

PERMANENT
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Suresh Andrew Sethi

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EDUCATION

- 2011 **Ph.D. Fisheries Science, University of Washington-Seattle**
Dissertation: Risk management for fisheries, Adviser: Dr. Ray Hilborn
- 2007 **M.S. Fisheries Science, University of Washington-Seattle**
Thesis: Marine reserves under poaching, Adviser: Dr. Loveday Conquest
- 2001 **B.S. Zoology, University of Wisconsin-Madison**

AWARDS AND HONORS

- 2016-2021 Faculty Fellow, Atkinson Center for a Sustainable Future
- 2016-2020 Honorary Fellow, Ulster University
- 2016 Nominated for U.S. Fish and Wildlife Service Rachel Carson Science Award for Salmon research
- 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
- 2014 Nominated for U.S. Fish and Wildlife Service Rachel Carson Science Award for Salmon research
- 2014 Nominated for 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

WORK EXPERIENCE

- Feb. 2016 - present **Assistant Professor and Assistant Unit Leader**
Department of Natural Resources, Cornell University, Ithaca, NY
U.S. Geological Survey NY Cooperative Fish and Wildlife Research Unit
As Cooperative Research Unit professor at Cornell, I conduct applied fisheries and aquatic natural resource management science working with State, Federal, non-governmental, and academic partners. Duties include primary research, university teaching, student mentorship, technical assistance with Cooperative Unit cooperators, and professional service. Research topics focus on quantitative methods for natural resource management and include: freshwater and marine fish population assessment and management, aquatic habitat conservation, submerged aquatic invasive plant management, statistical genetics, and risk assessment and risk management for fishery and aquatic systems, inter alia.
- March 2014 - present **Adjunct Assistant Professor**
Alaska Pacific University, Environmental Sciences, Anchorage, AK
Member of the Fisheries, Aquatic Science & Technology Lab (alaskafastlab.org). Conduct research into fisheries science and natural resource management science and mentor Masters graduate students. Research topics include: salmonid fisheries ecology, commercial fisheries gear conservation and habitat impacts, and methods to monitor socioecological community dynamics. Competitive grants include: Western Alaska Landscape Conservation Cooperative, Alaska Sea Life Center, Cal Poly-San Luis Obispo, Pacific States Marine Fisheries Commission.
- Jan. 2011 – Feb. 2016 **Regional Biometrician, GS-13**
U.S. Fish and Wildlife Service, Anchorage, AK
Lead biometrician for the Fisheries and Ecological services division, responsible for ecosystem, fisheries and wildlife related research throughout the state of Alaska. Duties include:
 - Project design and management: Provide statistical analysis and design research projects for a team of 20+ professional biologists across four field stations and the AK Service regional office.

- Original research: Conduct original research on systems ranging from salmon ecology, marine mammal ecology, commercial, sport, and subsistence fisheries management, statistical genetics, and conservation planning. Collaborations include government and academic partners with funding from competitive grants and government sources.
- Communication and professional service: Publish research, provide statistical training to Service staff, and mentor graduate students through committee membership and internships.
- Supervision: Supervision of biometrics staff, field technicians, student interns, and volunteers.

Aug. 2005-Dec. 2010

Research associate

University of Washington School of Aquatic and Fishery Sciences, Seattle, WA

Design, coordinate, and carry out original research towards completion of graduate degrees in fisheries science. Research subjects included global meta analyses on commercial fishing development, marine reserve spatial management, and risk assessment and risk management in commercial fisheries. Research efforts were supported through a mix of competitive (e.g. NSF graduate research fellowship) and merit-based grants (e.g. ARCS fellow). Results were communicated in peer review journals and at national professional society meetings and working groups.

Mar. 2009-June 2009

Stock Assessment Analyst

National Marine Fisheries Service, Seattle, WA

Conducted statistical analysis of population data including multivariate analysis of stock structure and estimation of ageing error. Aided in biological assessment of the fishable Lingcod stock and recommend management options in accordance with NMFS fisheries mandates.

Nov. 2003-Aug. 2005

Research Analyst at a socially responsible investment firm

Citizens Advisers, Portsmouth, NH

Engaged in shareholder activism to encourage corporations to improve their corporate governance, and social and environmental performance. Conducted social and environmental research on publicly traded corporations for socially responsible investment funds. Conducted industry research and produced topic papers.

Jun. 2003-Sept. 2003

Research Assistant

Polasky Lab, University of Minnesota-Twin Cities, College of Applied Economics

Prepared subject background summaries on ecosystem service valuation, biodiversity valuation, and renewable energy technologies.

Oct. 2002-Dec.2002

Research Scientist, sustainable mussel fishery project

University of Natal-Durban, South Africa

Designed and implemented sampling protocol for juvenile mussels. Conducted a community education program with the indigenous people.

May 2001-Aug. 2002

Laboratory manager and research scientist

Micheli Lab, Stanford University Marine Labs, Hopkins Marine Station

Responsible for conducting and coordinating field research for a 6-person lab. Responsible for purchasing, maintaining, designing and building lab equipment. Designed and implemented independent research studying human impact on rocky coasts.

Periodic

Commercial fishing

Skiff man, Prince William Sound, AK, purse seine salmon fishery (2010)

Deck boss, Prince William Sound, AK, purse seine salmon fishery (2009)

Deckhand, Bristol Bay, AK, drift gillnet salmon fishery (2008)

PUBLICATIONS

Peer reviewed

29. Bradley C, **Sethi SA**, Ashline J, Gerken J. Cohort-specific variation in juvenile coho salmon habitat use. *Ecology of Freshwater Fish*. In press.

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, Frascchetti 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* 11:341-65.
- 5. Sethi SA**, Branch TA, Watson R (2010) Global fishery development patterns are driven by profit but not tropic level. *PNAS* 107:12163-7. **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*.141:506-16.
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* 71:227-44

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* 525:157-65

1. Veleva V, **Sethi SA** (2004) The electronics industry in a new regulatory climate: protecting the environment and shareholder value. *Corporate Environmental Strategy*. 11:207-24.

Sethi SA, O'Hanley JR, Gerken J, Ashline J, Bradley C. High value of ecological information for river connectivity restoration. In review.

Sethi SA, Bradley C, Harris F. Do gastric implanted radio tags affect swimming performance of adult Chum salmon (*Oncorhynchus keta*) during spawning migration? In review.

Larsen S, **Sethi SA**, Harris B. Maternal effects in on the survival and triploidization of hatchery Chinook salmon (*Oncorhynchus tshawytscha*). In review.

Sztukowski LA, Monson DH, Esler D, **Sethi SA**, Coletti H, et al. Nearshore marine consumer responses to changing prey conditions: combining quantitative and qualitative model input into a conceptual framework. In review.

Wolf N, Harris B, Richard N, **Sethi SA**, Lomac-MacNair K, Parker L. Seasonal distribution of Cook Inlet Beluga whales (*Delphinaptera leucas*) from high frequency aerial survey data. In review.

Technical writing and popular press

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.

RECENT PRESENTATIONS

- Feb. 2017 "High value of life history information for watershed connectivity restoration," **SA Sethi et al.** NY Chapter, American Fisheries Society meeting, Buffalo, NY.
- Feb. 2017 "Describing suitable spawning habitat of Cisco (*Coregonus artedii*) in the Great Lakes and informing restoration efforts in Lake Ontario," M Paufve *et al.* (**SA Sethi 2nd**). NY Chapter, American Fisheries Society meeting, Buffalo, NY.
- Feb. 2017 "Seascape-scale modelling of benthic habitat disturbance from commercial fishing activities," TS Smeltz *et al.* (**SA Sethi 4th**). NY Chapter, American Fisheries Society meeting, Buffalo, NY.
- Feb. 2017 "Seasonal distribution and habitat associations of Shortnose Sturgeon in the Hudson River estuary," R. Penleton *et al.* (**SA Sethi 6th**). NY Chapter, American Fisheries Society meeting, Buffalo, NY..
- Feb. 2017 "Nearshore marine consumer responses to changing prey: combining quantitative and qualitative model input into a conceptual framework," L Sztukowski *et al.* (**SA Sethi 8th**). AK Marine Science Symposium, Anchorage, AK.
- Jan. 2017 "Nearshore marine consumer responses to changing prey: combining quantitative and qualitative model input into a conceptual framework," L Sztukowski *et al.* (**SA Sethi 8th**). AK Marine Science Symposium, Anchorage, AK.
- Jan. 2017 "Satellite tags to measure halibut survival after trawler deck release," C Rose *et al.* (**SA Sethi 7th**). Groundfish Forum annual captain's meeting, Seattle, WA. Dec. 2016 "Barrow's Goldeneye demographic responses to changing mussel conditions on wintering areas: a conceptual model exercises," D. Esler *et al.* (**SA Sethi 7th**). Alaska Bird Conference, Cordova, AK.
- Nov. 2016 "Global fisheries status update: ecological, economic, and social dimensions," **SA Sethi**. Invited lecture, Introduction to Conservation Science (NTRES 2670), Cornell University, NY.
- Oct. 2016 "Estimation of juvenile salmonid age and growth from routinely collected fork length data," **SA Sethi**, J Gerken, J Ashline. Invited talk, AFS NY Student Chapter, Cornell University, NY.
- Sept. 2016 "Informed management: optimal fish passage restoration decisions for Pacific Salmon in Alaska," **SA Sethi**, J Gerken and 3 others. Invited talk, Ecology and Evolutionary Biology, Cornell University, NY.
- July 2016 "Taking salmon ecology through to optimal management decisions: fish passage restoration in Alaska," **SA Sethi**, J Gerken and 3 others. Invited talk, Cornell Biological Field Station Seminar Series, Oswego, NY.
- July 2016 "For the fish and by the fish: integrating life history into optimal aquatic barrier mitigation decisions," **SA Sethi**, J O'Hanley, and 3 others. Computation Sustainability Conference, Ithaca, NY.
- July 2016 "Oceanscape models inform policy options to manage seafloor impact from commercial fishing," **SA Sethi**, TS Smeltz, J B Harris. Computation Sustainability Conference, Ithaca, NY.
- April 2016 "Implementing change in the North Pacific bottom trawl groundfish fishery: sweep modifications success," **SA Sethi**, C Hammond, B Harris, and 4 others. ICES Fish Tech. and Fish Behavior Working Group Annual Meeting, Merida, Yucatan, Mexico.
- Jan. 2016 "A genetics based, capture-mark-recapture approach for estimation of abundance and demographic rates of Pacific Walrus," P Lemons, with **SA Sethi** and 11 others. AK Marine Science Symposium, Anchorage, AK.
- Jan. 2016 "Mesoscale ecosystem processes in the Gulf of Alaska," L Sztukowski, **SA Sethi**, T Hollmen. AK Marine Science Symposium, Anchorage, AK.

- Jan. 2016 "Satellite-reporting accelerometer tags to monitor survival of trawler-deck released halibut," C Rose, with **SA Sethi** and 7 others. AK Marine Science Symposium, Anchorage, AK.
- Nov. 2015 "Assessment of benthic impacts of raised groundgear for the Eastern Bering Sea pollock fishery," B Harris, C Rose, C Hammond, S Zagorski, **SA Sethi**. AK Chapter American Fisheries Society meeting, Homer, AK.
- Nov. 2015 "Cohort-specific variation in habitat associations by juvenile Coho Salmon in the Big Lake Drainage, SC Alaska," C Bradley, J Gerken, J Ashline, **SA Sethi**. AK Chapter American Fisheries Society meeting, Homer, AK.
- Nov. 2015 "Coho Salmon smolt migration dynamics within the Big Lake watershed, AK," J Ashline, J Gerken, **SA Sethi**. AK Chapter American Fisheries Society meeting, Homer, AK.
- Nov. 2015 "Field crew take the weekend off: statistical arrival models to estimate missed passage counts at fish weirs," **SA Sethi**, C Bradley. AK Chapter American Fisheries Society meeting, Homer, AK.
- Nov. 2015 "Modelling fishing effects on habitat across the North Pacific," TS Smeltz, B Harris, JV Olson, **SA Sethi**, C Rose. AK Chapter American Fisheries Society meeting, Homer, AK.
- Nov. 2015 "Maternal effects in the survival of triploid hatchery Chinook Salmon," S Larsen*, **SA Sethi**, MB Krupa, B Harris. AK Chapter American Fisheries Society meeting, Homer, AK.
- Nov. 2015 "Assessing the accuracy and uncertainty of Landsat derived stream temperatures for use in Chinook salmon habitat assessments on the Anchor River," JA Hagan, B Harris, **SA Sethi**. AK Chapter American Fisheries Society meeting, Homer, AK.
- Nov. 2015 "Cumulative impacts assessment of non-fishing stressors on fish habitat, Norton Sound, AK," CV Maio, M Balazs, J Noordeloos, B Harris, **SA Sethi**. AK Chapter American Fisheries Society meeting, Homer, AK.
- Oct. 2015 "Optimal mitigation of fish passage barriers in the Big Lake watershed, AK," **SA Sethi**, J Gerken, J Ashline, C Bradley. Fish Passage Workshop, Juneau, AK.
- Oct. 2015 "Juvenile Coho Salmon distribution, movement, and habitat use in the Big Lake Drainage, AK," **SA Sethi**, J Gerken, J Ashline, C Bradley. Fish Passage Workshop, Juneau, AK.
- August 2015 "Maternal effects in the survival and triploidization of hatchery Chinook salmon," S. Larsen*, **S.A. Sethi**, M. Krupa, B. Harris. National American Fisheries Society Meeting, Portland, OR.
- March 2015 "Reach fidelity and its implications for the survival of overwintering juvenile Chinook salmon," J Boersma, K Hartman, **SA Sethi**. Kachemak Science Symposium, Homer, AK.
- Jan. 2015 "Conceptual ecological models are flexible tools for research planning, prioritization, and communication," T. Hollmen, **S.A. Sethi**. AK Marine Science Symposium, Anchorage, AK.
- Oct. 2014 "Considerations for the development of aquatic plant survey methods for Alaska," C Rich, **SA Sethi**. AK Aquatic Invasive Species Conference, Anchorage, AK.
- Oct. 2014 "Inference about size, growth, and age from juvenile salmon fork length data," **SA Sethi**, J Gerken, J Ashline. AK Chapter American Fisheries Society Meeting, Juneau AK.
- Oct. 2014 "Site fidelity and its implications for the survival of overwintering juvenile Chinook salmon in a south-central Alaskan system," J Boersma, **SA Sethi**, K Hartman. AK Chapter American Fisheries Society Meeting, Juneau AK.
- Oct. 2014 "Putting your money where the fish are: barrier removal optimization in the MatSu valley, AK," J Gerken, **SA Sethi**, J Ashline. AK Chapter American Fisheries Society Meeting, Juneau AK.
- Oct. 2014 "Proposed project for the landscape-scale analysis of the relationship between juvenile chinook salmon size and growth and stream temperature in Western Alaska," J Hagan*, **SA Sethi**, B Harris. AK Chapter American Fisheries Society Meeting, Juneau AK.
- Sept. 2014 "A multi-institutional study of lymph node positive cervical cancer patients treated in the modern era of chemoradiation." RA Sethi, J Mayadev, **SA Sethi**, et al. American Society for Radiation Oncology Meeting, San Fran, CA.
- August 2014 "How many SNP markers for estimating relatedness and parentage in polygamous mammals?" **SA Sethi**, Conservation Genetics Lab seminar, Anchorage, AK.

- April 2014 "Genetic mark recapture techniques provide new opportunities and new challenges," **SA Sethi**, Department of Interior Conservation Training Center, National webinar. Available at: <http://nctc.fws.gov/topic/online-training/webinars/advanced-conservation-genetics.html>
- April 2014 "Guidelines for MSAT and SNP panels that lead to high quality data for genetic mark recapture studies", **SA Sethi**, G Cook, P Lemons, J Wenburg. Wilderness Society Meeting, Anchorage, AK
- Jan. 2014 "A systematic approach to empirical characterization and analysis of fishing communities," **SA Sethi**, G Knapp, M Reimer, W Riggs, Alaska Marine Science Symposium, Anchorage, AK.
- Oct. 2013 "Development of conceptual ecological models to support the GulfWatch Alaska long-term monitoring program," T Hollmen, **SA Sethi**, PICES Meeting, Nanaimo, BC.
- April 2013 "Detection efficiency and habitat use to inform inventory and monitoring efforts: juvenile Coho salmon in the Knik River Basin, Alaska," **SA Sethi**, E Benolkin. Western Division AFS meeting, Boise, ID.
- April 2013 "Communicating data through effective visuals," **SA Sethi**, invited lecture, Cal Poly, San Luis Obispo, CA.
- March 2013 "Evaluation of MSAT and SNP marker sets for use in genetic mark recapture studies," **SA Sethi**, Conservation Genetics Lab, USFWS, Anchorage, AK.
- Jan. 2013 "Empirical measures for Alaskan fishing communities," **SA Sethi**, G Knapp, Alaska Marine Science Symposium, Anchorage, AK.
- Nov. 2012 "Overview of conceptual ecosystem modeling tools," **SA Sethi**, Gulf Watch Alaska annual meeting, Anchorage, AK
- Oct. 2012 "Bayesian implementation of a time stratified Lincoln-Petersen estimator for salmon abundance in the upper Matanuska River, Alaska, U.S.A.," **SA Sethi**, T Tanner. AFS AK meeting, Kodiak, AK
- Oct. 2012 "Managing harvest risk with catch pooling cooperatives," **SA Sethi**, M Dalton, R Hilborn. AFS AK meeting, Kodiak, AK
- Aug. 2012 "An overview of molecular tagging mark recapture analysis," **SA Sethi**, Conservation Genetics Lab, USFWS, Anchorage, AK
- Jan. 2012 "Managing risk in commercial fisheries," **SA Sethi**, USFWS Winter speaker series, Anchorage, AK.

RESEARCH GRANTS

Cumulative total = 2.04 million USD

- 2017-2021 Lake Ontario salmonid management risk assessment: refinement of predator-prey models. \$258,000, PI, with S. Lapan (NYDEC), NY Dept. of Environmental Conservation grant.
- 2017-2018 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.
- 2016-2018 Development of Descriptive Indices for the Spawning and Nursery Habitat for Great Lakes Lake Herring and Their Application to Areas Targeted for Restoration. \$174,000, Co-PI with B. Lantry (USGS) and L. Rudstam (Cornell), Great Lakes Research Institute funding.
- 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, M. Henderson, A. Fuller, D. Isermann, 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), and 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 feasibility funding, 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.
2012	Assessment of Togiak river, AK, Chinook salmon abundance. \$210,000, Co-PI with T. Tanner (USFWS), Federal USFWS funds + state of AK matching.
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
2011	Occupancy modeling of juvenile salmon in the Knik Arm public use area, AK. \$179,000, Co-PI with L. Benolkin (USFWS), federal USFWS funds.
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.

INSTRUCTION

Courses

2016	NTRES 6940, "Controversial conservation topics: seeking a balanced perspective," Cornell University.
2015	MATH220, "Introductory Statistics," directed graduate study, Alaska Pacific University.

Seminars and workshops

2013	"Strategic planning for Chinook salmon management and research: concept mapping + analytic hierarchy process," US Fish and Wildlife Service Kenai Field Office, Kenai, AK
2012-present	"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.

Teaching assistantships

2009-2010	Biology 180 UW-Seattle
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MENTORSHIP

Ongoing: M. Paufve (adviser, M.S. Cornell), T. Scott Smeltz (adviser, Ph.D. Cornell), J. Hagan (co-adviser, M.S. APU), L. Junge (committee, M.S. APU), David Kowalik (committee, M.S. Cornell), Ben Marcy-Quay (committee, Ph.D. Cornell), Meadhbh Moriarty (committee, Ph.D. Ulster University).

Completed: J. Boersma (committee, M.S. WVU 2016), J. Ashline (committee, M.S. APU 2016), S. Larsen (committee, M.S. APU 2015), A. Palmer (M.S. APU, 2016), and C. Pasi (committee, M.S. APU, 2015).

Undergraduate mentorship: Joe Hicks (UAA, 2012), Temitayo Ajayi (Yale, 2012).

PROFESSIONAL SERVICE/SOCIETIES

Advisory committees: Scientific advisory committee for Sitka Conservation Society and Sitka Sound Science Center SALMON project; Expert panel member for the Aleutian Bering Sea Islands Landscape Conservation Cooperative climate vulnerability assessment.

Editorial duties: Associate Editor for Journal of Fish and Wildlife Management (2013 - present).

Membership: American Fisheries Society, American Statistical Association, ICES Fish Tech and Fish Behavior Working Group member.

Reviewer for: AYK Sustainable Salmon Initiative, Canadian Journal of Fisheries & Aquatic Sciences, Conservation Letters, Ecological Modelling, Ecosystems, Environmental Science & Technology, Fisheries Ecology & Management, Fisheries Research, ICES Journal of Marine Science, Journal of Environmental Management, Journal of Fish & Wildlife Management, Natural Resource Modeling, Science, North American Journal of Fisheries Management, North Pacific Research Board, PLOS ONE, Transactions of the American Fisheries Society.

COMPUTER SKILLS

Programming languages and statistical environments: R (expert user), WinBUGS/JAGS, VBA, and Matlab.