STANFORD UNIVERSITY



SHAILI JOHRI – CURRICULUM VITAE

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EDUCATION

2015Ph.D. GeneticsUniversity of Utah (USA)2005M.S. BiochemistryMaharaja Sayajirao University (INDIA)2003B.S. MicrobiologyGujarat University (INDIA)

PROFESSIONAL APPOINTMENTS

January 2020- Postdoctoral Fellow

Hopkins Marine Station, Stanford University

Mentor: Barbara Block

February 2019- Lecturer

December 2019 San Diego State University

January 2017- Elasmobranch Research Scientist

December 2018 San Diego State University, Dept. of Biology

Mentor: Dr. Elizabeth Dinsdale

April 2015- Postdoctoral Fellow

October 2016 University of Washington, Seattle, Center for Conservation Biology

Mentor: Dr. Samuel Wasser

PUBLICATIONS

(undergraduate* and graduate students** mentored by SJ)

- Michael Doane, Michael Reed, Jody McKerral, Lais Farias Oliveira Lima, Bhavya Papudeshi, Megan Morris, Asha Goodman, Shaili Johri, Taylor Dillon, Abigail Turnlund, Meredith Peterson, Maria Mora, Rafael de la Parra Venegas, Richard Pillans, Christoph Rohner, Simon Pierce, Christine Legaspi, Gonzalo Araujo, Deni Ramirez-Macias, Robert Edwards, and Elizabeth Dinsdale. Emergent community architecture despite distinct diversity in the global whale shark (Rhincodon typus) epidermal microbiome. Sci Rep 13, 12747 (2023). https://doi.org/10.1038/s41598-023-39184-5
- Emma N Kerr, Bhavya Papudeshi, Miranda Haggerty, Natasha Wild, Asha Z Goodman, Lais FO Lima, Ryan D Hesse, Amber Skye, Vijini Mallawaarachchi, **Shaili Johri**, Sophia Parker, Elizabeth A Dinsdale Stingray epidermal microbiomes are species-specific with local adaptations. *Front. Microbiol* (2023).
- Doane, Michael P., Colton J. Johnson, <u>Shaili Johri</u>, Emma N. Kerr, Megan M. Morris, Ric Desantiago, Abigail C. Turnlund et al. "The epidermal microbiome within an aggregation of leopard sharks (Triakis semifasciata) has taxonomic flexibility with gene functional stability across three time-points." *Microbial ecology* 85, no. 2 (2023): 747-764.
- Shiffman, D.S., Arguedas Álvarez, T., Bangley, C.W., Boyt, R., Côté, I.M., Daly-Engel, T.S., Davis, A.C., Gaskins, L.C., Graham, J., Graham, R.T. and <u>Johri, S.</u>, 2022. What Can Professional Scientific Societies Do to Improve Diversity, Equity, and Inclusion: A Case Study of the American Elasmobranch Society. In *Frontiers in Education* (p. 302). Frontiers, 2022.

- Doane, M.P., Johnson, C.J., <u>Johri, S</u>. et al. The Epidermal Microbiome Within an Aggregation of Leopard Sharks (Triakis semifasciata) Has Taxonomic Flexibility with Gene Functional Stability Across Three Timepoints. *Microb Ecol* (2022). https://doi.org/10.1007/s00248-022-01969-y
- <u>Johri S</u>, Carnevale M, Porter L, Zivian A, Kourantidou M, Meyer EL, Seevers J and Skubel RA (2021) Pathways to Justice, Equity, Diversity, and Inclusion in Marine Science and Conservation. *Front. Mar. Sci.* 8:696180. doi: 10.3389/fmars.2021.696180
- <u>Johri, S.</u>, Livingston, I*., Tiwari, A**., Solanki, J., Busch, A*., Moreno, I*., Fellows, S., Doane, M.P., Dinsdale, E.A., 2021. Reducing data deficiencies: Preliminary elasmobranch fisheries surveys in India, identify range extensions with greater proportion of female and juvenile landings. *Front. Mar. Sci.* 8. DOI: https://doi.org/10.3389/fmars.2021.619695
- Niner, H.J., <u>Johri, S.</u>, Meyer, J., and Wasserman, S. The pandemic push: can COVID-19 reinvent conferences to models rooted in sustainability, equitability and inclusion?. *Socio Ecol Pract Res* (2020). *DOI:* https://doi.org/10.1007/s42532-020-00059-y
- <u>Johri S</u>, Chapple T, Schallert R, Dinsdale EA, and Block BA. Complete mitochondrial genome of the whitetip reef shark *Triaenodon obesus* from the British Indian Ocean Territory Marine Protected Area. *Mitochondrial DNA Part B* 5 (3), 2347-2349.
- <u>Johri S</u>, Chapple T, Schallert R, Dinsdale EA, and Block BA. Mitochondrial genome of the silky shark *Carcharhinus falciformis* from the British Indian Ocean Territory Marine Protected Area. *Mitochondrial DNA Part B* 5 (3), 2416-2417.
- <u>Johri S</u>, Tiwari A**, Kerr EN* and Dinsdale EA. Mitochondrial genome of the Smoothnose wedgefish *Rhynchobatus laevis* from the Western Indian Ocean. *Mitochondrial DNA Part B*, 5:3, 2083-2084, DOI: 10.1080/23802359.2020.1765209
- Johri S, Dunn N, Chapple T, Curnick D, Savolainen V, Dinsdale EA, and Block BA. Mitochondrial genome of the Silvertip Shark, Carcharhinus albimarginatus, from the British Indian Ocean Territory. *Mitochondrial DNA* Part B, 5:3, 2085-2086, DOI: 10.1080/23802359.2020.1765210
- Dunn N, <u>Johri S</u>, Curnick D, Chapple T, Savolainen V, Dinsdale EA, and Block BA. Complete mitochondrial genome of the gray reef shark, *Carcharhinus amblyrhynchos*. *Mitochondrial DNA Part B*, 5:3, 2080-2082, DOI: 10.1080/23802359.2020.1765208
- Doane M, Morris M, Papudeshi B, Allen L, Pande D, Haggerty M, <u>Johri S</u>, Dinsdale EA et al., The skin microbiome of elasmobranchs follows phylosymbosis, but in teleost fishes the microbiomes converge. Microbiome 8, 93 (2020); DOI: https://doi.org/10.1186/s40168-020-00840-x.
- <u>Johri S</u>, Fellows S**, Solanki JB, Busch A*, Livingston I*, Mora M*, Tiwari A**, Cantu A, Goodman A*, Morris M, Doane MP, Edwards RA, Dinsdale EA. Mitochondrial genome to aid species delimitation and effective conservation of the Sharpnose Guitarfish (*Glaucostegus granulatus*). *Meta Gene*, 2019; *DOI: https://doi.org/10.1016/j.mgene.2020.100648*
- <u>Johri S</u>, Solanki JB, Fellows S**, Cantu A**, Moreno I*, Vyas A, Edwards RA, Dinsdale EA. Genome skimming' with the MinION hand-held sequencer identifies CITES-listed shark species in India's exports market. *Nature Scientific Reports*, vol. 9, no. 1, p. 4476, Mar. 2019, *DOI:* https://doi.org/10.1038/s41598-019-40940-9
- Johri S, Doane M**, Allen L* and Dinsdale EA. Taking advantage of the genomics revolution for biodiversity assessment and monitoring of elasmobranchs. *Diversity*, 11(4), 49, April 2019. DOI: https://doi.org/10.3390/d11040049

- Johri S, Dinsdale E and Solanki JB. Molecular assisted identification of sharks, rays and chimaeras at landing sites in India. F1000Research 2017, 6:1307.
- <u>Johri S</u>, Kelley T, Papudeshi B, Sanders S, Moreno I* and Smith S. Killerwhale metatranscriptome reveals gut microflora capable of metabolizing persistent organic pollutants. (in preparation)
- <u>Johri S</u>, Booth R, Wilson T*, Winters M*, and Wasser S. High Resolution Melt Curves as a method of species identification from scat samples containing mixed DNA. (in preparation)

GRANTS AND FELLOWSHIPS

2021 Building Genomic Seascapes to enable genetic surveillance of illegally fished sharks.

Bertarelli Foundation for Marine Sciences

PIs: Shaili Johri and Block B (Stanford Univ.), Co-PIs: Jayasundara N (Duke Univ.), Fernando D (Blue Resources Trust, Sri Lanka)

2020 Rapid field identification of species and source population of elephants from ivory products for effective ivory trade regulation in Thailand.

World Wildlife Fund- Greater Mekong, Wildlife Crime

PIs: Shaili Johri

2020 Testing Feasibility of Using eDNA for Rapid Characterization of Species in Mixed Fisher Catch.

Innovation Fund, Environmental Defense Fund

PIs: Shaili Johri and Rod Fujita

2020 Population assessments of Northeast Pacific white sharks

California Conservation Genomics Consortium

PIs: Barbara Block, Richard Green Post-docs: Shaili Johri, Katie Moon.

2019 Exploration of deep-sea shark biodiversity and behavior using eDNA, acoustic telemetry and video surveillance in the Bahamas.

National Geographic Explorer Grant

PIs: Austin Gallagher, Co-PIs: Shaili Johri, Camrin Braun, Oliver Shipley, Nicholas Payne, Brennan Philips

2019 Global shark microbiome and conservation program.

S. Lo and B. Billings

PIs: Elizabeth Dinsdale Co-PIs: Shaili Johri

Addressing knowledge and non-knowledge barriers to conservation of Chondrichthyes in Gujarat, India.

Society for Conservation Biology-Marine Section, Small Grants Program.

PIs: Shaili Johri

2018 Developing genomic methods for identification and population assessment of elasmobranchs.

University Grants Program, San Diego State University.

PIs: Shaili Johri and Elizabeth Dinsdale

2017 Molecular taxonomic identification of Chondrichthyes in Gujarat, India.

Society for Conservation Biology-Marine Section, Small Grants Program.

PIs: Shaili Johri

2016 Elasmobranch biodiversity assessment by molecular identification in Gujarat, India.

Society for Conservation Biology-Marine Section, Small Grants Program.

PIs: Shaili Johri and Dipani Sutari

2011 Genetics and Behavior summer course, Cold Spring Harbor Laboratory Fellowship

INVITED SEMINARS

- 2021 Building Genomic Seascapes to enable effective conservation, Scripps Institute of Oceanography, CA, USA.
- 2020 "Genomic tracking of the illegal wildlife trade", MARSAVE UNHAS, Indonesia
- 2020 "Genomic tracking of the illegal wildlife trade", California Academy of Sciences
- 2020 "Using genomic to fight illegal fishing", BIOT Marine Science Seminar Series
- **2020** "Genomic tracks in the wildlife trade and conservation" Stanford University, Ecology and Evolution lunch seminar series.
- **2020** "Taking advantage of the 'omics' revolution for monitoring and conservation of wildlife." Society for Conservation Biology, Webinar Wednesday series.
- 2019 "Unraveling shark secrets: Sequencing genomes and microbiomes for conservation." STEM Lecture Series, San Diego Mesa College.
- 2019 "Taking advantage of the omics revolution to monitor and protect wildlife populations". Environmental DNA symposium, Aarhus University, Denmark.
- 2019 "Unraveling shark secrets: MinION sequencing of genomes and microbiomes for conservation research". London Calling 2019, London, UK (Plenary speaker, May 2019)

 Video link: https://www.youtube.com/watch?v=2mJkyEJpef0
- 2019 "Unraveling shark secrets: Sequencing genomes and microbiomes for conservation research". Conservation Research Institute, San Diego Zoo and Safari Park
- 2017 "Novel genetic and metagenomic techniques for health assessment of free ranging marine mammals". Southern California Marine Mammal Workshop, Newport Beach, CA.

SELECTED CONFERENCE ACTIVITY

- Johri S, Block B., Chapelle T., Curnick D, Kumar D, Fernando D, Tanna A and Tayabji Z. Building Genomic Seascapes to enable effective conservation of sharks and ecosystems. Sharks International, Valencia, Spain.
- 2020 Johri S, and Block B., Building Genomic Seascapes to enable effective conservation of sharks. Sixth International Marine Conservation Congress (virtual)
- 2019 Johri S, Dinsdale EA, Doane M, Solanki J. Community perspectives and portable sequencers for monitoring and conservation of whale sharks. Fifth International Whale Shark Conference, Exmouth, WA, Australia.
- 2018 **Johri S**, Dinsdale EA, Tiwari A, Goodman A, Solanki JB. Mapping ecological distribution of Chondrichthyes in western India. Fifth International Marine Conservation Congress, Kuching, Malaysia.
- 2018 Tiwari A, Johri S, Moreno I, Busch A, Livingston I, Kumar C, Bloch F, Dinsdale EA, Solanki JB. Fisheries dependent biodiversity survey of Chondrichthyes in western India. Fifth International Marine Conservation Congress (poster) Kuching, Malaysia.
- Johri S, Dinsdale EA, Solanki JB. Molecular assisted identification of Chondrichthyes in India. International Congress for Conservation Biology (poster) Cartagena, Colombia.
- 2017 Johri S, Wasser S, Winters M, Wilson T, Booth R. Novel and noninvasive methods for monitoring carnivore populations and their interactions in terrestrial ecosystems. International Congress for Conservation Biology, Cartagena, Colombia.
- Wasser S, Lundin J, **Johri S**. Cumulative effects of chinook salmon abundance and toxicants on Southern Resident Killer Whales. Fourth International Marine Conservation Congress, St.John's, Canada.

TEACHING

Spring 2022 Co-Instructor: Stanford University

1.Stanford at SEA (S-303)

2. Nature & People of Monterey Bay (BIOHOPK 119H, 3 credits)

Fall 2019 Lecturer: San Diego State University

Biology 100 (BIOL 100, 6 credits)

Spring 2019 Lecturer: University of San Diego

Genomes and Evolution (BIOL 242, 3 credits)

2012-2014 Teaching assistant: Dev. Biology (300 level, 3 credits) University of Utah, SLC, UT.

MEDIA AND PRESS

2019 "Interview on research and conservation efforts for sharks": KPBS / NPR Evening Edition https://www.kpbs.org/news/2019/jul/26/new-genetic-screening-method-sdsu-researchers-aid-/

2019 "Handheld sequencer can quickly identify illegal shark fins." Wildlife Watch, National Geographic. https://www.nationalgeographic.com/animals/2019/04/handheld-dna-device-finds-illegal-shark-fins/

2019 "From India to SDSU: A new shark genome." Newscenter, San Diego State University. https://newscenter.sdsu.edu/sdsu_newscenter/news_story.aspx?sid=77572

2018 "Member Spotlight: Shaili Johri" Society for Conservation Biology. https://conbio.org/publications/scb-news-blog/member-spotlight-shaili-johri

2017 "Unregulated fishing could drive sharks to extinction in India." *The IndianEXPRESS*.

https://indianexpress.com/article/india/unregulated-shark-fishing-could-drive-them-to-extinction-in-india-expert-4783303/

SELECTED PROFESSIONAL AND SYNERGISTIC ACTIVITIES

Journal Editor and Referee:

Editor: Frontiers in Marine Biology

Referee: Molecular Biology Reports, Nature Scientific Reports, Frontiers in Marine Biology, OCEANA.

Professional Society memberships:

President-Society for Conservation Biology Marine Program (2023-2025)

Member-American Elasmobranch Society

Conference organization:

- 1. Symposium chair: Priorities for conservation of elasmobranch in Asia. Fifth International Marine Conservation Congress, Kuching, Malaysia (2019).
- 2. Board member and Organizer, Sixth International Marine Conservation Congress, virtual (2020).
- 3. Chair: Seventh International Marine Conservation Congress, Cape Town, South Africa (2023).

Professional Training Workshops:

Sequencing at Sea, Sixth International Marine Conservation Congress, virtual 2020.

Mentorship:

Mentored 3 graduate (Asha Goodman (PhD candidate), Brandie White (PhD candidate), Anjani Tiwari (MS) and 9 undergraduate students Maitri Pal (PhD Candidate, Scripps Institute of Oceanography), Jessica Jhang, Tanvi Dutta & Sydney Schmitter (Stanford University), Isabel Moreno (PhD Candidate, University of Houston), Anissa Busch (BS Environmental Science), Isabella Livingston (PhD Candidate), Emma Kerr (PhD Candidate), Abigail Turnland (PhD Candidate).

Outreach and Science Communication:

- 1. Sustainable shark fisheries initiative: Led outreach, education and exchange programs among fishing communities and graduate/undergraduate students in western India, one of the largest shark fishing community in India.
- 2. Marine Science Day: Participated in marine science communication and education activities at MSD with 1000+ adult and student members of the public.
- 3. Brain Awareness Week (BAW): Chaired BAW Utah Chapter (2008-2010), led a team of 100+ university

students as part of annual BAW, reached out to 1000+ K-12 students and 300+ adults by conducting educational classes and lectures on science awareness and education.

Diversity, Equity and Inclusion:

Diversity Officer-Society for Conservation Biology (SCB)-Marine Section (January 2019-present). Elected by \sim 3500 SCB-Marine section members to organize and lead a team of scientists and conservation practitioners to increase diversity in conservation research and practice

Policy: Participated in Environment Policy Workshop, Evans School of Public Policy and Governance (2016), led by Michael Lazarus (Director, Stockholm Envt. Institute) and Matt Steuerwalt (Exec. Director of Policy, Governor WA). Investigated economic and political drivers of environmental policy across nations. Identified key determinants driving stakeholder engagement, policy change and policy implementation in global economies.