Arun Sethuraman Associate Professor

Life Sciences South 250 Department of Biology San Diego State University San Diego CA 92182 Website: www.sethuramanlab.com Email: asethuraman@sdsu.edu Google Scholar Profile:

https://scholar.google.com/citations?user=PIFc

1aYAAAAJ&hl=en&oi=ao

EDUCATION

Doctor of Philosophy, Bioinformatics and Computational Biology (Major), Genetics (Minor)

2013

Bachelor of Engineering (Honors), Computer Science (Major)

2007

2013 - 2016

Birla Institute of Technology and Science, Pilani, India

POSITIONS

Associate Professor of Population Genetics (with Tenure) Department of Biology San Diego State University San Diego, California	2023 - present
Assistant Professor of Population Genetics (Tenure track) Department of Biology San Diego State University San Diego, California	2021 - 2023
Associate Professor of Population Genetics (with Tenure) Department of Biological Sciences California State University San Marcos San Marcos, California	2021 – 2022
Assistant Professor of Population Genetics (Tenure track) Department of Biological Sciences, California State University San Marcos San Marcos, California	2016 - 2021

PROFESSIONAL GROWTH

Research Assistant Professor

Center for Computational Genetics and Genomics,

Advisor: Dr. Jody Hey, Professor, Temple University

Department of Biology, Temple University, Philadelphia, Pennsylvania

Refereed Journal Articles (Undergraduate/graduate/postdoctoral/staff mentees indicated with *)

- Li H, Summerhays B*, Shu X, Vasquez Y*, Vansant H*, Grenier C*, Gonzalez N*, Kansagra K*, Cartmill R*, Ling M, Obrycki JJ, Li B, **Sethuraman A** Global patterns of genomic and phenotypic variation in the invasive harlequin ladybird *BMC Biology*. DOI: 10.1186/s12915-023-01638-7 (Contribution – Lead Author – designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 8.641).
- 2. **Sethuraman A** Teaching Computational Genomics and Bioinformatics on a High Performance Computing Cluster, *Biology Methods and Protocols*. DOI:10.1093/biomethods/bpac032 (Contribution

- Lead & Sole Author designed study, secured funding, collected & analyzed data, wrote manuscript. Impact Factor: 2.11).
- 3. **Sethuraman A**, Stancheva R, Sanders C*, Caceres L*, Castro D*, Hausknecht-Buss H*, Henry S*, Johansen H*, Kasler A*, Lastor S*, Massaro I*, Mekuria I*, Moron-Solano A*, Read N, Vengerova G, Zhang A*, Zhang X, Read B (2022) Genome of a novel *Sediminibacterium* discovered in association with two species of freshwater cyanobacteria from streams in Southern California, *G3*. DOI: 10.1101/2021.08.20.457134 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 3.154).
- 4. Grant T*, **Sethuraman A**, Escobar MA, Vourlitis G (2022) Chronic dry nitrogen inputs alter soil microbial community composition in Southern California semi-arid shrublands, *Applied Soil Ecology*. DOI: 10.1016/j.apsoil.2022.104496 (Contribution Co-author helped analyze data, wrote & edited manuscript. Impact Factor: 5.308)
- 5. Sethuraman A, Tovar A*, Welch W*, Dettmers R*, Arce C*, Skaggs T*, Rothenberg A*, Saisho R*, Summerhays B*, Cartmill R*, Grenier C*, Vasquez Y*, Vansant H*, Obrycki JJ (2022) Genome of the parasitoid wasp *Dinocampus coccinellae* reveals extensive duplications, accelerated evolution, and independent origins of thelytokous parthenogeny and solitary behavior, *G3*. DOI: 10.1093/g3journal/jkac001 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 3.154).
- 6. Vourlitis G, Steinecke D*, Martinez T*, Konda K, Rendon R, Khor S, Hall V, **Sethuraman A** (2022) Fire and post-fire management affects soil microbial abundance and activity in semi-arid shrubland soils, *Soil Biology and Biochemistry*. DOI: 10.1016/j.apsoil.2021.104319 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 7.609).
- 7. Webb A*, Knoblauch J, Sabankar N*, Sukesh Kallur A, Hey J, **Sethuraman A** (2021) The PopGen Pipeline Platform: A Software Platform for Facilitating Population Genomic Analyses., *Molecular Biology and Evolution*. DOI: 10.1093/molbev/msab1113 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 8.8).
- 8. Rushworth C, Baucom R, Blackman B, Neiman M, Orive M, **Sethuraman A**, Ware J, Matute D (2021) Who are we now? A demographic assessment of the evolution societies. *Evolution*. DOI: 10.1111/evo.14168 (Contribution Co-author helped analyze data, wrote & edited manuscript, Impact Factor: 4.171).
- 9. Grenier C*, Summerhays B*, Cartmill R*, Martinez T*, Saisho R*, Rothenberg A*, Scott J*, Obrycki JJ, **Sethuraman A** (2021) Lack of phenotypic variation despite population structure in larval utilization of pea aphids by populations of the lady beetle *Hippodamia convergens*. *Biological Control*. DOI: 10.1101/740506 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 3.90).
- Sethuraman A, Janzen FJ, Weisrock DW, Obrycki JJ (2020) Insights from population genomics to enhance and sustain biological control of insect pests, *Insects*. DOI: 10.3390/insects11080462 (Contribution – Lead Author – designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 3.139).
- Vansant H*, Vasquez Y*, Obrycki JJ, **Sethuraman A** (2019) Coccinellid host morphology dictates morphological diversity of the parasitoid wasp, *Dinocampus coccinellae*. *Biological Control*. DOI: 10.1101/460998 (Contribution – Lead Author – designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 3.90).
- 12. **Sethuraman A**, Gonzalez NM*, Grenier CE*, Kansagra KS*, Mey KK*, Nunez-Zavala SB*, Summerhays BEW*, Wulf GK* (2018) Continued misuse of multiple-testing correction methods in

- population genetics a wake-up call? *Molecular Ecology Resources*. DOI: 10.1111/1755-0998.12969 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 8.678).
- 13. Hey J, Chung Y, **Sethuraman A**, Lachance J, Tishkoff S, Wang Y (2018), Phylogeny estimation by Integration over Isolation with Migration Models, *Molecular Biology and Evolution*. DOI: 10.1093/molbev/msy162 (Contribution Co-author helped analyze data, wrote & edited manuscript, Impact Factor: 8.8).
- **14. Sethuraman A** (2018), Estimating relatedness using admixture proportions in structured populations, *G3*. DOI: 10.1534/g3.118.200485 (Contribution Lead and sole author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 3.154).
- 15. Hendricks S, Garner B, Anderson E, Antao T, **Sethuraman A**, Forester B, Hand B, Hohenlohe P, Kardos M, Koop LB, Bernatchez L, Waples R, Luikart G (2018) Recent advances in population genomics data analysis: Improving bioinformatics and computational approaches, *Evolutionary Applications*. DOI: 10.1111/eva.12659 (Contribution Co-author helped analyze data, wrote & edited manuscript, Impact Factor: 4.929).
- **16. Sethuraman A**, Vasquez Y*, Rubio MA*, Janzen FJ, Obrycki JJ (2017) Recent demographic histories of three predatory lady beetles reveals complex patterns of diversity and population size change in the United States, *Insect Science*. DOI: 10.1111/1744-7917.12481 (Contribution Lead author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 3.605).
- 17. Knoblauch J, **Sethuraman A**, Hey J (2017) IMGui A browser based GUI for Isolation with Migration Analyses, *Molecular Biology and Evolution*. DOI: 10.1093/molbev/msw252 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 8.8).
- 18. Mitchell TS, Refsnider JM, **Sethuraman A**, Warner DA, Janzen FJ (2017) Experimental assessment of winter conditions on turtle nesting phenology and behavior, *Evolutionary Ecology Research*. URL: http://www.evolutionary-ecology.com/abstracts/v18/3052.html (Contribution Co-author helped collect, analyze data, wrote & edited manuscript, Impact Factor: 1.28).
- 19. **Sethuraman A**, Hey J (2017) IMa2p Parallel MCMC and inference of ancestral demography under the isolation with migration (IM) model, *Molecular Ecology Resources*, DOI: 10.1111/1755-0998.12437 (Contribution Lead Author designed study, collected & analyzed data, wrote manuscript, Impact Factor: 8.678).
- 20. Hey J, Chung Y, **Sethuraman A** (2016) On the occurrence of false positives in tests of migration under an isolation with migration model, *Molecular Ecology* DOI: 10.1111/mec.13381 (Contribution Lead Author designed study, collected & analyzed data, wrote manuscript, Impact Factor: 6.622).
- 21. **Sethuraman A**, Janzen FJ, Obrycki JJ (2015) Population genetics of the predatory lady beetle *Hippodemia convergens*, *Biological Control*, DOI: 10.1016/j.biocontrol.2015.01.002 (Contribution Lead Author designed study, collected & analyzed data, wrote manuscript, Impact Factor: 3.90).
- 22. **Sethuraman A**, McGaugh SE, Becker ML*, Chandler CH, Christiansen JL, Hayden S, LeClere A, Monson-Miller J, Myers EM, Paitz RT, Refsnider JM, VanDeWalle T, Janzen FJ (2014) Molecular phylogeography and population genetics of Blanding's Turtle (*Emys blandingii*) in the Midwestern United States, *Conservation Genetics*, DOI: 10.1007/s10592-013-0521-8 (Contribution Lead Author designed study, collected & analyzed data, wrote manuscript, Impact Factor: 3.092).
- 23. Shaffer B et al. (2013) The Painted Turtle Genome: extreme physiological adaptations in a slowly evolving lineage, *Genome Biology*, DOI: 10.1186/gb-2013-14-3-r28 (Contribution Co-author helped collect, analyze data, wrote & edited manuscript, Impact Factor: 17.91).

Refereed Proceedings

- 1. Pasala A, **Sethuraman A**, Niranjani S, Gorthi RP (2009) Managing Global Software: the MAS way. SETLabs Briefings on Knowledge Engineering and Management, Infosys Limited. (Contribution Co-author helped collect, analyze data, wrote & edited manuscript)
- 2. Gorthi A, Niranjani S, Pasala A, **Sethuraman A** (2009) Applications of Collaborative Multi-Agent Technology to Business A Comprehensive Survey. SETLabs Briefings on Knowledge Engineering and Management, Infosys Limited. (Contribution Co-author helped collect, analyze data, wrote & edited manuscript)
- 3. **Sethuraman A**, Yalla KK*, Sarin A*, Gorthi RP (2008) Agents Assisted Software Project Management. Proceedings of the 1st Bangalore Annual Compute Conference, ACM, New York, NY. DOI: 10.1145/1341771.1341777 (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript).
- Pasala A, Sethuraman A, Niranjani S, Gorthi RP, Gadde KB (2008) Context-aware Mobile Assistant Agents in Software Project Management. Proceedings of IEEE TENCON 2008, IEEE. DOI: 10.1109/TENCON.2008.4766780 (Contribution - Co-author – helped collect, analyze data, wrote & edited manuscript)

Patents

1. Method for Providing Context Aware Access in Global Software Project Management – Pasala A, **Sethuraman A**, Niranjani S, Gorthi RP (2012)

Publications in Process

- Tovar A*, Monahan S*, Kristan A*, Welch W*, Dettmers R*, Arce C*, Buck T*, Ruben M*, Rothenberg A*, Saisho R*, Cartmill R*, Skaggs T*, Reyes R*, Lee MJ*, Obrycki J, Kristan W, Sethuraman A. Like mother, like daughter? Phenotypic plasticity, environmental covariation, and heritability of size in a parthenogenetic wasp. *In Revision*. bioRxiv DOI: 10.1101/2022.12.02.518902
- 2. Jones AG, Obrycki JJ, Weisrock DW, **Sethuraman A** Shared patterns of population genomic variation and phenotypic response across rapid range expansions in two invasive lady beetle species, *In Revision*. (Contribution Lead Author designed study, collected & analyzed data, wrote manuscript). DOI: 10.1101/2023.01.13.523993
- 3. **Sethuraman A**, Sousa V, Hey J Model-based assessments of differential introgression and linked natural selection during divergence and speciation, *Submitted*. DOI: 10.1101/786038. (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 8.8).
- 4. **Sethuraman A**, Nunziata S, Jones AG, Weisrock DW, Obrycki JJ Range-wide Population genomics of *Hippodamia convergens* and implications for biological control. *In* Revision. bioRxiv DOI: 10.1101/2023.05.11.540381 Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 4.929).
- 5. Schiebelhut LM, et al., Practical guidance in conservation genomics: from study design to application, *in revision, Molecular Ecology Resources, In Revision.* (Contribution Co-author helped collect, analyze data, wrote & edited manuscript, Impact Factor: 8.678).
- 6. Sustaita D, Wulf G*, **Sethuraman A** Genetic correlates of variation in beak morphology and bite performance in loggerhead shrikes (*Lanius Iudovicianus*), *Journal of Avian Biology, Revise and*

- Resubmit. (Contribution Co-author helped collect, analyze data, wrote & edited manuscript, Impact Factor: 2.248).
- 7. Lynch M*, **Sethuraman A** Accounting for gene flow from unsampled "ghost-populations" while estimating evolutionary history under the IM (Isolation with Migration) model. bioRxiv DOI: 10.1101/733600 *Molecular Ecology Resources, Revise and Resubmit*. (Contribution Lead Author designed study, secured funding, collected & analyzed data, wrote manuscript, Impact Factor: 8.678).
- 8. Stancheva R, **Sethuraman A**, Archambeau J, Tsang J, Onwukwe M, Chang A, Velasquez C, Caughran E, Palacios D, Hunter B, Ihenyen C, Khadivar H, La Praire C, Read N, Vega B, Zhang X, Becket E, Read B Characterizing the microbial metagenome of calcareous stromatolite formations in the San Felipe Creek in Anza Borrego Desert, *Submitted*. bioRxiv DOI: 10.1101/2023.05.12.540589 (Contribution Co-author helped collect, analyze data, wrote & edited manuscript)

Methods/Software Developed and Maintained

- 1) **PPP** Pop-gen Pipeline Platform (Python) Comprehensive platform for population genomic analyses <u>ppp.readthedocs.io/en/latest/</u>
- 2) **InRelate** (R) Accurate estimation of genetic relatedness from multi-locus, multi-allelic genomic data in inbred/structured populations www.github.com/arunsethuraman/inrelate
- 3) **MigSelect** (C/C++) Estimation of linked natural selection and differential introgression under the Isolation with Migration (IM) model <u>www.github.com/arunsethuraman/migselect</u>
- 4) **MULTICLUST** (C/C++)— Estimation of population structure and admixture proportions from multi-allelic, multi-locus population genomic data <u>www.qithub.com/arunsethuraman/multiclust</u>
- 5) **IMa2p** (C++) Parallel estimation of evolutionary demographic history under the Isolation with Migration (IM) model <u>www.github.com/arunsethuraman/ima2p</u>
- 6) **IMa3** (C++) Parallel estimation of evolutionary demographic history and population trees under the Isolation with Migration (IM) model www.github.com/jodyhev/ima3
- 7) **IMGui** (JavaScript) Graphical User Interface for IMa2p and IMa3 for estimation of evolutionary history under the Isolation with Migration (IM) model https://github.com/jaredgk/IMgui-electron-packages

Scholarly Awards

- 2020 Kerri Mowen Excellence in Faculty Mentoring Award, CSUSM Office of Graduate Studies and Research
- 2019 Nominee/Candidate for CSUSM Wang Family Excellence Award
- 2018 CSM Outstanding Faculty-Student Collaboration Award, CSUSM (awarded to Yumary Vasquez and **Sethuraman A** \$1000
- 2016 Faculty Merit Award for Excellence in Research and Teaching, Temple University
- 2015 Faculty Merit Award for Excellence in Research and Teaching, Temple University
- 2014 Entomological Society of America Travel Award \$1000
- 2013 Walter J. Allen and Shaun B. Keister Scholarship, Iowa State University \$1000
- 2013 (S) Iowa State University-Howard Hughes Medical Institute Graduate Teaching Fellowship \$750
- 2013 Dr. Martin Luther King Jr. Iowa State University Advancing One Community Award \$500
- 2012 Iowa State University Teaching Excellence Award
- 2012(F) Iowa State University-Howard Hughes Medical Institute Graduate Teaching Fellowship \$500
- 2012 iEvoBio Travel Grant, National Evolutionary Synthesis Center, Society for Study of Evolution-\$300
- 2012 Professional Advancement Grant, Iowa State University \$200
- 2012(S) Iowa State University-Howard Hughes Medical Institute Graduate Teaching Fellowship \$500
- 2012 Honors Seminar Instructor Development Grant, Iowa State University \$500
- 2011 Professional Advancement Grant, Iowa State University \$200
- 2011 GPSS Peer Teaching Award, Iowa State University \$200
- 2011 Honors Seminar Instructor Development Grant, Iowa State University \$250
- 2011 James Cornette Research Fellowship in Bioinformatics and Computational Biology, Iowa State University \$3,000

2010 – Iowa State University, Department of Ecology, Evolution and Organismal Biology Research Grant – Detecting Allele Size Homoplasy in Cryptically Structured Populations of *Emydoidea blandingii* - \$500 2010 – Sigma Xi Grant in Aid of Research – Quantifying Directed Allelic Flow under Differential Selection Regimes in *Caenorhabditis elegans* - \$400

2008 – Iowa State University, Office of Biotechnology Graduate Fellowship - \$32,000 2007 – Infosys Recognition Award for Excellence in Research in Artificial Intelligence - \$500

Funded Research Grants

Awarded - Total \$2,904,379 (as of September 2023)

- 2023 NSF INTERN Supplement "Developing a Machine Learning Framework to Predict Conservation Status of a Species from Population Genomic Data with Missingness" - \$61,612, PI: Sethuraman A
- 2023 NSF ACCESS Education Allocation (Spring 2023) 800,000 core-hours, "Sethuraman's Course: BIOMI 609 Computational Genomics and Bioinformatics at San Diego State University", PI: Sethuraman A
- 3. 2022 USDA HSI Award #2022-77040-38529 (09/15/2022 09/14/2026) "The Farm Classroom a comprehensive approach incorporating soil ecology, virology, and population genomics in hops (*Humulus lupulus* L.) biology" \$283,804, PI: **Sethuraman A**, co-PI's: Vourlitis G, Jancovich J
- 4. 2022 NSF ACCESS Education Allocation (Fall 2022) 650,000 core-hours, "Sethuraman's Course: BIOL 624 Population Genetics at San Diego State University", PI: **Sethuraman A**
- 5. 2022 NSF XSEDE Education Allocation (Spring 2022) 500,000 core-hours, "Sethuraman's Course: BIOMI 609 Computational Genomics and Bioinformatics at San Diego State University", PI: **Sethuraman A**
- 6. 2021 NIH R15 #1R15GM143700-01, "The Genomic Landscape of Archaic Variation in Modern Humans" (07/01/2021 06/30/2024) \$440,987, PI: **Sethuraman A** (PI transfer to Dr. Kimberly Ayers, CSUSM) Acceptance Rate: 30%
- 2021 NSF CAREER Award #2147812 (08/15/2021 04/30/2026), "Developing New Computational Methods to Address the Missing Data Problem in Population Genomics" - \$600,344, PI: Sethuraman A – Acceptance Rate: 14-24%
- 8. 2021 CSUPERB COVID-19 Research Recovery Microgrant (Fall 2021) "Deciphering the Evolutionary History of *Dinocampus coccinellae* (Hymenoptera: Braconidae)" \$1,500, PI: **Sethuraman A**
- 9. 2019 CSUSM GPSM (Summer 2019) "Transcriptome sequencing of the predatory lady beetle, *Hippodamia convergens*" \$3,000, PI: **Sethuraman A**
- 10. 2019 NSF REU grant #1852189 (03/01/2019-02/28/2023) "Next Generation Sequencing and Beyond: from Beetles to Beer" \$390,867, PI: Betsy Read, Co-PI: **Sethuraman A**.
- 11. 2018 CSU-AWS Credit Award Co-Pl's **Sethuraman A**, Panahi A, and Macklin T \$50,000 (in AWS credits)
- 12. 2018 USDA NIFA REEU #2017-06423 (07/01/2017 01/01/2023) "From field to lab to the classroom Development of a research-based undergraduate course in Molecular Methods for the agricultural/natural resource sciences.", \$278,679; PI: George Vourlitis, Co-PI: **Sethuraman A**
- 2018 CSUSM Faculty Center Professional Development Grant (January 2018) \$750, PI:
 Sethuraman A
- 14. 2017 CSUSM GPSM #86969 (May-July 2017), "The adaptive evolutionary history of host-specificity in the parasitoid wasp, *Dinocampus coccinellae* (Braconidae)" \$3,000, PI: **Sethuraman A**
- 2016 NSF Advances in Biological Informatics Development grant #1564659 (09/01/2016 08/31/2022) "Improved Tools for Population Genomics" \$794,836, PI: Sethuraman A, Co-PI: Jody (Emanuel) Hey, Temple University Acceptance Rate: 28%

Media Mentions

2022 – "Tracing the 12,000-Year Pedigree of Beer", SDSU News Center - https://newscenter.sdsu.edu/sdsu_newscenter/news_story.aspx?sid=79032

2021 - "Biology Professor Receives Prestigious NSF Award", CSUSM News -

https://news.csusm.edu/biologv-professor-receives-prestigious-nsf-career-award/

2021 - CSUSM Report to the Community - https://www.csusm.edu/rtc/live/

2020 - "Undergraduate Research Conference Receives Rave Reviews", CSUSM News -

https://news.csusm.edu/research-conference/

2019 - "5th Annual BCB Symposium", Iowa State News -

https://www.predictivephenomicsinplants.iastate.edu/5th-annual-bcb-symposium

2019 - "Study shows fire rehabilitation may be missing mark", Carlsbad Business Journal -

https://carlsbad.org/wp-content/uploads/2019/08/CBJ0819 v3.pdf

2019 - "Study shows fire rehabilitation may be missing mark", CSUSM News -

https://news.csusm.edu/research-methods-molecular-evolution-ecology/

2017 - "Poster campaign celebrates LGBTQA community", CSUSM News -

https://news.csusm.edu/beyond-the-stereotype-2017/

2017 - "Grant will help professor gain new insights into population genetics", CSUSM News -

https://news.csusm.edu/grant-will-help-professor-gain-new-insights-into-population-genetics/

2016 - featured Expert on Youngzine - https://youngzine.org/expert/arun-sethuraman

2013 - "Advancing One Community Award recipients announced", Iowa State News -

https://www.inside.iastate.edu/article/2013/01/24/one

Posters and Presentations

Recent Invited Lectures

- 2024 Seminar at Center for Ecological and Evolutionary Dynamics (CEED), University of Southern California, Los Angeles, CA
- 2023 Conservation Genomics 2023, University of Montana
- 2023 Seminar in Biology, Cal Poly San Luis Obispo, San Luis Obispo, CA
- 2023 "Genomics of non-model Organisms" workshop, PAG 2023, San Diego CA
- 2022 Virtual Conservation Genomics 2022, University of Montana
- 2022 Invited speaker, Natural History Museum of Los Angeles (virtual)
- 2022 Seminar in Ecology and Evolutionary Biology, UC Riverside
- 2022 Genomics Education Partnership Research Seminar Series (virtual)
- 2022 oSTEM SQUAD Seminar Series, UC San Diego (virtual)
- 2021 Seminar in Ecology and Evolutionary Biology, UC Davis (virtual)
- 2021 Plenary Speaker, UC Berkeley Center for Computational Biology Retreat (virtual)
- 2021 Virtual Conservation Genomics 2021, University of Montana
- 2021 Seminar in Biology, California State University East Bay, CA
- 2021 Seminar in Biology, California State University Northridge, CA
- 2021 Plenary Speaker, CSUPERB Virtual Symposium 2021
- 2020 Seminar in Biology, San Francisco State University, San Francisco, CA
- 2020 Seminar in Biology, McMaster University, Hamilton Ontario
- 2020 Arthropod Genomics Symposium, i5k Online
- 2020 Seminar in Evolutionary Biology, San Diego State University, San Diego, CA

Recent Conferences/Symposia/Workshops

- 2023 "Forbidden Sex and Sex Forbidden On Strategies that Shaped Species" **Sethuraman A**, Plant and Animal Genomics (PAG 2023), San Diego, CA
- 2023 "Heritability and Phenotypic Plasticity of Body Size in the Parthenogenetic Wasp *Dinocampus coccinellae*" Monahan S, Kristsan A, **Sethuraman A**, CSUPERB Symposium 2023, Santa Clara, CA 2022 "Fast multinomial clustering of multiallelic, polyploid, multilocus genomic data to infer population structure" **Sethuraman A**, PEQG 2022, Asilomar, CA
- 2022 "Bridging the conservation gap with population genetics" Aoki A, **Sethuraman A**, SDSU Student Research Symposium, San Diego, CA

2022 - "Heritability and Phenotypic Plasticity of Body Size in the Parthenogenetic Wasp *Dinocampus coccinellae*" - Monahan S, Kristsan A, **Sethuraman A**, SDSU Student Research Symposium, San Diego, CA

2022 - "An R Package for Estimation of Pairwise Genetic Relatedness" - Nguyen K, **Sethuraman A**, SDSU Student Research Symposium, San Diego, CA

2021 – "Genome of the convergent lady beetle, *Hippodamia convergens* and the evolutionary history of Coleoptera" – Zhang A, Reyes R, Tovar A, **Sethuraman A**, CSUSM Summer Scholars Research Symposium, San Marcos, CA

2020 – "How Does Parasitoid Wasp Size Covary With Its Lady Beetle Host Morphology?" – Dettmers R, Rothenberg A, Saisho R, Tovar A, Skaggs T, Arce C, Welch W, **Sethuraman A**, CSUSM Summer Scholars Research Symposium, San Marcos, CA (online)

2020 – "Bridging the Gap: How population genetics can offer insight into the conservation status of vertebrate species" – Mey K, Steinecke D, Gonzalez N, Rothenberg A, Saisho R, Tovar A, Skaggs T, Dettmers R, Welch W, Arce C, **Sethuraman A**, CSUSM Summer Scholars Research Symposium, San Marcos, CA (online)

Participation in Professional Associations

- 1. Society for Molecular Biology and Evolution 2020-present
- 2. American Genetics Association 2020-present
- 3. Genetics Society of America 2018-present
- 4. Society for the Study of Evolution (SSE) 2009-present
- 5. Midwest Partners in Amphibian and Reptile Conservation (MWPARC) 2009-present
- 6. Association of Computing Machinery (ACM) 2007-2009
- 7. IEEE 2007-2009

TEACHING EFFECTIVENESS

Supervision

Staff – 3 (CSUSM), 2 (Temple University)

Graduate student supervision – 6 (CSUSM), 10 (SDSU)

Independent study supervision – 5 (SDSU), 30 (CSUSM), 1 (Temple University), 4 (Iowa State University) 2 (Infosys)

Graduate Thesis Committee Membership – 7 (CSUSM), 7 (SDSU)

Recent Curriculum Development & Teaching Innovations - San Diego State University, CSU San Marcos, Temple University, Iowa State University

Fall 2023 (18 students) - BIOL 597 Research Methods in Agricultural Sciences - New Prep.

Fall 2022 (24 students). Fall 2023 (20 students) - BIOL 624 Population Genetics - New Prep.

Spring 2022 (30 students), Spring 2023 (30 students) - BIOMI 609 Computational Genomics and Bioinformatics - *New Prep.*

Spring 2022 (10 students) - BIOL 770 Seminar in Evolution and Systematics - New Prep.

Spring 2020 (40 students) - BIOL 212 Evolution - New Prep.

Fall 2019 (18 students) - BIOL 564 Seminar in Evolution - New Prep.

Spring 2019 (10 students), Summer 2019 (10 students), Spring 2020 (20 students), Summer 2020 (20 students), Spring 2021 (10 students), Summer 2021 (14 students) - BIOL 328 Human Heredity – *New Prep.*

Spring 2019 (12 students), Spring 2020 (20 students) - BIOL 596 Molecular Methods in Ecology and Evolution Lecture and Lab- *New Prep.in collaboration with Dr. George Vourlitis*

Fall 2020 (24 students), Spring 2018 (21 students), Spring 2017 (40 students) - BIOL 502 Population Genetics

SERVICE

1. 2023 - present Associate Editor, BMC Biology

2. 2022 – present Executive Committee Member, Beckman Scholars Program

2021 – present
 2021 – present
 2021 – present
 Conference Organizing Committee, Genetics Society of America

5. 2021, 2022 Panelist - Beckman Scholars Program

6. 2021 Panelist – Genome Canada LSARP Competition

 2020, 2021, 2022 Panelist – NSF Evolutionary Processes Cluster, NSF BRC-BIO program, NSF Division of Biological Infrastructure

2020, 2021 Ad hoc Reviewer, NSF-DEB, NSF-ABI, Genome Canada
 2020 – present Member, Diversity Committee, Society for Study of Evolution

10. 2020 – present Topic Editor, Insects, MDPI

11. 2018 - present Associate Editor, G3, Genetics Society of America

12. 2015 – 2020 Blogger, Social Evolution Forum (www.evolution-institute.org/social-evolution-forum/)

13. 2014 - present Contributor, The Molecular Ecologist (www.molecularecologist.com)

14. 2013 - 2016 Faculty Mentor, NIH-MARC program, Temple University

15. 2010 - present Ad hoc reviewer, PNAS, Nature Scientific Data, Journal of Heredity, G3, Ecology and Evolution, Molecular Ecology, Molecular Ecology Resources, Conservation Genetics, Biochemical Genetics, PLoS One, Nature Scientific Reports, Johns Hopkins University Press, Evolutionary Applications, Biological Control, Insects, eLife, Genome Biology and Evolution, Insects, G3, Environmental Entomology, PLoS Genetics, BMC Genomics

16. 2016 – 2021 Mentor, Faculty Mentoring Program, CSUSM 17. 2017 – 2021 Faculty Advisor, Pre-dental Society, CSUSM