# Sahas Barve PhD

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#### **PROFESSIONAL APPOINTMENTS**

John W. Fitzpatrick Director of Avian Ecology, Archbold Biological Station Peter Buck Fellow, Smithsonian National Museum of Natural History Postdoctoral Associate, Old Dominion University	2023-Present 2019-2022 2017-2019
EDUCATION	
Certificate: Teaching and Learning in a Diverse Classroom CornellX (TLDC101x)	2020
PhD (Ecology and Evolutionary Biology), Cornell University,	2017
Master of Science (Wildlife Sciences), Wildlife Institute of India	2009
Bachelor of Science (Zoology), Mumbai University	2007

#### PUBLICATIONS

#### Scientific Publications Google Scholar

35. Heather M. H., Bakley T., **Barve S**. (In review, *Florida Field Naturalist*) Florida Scrub-Jay (Aphelocoma coerulescens) pair constructs highest nest on record for the species.

34. Bala R., Kumar S.R., Gokhale P., Mohan D., **Barve S.** (In review, *Journal of Field Ornithology*) House sparrows Passer domesticus show an increase in body size and dorsal feather insulation along a Himalayan elevational gradient.

33. **Barve S.**, Menon T., Ramesh V. (In press, *Global Ecology and Biogeography*), Thermal niche breadth and diet explain variation in elevational migration in Himalayan birds.

32. Johnson A.E.\*, **Barve S.**\*, Dreiss L., Shizuka D., Walters E.L. 2023. Smoke alters patterns of movement and association in a cooperatively breeding bird. *Current Biology* 19: R996-997. \* denotes equal co-authors.

31. Beauchamp G., **Barve S.** 2023. Multiple sentinels in a cooperative breeder synchronize rather than coordinate gazing. *Animals* 13:1524 Link

30. Koenig W.D., **Barve S.**, Haydock J., Dugdale H.L., Oli M.K., Walters E.L. 2023. Inclusive fitness of cooperative polygamy in the acorn woodpecker. *Proceedings of the National Academy of Sciences, USA* 120: e2219345120 Link

29. **Barve S.**, Daniel Cadena, C. 2022. Variation in insulative feather structure in songbirds replacing each other along a tropical elevation gradient. *Ecology and Evolution* 12: e8698. Link

28. Shizuka D., **Barve S.**, Johnson A, Walters E. L. 2022. Constructing social networks from automated telemetry data: a worked example using within- and across-group associations in cooperatively breeding birds. *Methods in Ecology and Evolution* 13: 133-143

27. Thompson C.L., Alberti M., **Barve S.**, Battistuzzi F.U., Drake J.L., Govaert L., Partridge C., Yang Y. 2021. *Integrative and Comparative Biology*), Back to the future: Reintegrating biology to understand how past eco-evolutionary change can predict future outcomes. *Integrative and Comparative Biology* 61:2218-2232 Link

26. **Barve S.**, Riehl C., Walters E.L., Haydock J., Dugdale H.L., Koenig W.D. 2021. Lifetime reproductive benefits of cooperative polygamy vary for males and females in the acorn woodpecker (Melanerpes formicivorus). *Proceedings of the Royal Society-B* 288: 20210579 \* Chosen as cover article

25. Dalvi S., Dixit S., Dharwadkar O., Thackeray T., **Barve S.**, Khot R.2021. The Sakhalin Leaf Warbler Phylloscopus borealoides: A new species for the Indian Subcontinent, and its status in the Andaman Nicobar Islands. *Indian Birds* 17: 65-69 Link

24. **Barve S.**, Ramesh V., Dotterer T.M., Dove C.D. 2021. Elevation, evolutionary origin, and body size drive variation in thermo-insulative feather structure of Himalayan birds. *Ecography* 44: 680-689 Link

23. **Barve S.**, Lahey A.S., Brunner R.M., Koenig W.D., Walters E.L. 2020. Woodpecker wars: Tracking soldiers and spectators with telemetry. *Current Biology* 30: R982-R983 \* Chosen as cover article

22. **Barve S.**, Shankar Raman T. R., Jathar G., Datta A. 2020. Guidelines for conducting research on nesting biology of Indian birds. *Indian Birds* 16: 10-11 # *Invited manuscript* 

21. **Barve S.**, Shankar Raman T. R., Jathar G., Datta A. 2020. When and how to study nesting biology of Indian birds: research needs, ethical considerations, and best practices. *Indian Birds* 16:1-9 # *Invited manuscript* 

20. **Barve S.**, Hagemeyer N., Winter R., Chamberlain S., Koenig W., Winkler D., Walters E. 2020. Wandering woodpeckers: foray behavior in a social bird. *Ecology* 101: e02943

19. Koenig W., Walters E., **Barve S.** 2019. Does helping-at-the-nest help? The case of the acorn woodpecker. *Frontiers of Ecology and Evolution* 7:272

18. **Barve S.**, Koenig W., Haydock J., Walters E. 2019. Habitat saturation results in joint-nesting female coalitions in a social bird. *American Naturalist* 193:830-840

17. Ishtiaq, F., **Barve S.** 2018. Do avian blood parasites influence hypoxia physiology in a high elevation environment? *BMC Ecology* 18:15

16. **Barve S.**, Dixit S., Dhondt A., Ishtiaq F. 2017. Sexual dimorphism in breast stripe width and beak eco-morphology in Himalayan green-backed tits (*Parus monticolus*). *Avian Biology Research* 10:259-263

15. **Barve S.**, Dhondt A. 2017. Elevational replacement of two Himalayan titmice: interspecific competition or habitat preference? *Journal of Avian Biology* 48:1189-1194 \* Chosen as cover article

14. Ramesh V., Gopalkrishna T., **Barve S.**, Melnick D. 2017. Finer spatial resolution improves accuracy of species distribution models in heterogeneous landscapes - a response to Praveen J. *Biological Conservation* 213:247-248 # *Student mentee lead-author* 

13. Heaton-Crisologo T., Joshi V., **Barve S**. 2017. Jack of all calls and master of few: vocal mimicry in the tawny lark (*Galerida deva*). *Avian Biology Research* 10:174-180 # *Student mentee lead-author* 

12. Ramesh V., Gopalkrishna T., **Barve S.**, Melnick D. 2017. IUCN greatly underestimates threat levels of endemic birds in the Western Ghats. *Biological Conservation* 210:205-221 # *Student mentee lead-author* 

11. **Barve S.**, Mathur V., Dhondt A., Ishtiaq F., Cheviron Z. 2016. Life-history characteristics influence physiological strategies to cope with hypoxia in Himalayan birds. *Proceedings of the Royal Society-B* 283:2016.2201

10. **Barve S.**, La Sorte F. 2016. Fruiting season length drives the global distribution of female-only parental care in frugivorous passerines. *PLoS ONE* 11:e0154871

9. Dixit S., Joshi V., **Barve S**. 2016. Bird diversity of the Amrutganga valley, Kedarnath, Uttarakhand, India with an emphasis on the elevational distribution of species. *Checklist* 12:1874 # *Student mentee lead-author* 

8. **Barve S.**, Dhondt A. 2015. A yellow-browed tit (*Sylviparus modestus*) nest from Kedarnath Wildlife Sanctuary, Uttarakhand, India. *Indian Birds* (3&4):110-111

7. **Barve S.**\*, Mason N.\* 2015. Interspecific competition affects evolutionary links between cavity nesting, migration and clutch size in Old World flycatchers (*Muscicapidae*). *Ibis* 157:299-311 (\* Denotes equal contributions)

6. Fry B., Hendrikx I., Rowley P., Jackson T., van der Ploeg H., Johnson R., Sasa M., Dunstan N., **Barve S.**, Lock B., Phillip T., Zivkovic M., Wiley K., Harrison J., Carmichael R., Morris C., Brandl D., Shankar G., McCarthy S., Sunagar K., Pittman J., Cochran C. 2015. Maintaining venomous animal collections: protocols and occupational safety. *Venomous Reptiles And Their Toxins: Evolution, Pathophysiology And Biodiscovery* pp 89-133. Oxford University Press.

5. **Barve S.**, Bhaisare D., Giri A., Gowrishankar P., Whitaker R., Goode M. 2013. A preliminary study on translocation of "rescued" king cobras (*Opihiophagus hannah*). *Hamadryad*, 36:80-86

4. Barve S., Warrier R. 2013. Birds of the Sharavathy landscape. Indian Birds 8:57-61

3. Muralidhar A., **Barve S.** 2013. Peculiar choice of nesting site in Red wattled lapwing (*Vanellus indicus*) in an urban site. *Indian Birds* 8:6-9 # *Student mentee lead-author* 

2. Barve S. 2010. Sri Lanka Frogmouths of Kogar, filling in the gaps. Indian Birds 5:179

1. **Barve S.**, Mohan D., Qureshi Q. 2009. Responses shown by bird communities to teak plantations and surrounding natural forests in Sagar Forest Division, Karnataka, India. *Master's thesis* submitted to the Wildlife Institute of India.

## **Popular Publications**

**Barve S.** 2022. The unique physiologies of elevational niche shifters. *Current Conservation* 15.4. Link

Barve S. 2020. Himalayan birds: Balancing elevation and weather. Sanctuary Asia (October). Link

**Barve S.** and other contributers. 2020. Fifty things we have learnt about the Earth since the first Earth day. Smithsonian Magazine. Link

**Barve S.**, Hagemeyer N., Winter R., Chamberlain S., Koenig W., Winkler D., Walters E. 2020. Wandering woodpeckers: foray behavior in a social bird. Bulletin of Ecological Society of America Link

Barve S. 2017. Immortal flatulence. www.scienceoutside.com Link

Barve S. 2015. A drop of blood, a sea of information. Deccan Herald Spectrum. Link

Barve S. 2015. Banded Tickell's Thrush, Uttarakhand. www.conservationindia.org Link

Barve S. 2014. The Eurasian Woodcock, Kedarnath, Uttarakhand. www.conservationindia.org Link

Barve S. 2014. The Shola Sky-lands. Saevus 37:22-27

**Barve S.** 2014. Snake Translocation: New information, new insights. Nature Kaleidoscope, Bulletin of the Wildlife Institute of India. Link

**Barve S.** 2013. Translocation tragedies: are we really "rescuing" snakes? www.conservationindia.org Link

Barve S. 2009. The Fox, Outfoxed. Hornbill, July-September:4-8

## FELLOWSHIPS AND AWARDS

**Fellowships** Total fellowship support awarded: **\$201000** 

Peter Buck Postdoctoral Fellowship, Smithsonian Institution

	Linda and Samuel Kramer Graduate Student Fellowship, Cornell University	2016
	Johnson Graduate Fellowship for Teaching and Research, Cornell University	2015
	Halberstad and Mary Hartshorne Endowment Fellowship, Cornell University	2015
	Cornell Lab of Ornithology Research Fellowship, Cornell University	2014-2015
	Cornell University Fellowship, Cornell University	2011-2012
	Graduate Fellowship, Wildlife Institute of India	2007-2009
	Awards	
	Maxwell/Hanrahan Award in Field Biology, Maxwell/Hanrahan Foundation	2023
	Ned. K. Johnson Early Investigator Award, American Ornithological Society	2021
	Natural History Section Student Award, Ecological Society of America Conference	2016
	Alexander Wilson Prize for Best Paper, North American Ornithological Conference	2016
	Overall First Prize, Harry W. Greene Grilled Cheese Contest, Cornell University	2016
	Finalist, Cornell University 3 Minute Thesis Competition	2016
	James F. Slevin Assignment Sequence Prize, Knight Institute, Cornell University	2016
	Early Career Ecologist Mentorship Award, Ecological Society of America	2016
RE	SEARCH GRANTS	
	Smithsonian Institution Scholarly Studies Award (2022)	\$44,181
	National Geographic Society Early Career Grant (2020)	\$9,101
	National Science Foundation Collaborative Research Grant (2019) Evolution of cooperation in social woodpeckers (supplement)	\$82,077
	American Ornithological Society Conference Travel Grant (2017)	\$250
	Cornell University Conference Travel Grant (2016)	\$350
	American Ornithologists Union Conference Travel Award (2016)	\$100
	Explorer's Club Exploration Fund (2015)	\$1,000
	Athena Fund (2015)	\$5,000
	Cornell Graduate School Conference Travel Grant (2014)	\$360
	Athena Fund (2013)	\$5,000
	Cornell Graduate School Research Travel Grant (2013)	\$1,930
	Sigma-Xi Grants-in-Aid-of-Research Award (2013)	\$700
	Sigma-Xi (Cornell Chapter) Research Award (2013)	\$600
	Athena Fund (2012)	\$6,000
	Atkinson Centre Sustainable Biodiversity Fund (2012)	\$5,000
	Paul Feeny Fund (2012)	\$810

## TEACHING EXPERIENCE

George Mason Univ Ithaca College, Intro		2)	2021 2020 2020 2020 2015 2013, 2014
Instructor Skype a Scientist- Interactive classroo	ms for grade school students on evolutionary bic	logy 20	20-present
Cornell University- Ecology and Evoluti	on on Islands, Freshman Writing Seminar (BIOE	E 1640)	Fall 2015
<b>Teaching Assistant</b> 2012-2016 <b>Cornell University Courses:</b> Ecology and the Environment (Head TA, BIOEE 1610), Introduction to Conservation Biology (Head TA, BIOEE 2670), Introduction to Evolutionary Biology and Diversity (Head TA, BIOEE 1780) and Tropical Field Ornithology (BIOEE 2460)			
Currently I lead the	ng I have mentored 25 undergraduate and 14 grad Avian Ecology Program at Archbold Biological Sta low are selected students and mentoring experie Academic Institution	ation with a team of sev	en employ-
Martin Burmeister Vijay Ramesh Soham Dixit Taylor Crisologo Anisha Jayadevan Manon Munoz Toni Dotterer Tarun Menon Samantha Rutledge Efrain Salazar-Ortiz Mariana Quintero Pranav Gokhale	University of Applied Sciences, Germany. Columbia University, United States University of Bonn, Germany Cornell University, United States National Centre for Biological Sciences, India University of Tours, France National Museum of Natural History, United states Indian Institute of Science, India National Museum of Natural History, United States National Museum of Natural History, United States	Undergraduate thesis PhD thesis Master's thesis Undergraduate thesis Master's internship Undergraduate thesis Intern PhD thesis Virtual intern Virtual intern Intern Technician	2010-2011 2014-Present 2015-Present 2015-2016 2015 2015 2017-2021 2020-Present 2020-Present 2021-2022 2022-Present 2022-Present

## INVITED TALKS AND SEMINARS

Louisiana State University Museum of Natural History Seminar Series	2023
University of North Florida Biology Seminar Series	2023
University of Montana Ecology and Evolution Seminar Series	2023
Bangor University, (In-person at Archbold Biological Station)	2023
NPTEL Basic Course in Ornithology, (online) Invited Seminar	2023
Mumbai University, Mithibai College, Mumbai (India) Invited Seminar	2023
Indian Institute of Science Education and Research, Mohali (India) Invited Seminar	2022
Nature Conservation Foundation (India) Invited Research Seminar	2022
Indian Institute of Science, Centre for Ecological Sciences (India)	2022
Azim Premji University (India) Invited Research Seminar	2022

National Center for Biological Sciences (India) Invited Seminar	2022
Wildlife Institute of India (India) Invited Research Seminar	2022
Smithsonian National Museum of Natural History (DC) Invited Research Seminar	2022
Archbold Biological Station (FL) Invited Research Seminar	2022
University of Maryland (MD) Invited Research Seminar	2022
Cal Poly Humboldt (CA) Invited Research Seminar	2022
Ithaca College (NY) Biology Seminar Series	2022
Zumbro Valley Audubon Society (MN) Virtual Seminar	2022
Florida Museum of Natural History, Gainsville, Florida, Virtual Seminar	2022
<b>Smithsonian Associates</b> , Valentine's Day Special Program Smithsonian at 8 Virtual Seminar	2022
Patuxent Bird Club and Prince George's County Audubon Soceity Monthly Seminar Series Virtual Seminar	2022
Southern Maryland Audubon Society Monthly Seminar Series Virtual Seminar	2021
Natural History Museum, Los Angeles Research and Collections Virtual Seminar	2021
Duke University Long-term Animal Research Seminar Series Virtual Seminar	2021
<b>USGS</b> Eastern Ecological Science Centre's Lunch and Learn Virtual Seminar	2021
Early Career Award Plenary American Ornithological Society Conference Virtual Seminar	2021
Pondicherry University School of Life Sciences Pondicherry, India Virtual Seminar	2021
Maricopa Audubon Society Arizona, United States Virtual Seminar	2021
University of Louisville Louisville, KY Virtual Seminar	2021
Ram Narain Ruia College Mumbai, India Virtual Seminar	2021
Center for Macroecology, Evolution and Climate Copenhagen, Denmark Virtual Seminar	2021
Northern Virginia Bird Club Monthly Speaker Series Virtual Seminar	2021
Smithsonian National Museum of Natural History, Science Cafe Virtual Seminar	2021
Santa Clara Valley Audubon Society Monthly Speaker Series Virtual Seminar	2021
Audubon Society of Northern Virginia Audubon Afternoon Virtual Seminar	2021
Washington D.C. Audubon Society Monthly Seminar Series Virtual Seminar	2020
Nature Conservation Foundation Weekly Seminar Series, Mysuru, India	2020
Smithsonian Senate of Scientists Invited Lightening Talk, Washington, DC	2020
SPROUTS (NGO)Earth Day Lecture, Link, Mumbai, India	2020
Princeton University Integrative Research in Behavior Group, Princeton, NJ	2020
Cape Henry Audubon Society Monthly Seminar Series, Norfolk, VA	2019
Old Dominion University Biological Sciences Seminar, Norfolk, VA	2019
National Museum of Natural History Vertebrate Zoology Seminar, Washington, DC	2018

Smithsonian Conservation Biology Institute Rock Creek Seminar Series, Washington, DC	2018
Cal Poly Biological Sciences Seminar, San Louis Obispo, CA	2017
University of Chicago Darwin's Weekly Natural History Seminar Series, Chicago, IL	2016
Cornell Lab of Ornithology Monday Night Seminar Series, Ithaca, NY	2016
University of Cape Town, Biosciences Seminar, Cape Town, South Africa	2015
Centre for Ecological Sciences Invited seminar, Indian Institute of Science, Bengaluru, India	2014

## SELECTED CONFERENCE PRESENTATIONS

American Ornithological Society Conference (poster), London, Ontario, Canada	2023
American Ornithological Society Conference, San Juan Peurto Rico	2022
American Ornithological Society Conference, Invited symposium seminar	2021
American Society of Naturalists Meeting, Virtual	2021
North American Ornithology Conference, Virtual Invited symposium seminar	2020
American Ornithological Society Conference, Anchorage, AL Invited symposium seminar	2019
American Ornithological Society Conference, Tuscon, AZ	2018
American Society of Naturalists Meeting, Asilomar, CA	2018
American Ornithological Society, East Lansing, MI	2017
North American Ornithological Conference, Washington, DC *Alexander Wilson Best Student Paper Award	2016
Ecological Society of America Conference, Fort Lauderdale, FL * Best paper in Natural History Section Award	2016
Uttarakhand State Birding Festival, Pawalgarh, Uttrakhand, India	2015
Society for the Study of Evolution Conference, Raleigh, NC	2014

## OTHER PROFESSIONAL EXPERIENCE

	Research taxon
Junior Research Fellow, National Centre for Biological Sciences, India 2011	birds
Project Leader, Draco Trust, India 2010-2011	snakes
Researcher, Aaranyak, India 2010	large mammals
Researcher, Tiger Watch, India 2007	small carnivores

## **OUTREACH ACTIVITIES**

Outreach activities for Archbold Biological Station (ABS) Avian Ecology Program	
Darwin Day, Tour of ABS's Natural History Collection	2023
Bird Lab Open House, Interactive Session for visitors about ABS Bird Science	2023

Previous or non-Archbold Outreach activities	
Expert Interview, Wild Animals Podcast Link	2023
Expert Interview, WIRED Expert Answers Twitter Questions Link	2022
Smithsonian YEAH Virtual Internship for High-school Students, Webinar	2021
Smithsonian Science How, Live Webinar Link Participation by more than 650 students	2021
Expert Interview, Afternoons on BBC Radio Berkshire	2021
<b>#NatureNerding101 Outreach Series</b> Developed the Birding 101 and #SpeakBird mini-series for Twitter, Facebook and Instagr The campaign generated 52,504 likes/comments/shares and reached over 0.7 million us	
Smithsonian Science How, Live Webinar Link Participation by more than 500 students	2020
Smithsonian Science How, Educational Webcast Link Participation by more than 2800 elementary school students	2020
The Expert Is In, and Volunteer Enrichment Programs	2020
Instagram Take-over Content viewed by over 129000 unique users and generated 8900 likes	2020
Expert Interview Quirks and Quarks CBC Radio	2020
Expert Interview Scientific American Podcast	2020
<b>Story-telling</b> , NAOC 2020 story-telling event. I told a story about my experiences spear as an immigrant in the USA Link	aking English 2020
Expert Interview, The County, Naturally, Radio Talk Show 93.9 County FM	2019
Founder, moderator and editor, www.scienceoutside.com Link 2	2017-Present
Consultant, BBC "Wonders of India" series	2016
Expert, Career with Birds, video interview, Cornell Lab of Ornithology Link	2014
Nature Guide, for over 10 not-for-profit-organizations in Mumbai, India	2004-2007

## SELECTED PROFESSIONAL ACTIVITIES AND COMMUNITY SERVICE

**Reviewer, over 50 manuscripts reviewed (selected journals)** American Naturalist, Auk, Avian Conservation and Ecology, Biotropica, Current Zoology, Diversity and Distribution, Ecology, Ecology and Evolution, EMU-Austral Ornithology, Evolutionary Applications, Frontiers in Ecology and Evolution, Global Ecology and Biogeography, Ibis, Journal of Avian Biology, Journal of Biogeography, Journal of Field Ornithology, Proceedings of the Royal Society B, Proceedings of the National Academy of Sciences-USA, Wilson Journal of Ornithology

Elective Councilor, American Ornithological Society	2023-present
Elective Member, American Ornithological Society	2021-present
Associate Editor, Indian BIRDS, New Ornis Foundation	2020-Present
Member and Co-lead, Science Structure Task Force (internal review sub-group)	2021-2022
National Museum of Natural History	

Member, Science Culture Task Force (external review sub-group)	2021-2022
National Museum of Natural History	
<b>Member</b> , Science Creative Communications Council (external review sub-group) National Museum of Natural History	2022
<b>Committee Lead</b> Diversity Equity, Inclusion, and Accessibility Committee American Ornithological Society Annual Conferences	2021, 2022
<b>Founder</b> , Mountain Ecology and Evolution Journal Club (Virtual) Bi-weekly, attended by graduate students from 6 research institutes in India	2020-2022
Member, Diversity and Inclusion Committee, American Ornithological Society	2019-Present
Member, Early Professionals Committee, American Ornithological Society	2019-Present
Research Affiliate, Wildlife Institute of India	2013-present
SKILLS AND RESEARCH TECHNIQUES	
Wilderness First Aid, (including CPR/AED and epinephrine treatment), Cornell Outdoor Education, Cornell University	2016
Building Academic Mentorship Skills Certificate Program, Cornell University	2016
Colman Leadership Program, Cornell University	2016
PROFESSIONAL SOCIETY MEMBERSHIPS	

American Ornithological Society, American Society of Naturalists, Ecological Society of America, Society for Integrative & Comparative Biology, Society for the Study of Evolution