. Soc. and 8 other organizations) annual meeting, Grand Rapids, MI.
May 2022	"Early successes of a multi-agency study to quantify and correct for biases in acoustic fish abundance estimates in the Great Lakes," P. Esselman et al. (**SA Sethi** 8th), Joint Aquatic Science Meeting (Am. Fish. Soc. and 8 other organizations) annual meeting, Grand Rapids, MI.
May 2022	"Acoustic telemetry and edna to evaluate a native Cisco (Coregonus artedi) reintroduction in the Finger Lakes," A. Koeberle et al. (**SA Sethi** 8th), Joint Aquatic Science Meeting (Am. Fish. Soc. and 8 other organizations) annual meeting, Grand Rapids, MI.
May 2022	"Exploring the ecological and evolutionary impacts of sustained invasive species suppression," L. Zarri et al. (**SA Sethi** 5th), Joint Aquatic Science Meeting (Am. Fish. Soc. and 8 other organizations) annual meeting, Grand Rapids, MI.
May 2022	"Distributions of sympatric Cisco and Lake Whitefish larvae in Lake Ontario embayments," T. Brown et al. (**SA Sethi** 2nd), Joint Aquatic Science Meeting (Am. Fish. Soc. and 8 other organizations) annual meeting, Grand Rapids, MI.
Apr 2022	"Marine fisheries management: goals, strategies, and case studies," **SA Sethi**, Department of Natural Resources and the Environment, NTRES 3110 Fish Ecology, Conservation, and Management Cornell University, invited seminar.
Mar 2022	"Evaluating survival of juvenile Cisco (*Coregonus artedi*) re-introduced to Keuka Lake through acoustic telemetry," A. Koeberle et al. (**SA Sethi** 2nd), American Fisheries Society NY Chapter annual meeting.
Mar 2022	"Status of round goby in the Mohawk and Hudson Rivers,"," S. George et al. (**SA Sethi** 6th), American Fisheries Society NY Chapter annual meeting.
Mar 2022	"Acoustic telemetry to evaluate survival of post-stocked juvenile Cisco to Keuka Lake, New York,"," A. Koeberle et al. (**SA Sethi** 2nd), Great Lakes Acoustic Telemetry Observing System annual meeting, invited seminar.
Feb 2022	"Acoustic telemetry to evaluate native Cisco reintroductions to Keuka Lake," A. Koeberle et al. (**SA Sethi** 2nd), Cornell Biological Field Station, invited seminar.

INSTRUCTION

Courses

2024, 2023	EESC 7771, "Spatial statistics," Brooklyn College
2024	EESC 2600, "Statistics and data analysis in earth and environmental sciences," Brooklyn College
2024, 2025	EESC 7161, "Field course," Topics: seafood sustainability science, Brooklyn College
2021, 2018, 2016	NTRES 6140, "Conservation controversies," Cornell University
2020	NTRES 6940, "Bioenergetics modeling: theory and applications", Cornell University
2017	NTRES 6940, "Advanced fisheries research methods," Cornell University
2015	MATH220, "Introductory statistics," directed graduate study, Alaska Pacific University

Seminars, workshops, co-teaching

2017	NTRES 4110/6110, "Quantitative ecology & management of fishery resources," Cornell University.
2013	"Strategic planning for Chinook salmon management and research: concept mapping + analytic hierarchy process," US Fish & Wildlife Service Kenai Field Office, Kenai, AK
2023, 2016, 2012	"Seminar on effective data visualization," Alaska Pacific University, Anchorage, AK
2011	"Methods in data exploration," Alaska Pacific University, Anchorage, AK.
2011	"Practical applications of AIC model selection and model averaging," Training workshop, US Fish and Wildlife Service, Anchorage, AK
2011	"Dealing with emigration in mark recapture studies," Training workshop, US Fish and Wildlife Service, Anchorage, AK.

MENTORSHIP

Major professor

R. Dickie (M.S., Brooklyn College, ongoing)
K. Alvarez del Castillo (M.S., Cornell, ongoing)
J. Best (M.S., Cornell, ongoing)
T. Brown (Ph.D., Cornell, ongoing; M.S., Cornell, 2020)
A. Koeberle (Ph.D., Cornell, ongoing)
S. Israt (M.A., Brooklyn College, 2024)
T. Scott Smeltz (Ph.D., Cornell, 2023)
K. Fitzpatrick (Ph.D., Cornell, 2023)
M. Paufve (M.S., Cornell, 2019)
J. Hagan (M.S., Alaska Pacific University, 2017)
J. Ashline (M.S., co-chair, APU 2016)
S. Larsen (M.S., co-chair, APU 2015)

Student committee memberships:

M. Airey (Ph.D., Cornell, ongoing)
C. Bowser (Ph.D., Cornell, ongoing)
J. Morano (Ph.D., Cornell, ongoing)
A. Poulton (Ph.D., Cornell, 2024)
L. Zarri (Ph.D., Cornell, 2024)
S. Figary (Ph.D., Cornell, 2023)
M. Moriarty (Ph.D., Ulster University, 2021)
T. Blackmon (M.S., APU, 2020)
E. Duskey (Ph.D., Cornell 2020)
S. Heilpern (Ph.D., Columbia University, 2020)
L. Junge (M.S., APU, 2020)
D. Kaziev (M.S. Cornell, 2020)
B. Marcy-Quay (Ph.D., Cornell, 2020)
T. Anderson (M.S., Cornell, 2019)
E. George (Ph.D., Cornell, 2019)
D. Kowalik (M.S., Cornell 2018)
J. Boersma (M.S., WVU 2016)
A. Palmer (M.S., APU 2016)
C. Pasi (M.S., APU 2015)

Postdocs and fellows

H. Blair (Cornell, ongoing)
T. Evans (Cornell, ongoing)
F. Simon (Cornell, 2021-2022)
K. Hychka (Cornell, NY WRI, ongoing)
D. Rypkema (NatureNet Fellow, 2018-2020)
M. Moriarty (Ulster University, Fulbright Fellow at Cornell, 2018-2021)
L. Sztukowski (co-advised w/ T. Hollmen, UAF, 2015-2016)

PROFESSIONAL SERVICE

Advisory and technical committees

2024-present	Vice Chair, Science Panel for the North Pacific Research Board
2024-present	Advisory Panel member for the Brooklyn College Urban Ecology and Environment NSF REU
2023-present	NY State Representative to the Committee on Economics and Social Science, Atlantic States Marine Fisheries Commission
2023-present	Aquaculture Program Workgroup Team member, NY Sea Grant
2019-present	Science Panel member for the North Pacific Research Board
2019-present	Coalition for Private Investment in Conservation Research Working Group member
2019-present	Conservation Finance Working Group, Cornell University
2016-present	Lake Ontario Technical Committee
2020-2023	Council of Lakes, U.S. – Canada joint working group on Coregonine Population Viability Analysis
2018-2023	American Fisheries Society – Wildlife Society Synthesis Team on Ecosystem Transformation
2021	Technical Advisory Group, Coalition for Private Investment Conservation 'State of Conservation Finance' survey
2021	Technical Review Panel member, Maine Sea Grant
2019-2020	Technical Advisory Group TNC-Paulson Institute Synthesis Team on CBD for COP-15
2020	Cornell Initiative for Digital Agriculture, Annual Hackathon Faculty Mentor
2015	Expert panel member for the Aleutian Bering Sea Islands Landscape Conservation Cooperative climate vulnerability assessment
2013-2015	Scientific advisory committee for Sitka Conservation Society and Sitka Sound Science Center SALMON project

Editorial duties

2013-present	Associate Editor for Journal of Fish and Wildlife Management

Journal reviewer for:

American Naturalist
Biological Conservation
Canadian Journal of Fisheries & Aquatic Sciences
Conservation Letters
Ecological Modelling
Ecosystems
Environmental Science & Technology
Fisheries Management & Ecology
Fisheries Research
Freshwater Science
Frontiers in Ecology & the Environment
Human Dimensions of Wildlife
ICES Journal of Marine Science
Journal of Environmental Management
Journal of Fish & Wildlife Management
Journal of Great Lakes Research
Natural Resource Modeling
Nature Sustainability
North American Journal of Fisheries Management
PLoS ONE
Proceedings of the Royal Society B
Reviews in Fish Biology and Fisheries
Science
Scientific Reports
Transactions of the American Fisheries Society

COMPUTER SKILLS

Programming languages and statistical environments: R, WinBUGS/JAGS, VBA, and Matlab.

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