

Eben Goodale

Professor

PI, Behavioral and Community Ecology, Conservation Biology

College of Forestry, Guangxi University, Lab 519

No. 100 DaXue Road, Nanning, Guangxi 530004, PR China

E-mail: ebengoodale@gxu.edu; eben.goodale@outlook.com

Cell: (+86) 18174128262; Skype: eben.goodale

ORCID: 0000-0003-3403-2847

Web: www.animal-ecology-guangxi.com



Biographical Narrative:

Eben Goodale is Professor, PI of a group focusing on animal ecology and conservation at Guangxi University in China. He is interested in the connection between three fields of ecology: behavioral ecology, community ecology and conservation biology. His research focuses on how behavior, particularly communication, affects the interactions between species, and how knowledge about such interactions can be integrated into conservation and management plans. He received his bachelor's from Harvard College (1997), his Ph.D. from the University of Massachusetts, Amherst (2005), and held postdoctoral fellowships at the Massachusetts Institute for Technology, the National Science Foundation (USA) and the University of California, San Diego / University of San Diego. Much of his work has been done on birds and in Sri Lanka, but he has also conducted bird research in India, Papua New Guinea (PNG), and China, and has also worked on communication in bees. He is the first author of "Mixed-species Animal Groups" (Academic Press, 2017), the only book on this topic, and more than 50 scientific articles including publications in general science journals, such as *Trends in Ecology and Evolution*, *Proceedings of the Royal Society B*, *American Naturalist*, and *Biology Letters*, animal behavior journals, such as *Animal Behavior*, and *Behavioral Ecology*, and conservation/environmental journals, such as *Environmental Pollution*, *Diversity and Distributions*, *Agriculture, Ecosystems and Environment*, and *Biological Conservation*. He has taught undergraduate and graduate courses in introductory biology, biodiversity, ecology, and experimental design and statistics in the United States, Sri Lanka, PNG and China. He lives with his wife, the ecologist Uromi Manage Goodale, and his son, David, in Nanning, China.

Education:

- **University of Massachusetts, Amherst** (2005), Ph.D. Thesis title: "Interspecific communication in mixed-species bird flocks of a Sri Lankan rainforest." Major advisors: Bruce E. Byers and Donald E. Kroodsma. 4.0 GPA.
- **Harvard College** (1997), B.A., magna cum laude in Biology.

Teaching and Research Positions:

- Vice-Director, Guangxi Key Laboratory of Forest Ecology and Conservation, **Guangxi University** (GXU, 11/16-present).
- Professor, College of Forestry, **Guangxi University** (10/14-present). Principal Investigator of the Behavioral & Community Ecology, Conservation Biology Group, with a 5-year contract.

- Associate Professor, **Xishuangbanna Tropical Botanical Garden (XTBG), Chinese Academy of Sciences** (9/12-9/14). Associated with the Ecology and Evolution of Plant-Animal Interactions Group.
- Visiting Scholar, **University of California, San Diego** (1/10-7/12; Research Associate, **University of San Diego** (2/10-6/12). Studied interspecific information transfer among pollinating insects in James Nieh's lab.
- Lecturer and Senior Seminar Mentor, **University of San Diego** (1/10-6/12). Taught a survey course on the biology of organisms (BIOL 221, lecture and lab), a course in the principles of environmental science (BIOL 102), and a lab in cellular biology (BIOL 225). Also mentored students on their independent research project (BIOL 495).
- Lecturer, **University of San Diego, California** (10/10-12/10; 10/11-12/11). Taught two semesters of UCSD's introductory course in ecology, behavior and evolution (BILD 3).
- Postdoctoral Fellow, **National Science Foundation USA (NSF) International Research Fellowship Program** (1/07-4/07; 8/07-8/08; 1/09-4/09; 9/09-12/09). Studied developmental, cognitive and functional aspects of vocal mimicry in mixed-species bird flocks of Sri Lanka and Papua New Guinea.
- Research Associate, **University of Massachusetts, Amherst** (1/09-12/09). Affiliated with Jeffrey Podos' lab; studied cultural evolution in the songs of Darwin's finches.
- Adjunct Faculty, **University of New Haven** (8/08-12/08). Taught an undergraduate course (BIO 320) and a graduate course (ENV 601) in the principles of ecology, with laboratory.
- Lecturer, **University of Massachusetts, Amherst** (8/08-12/08). Presented 13 lectures on evolution for the large introductory lecture class for non-majors, "Social Issues in Biology" (BIO 105).
- Visiting Lecturer, **University of Colombo** (1/07-3/07; 3/08-5/08). Taught 10 hours of lectures on experimental design and statistical analysis and an additional five hours of lectures on behavioral ecology.
- Instructor, **Yale School for Forestry and Environmental Sciences** (8/07). Designed and conducted lab demonstration on freshwater ecology and biodiversity for their Masters orientation program.
- Postdoctoral Fellow, **MIT Media Lab** (8/06-11/06; 5/07-7/07)
Worked with Dale Joachim on a NSF-sponsored program using cell phone technology to remotely conduct playback experiments
- Consultant, **Yale School Forests** (9/05-7/07).
Designed and conducted the first bird survey of the actively managed Yale Myers Forest.
- Research Associate, **Field Ornithology Group of Sri Lanka (FOGSL; 5/05-present)**.
Responsible for planning research agenda, finding funding, and supervising students.
- Teaching Assistant, **University of Massachusetts, Amherst** (1/05-5/05; 9/02-5/03).
Designed and taught laboratory curriculum for ornithology (BIO 544) and introductory biology labs (BIO 100 & 101).

Scholarships and Fellowships:

- **NSF International Research Postdoctoral Fellowship** (awarded 8/06, for two years).

- **American Institute of Indian Studies**, Senior Fellowship (awarded 10/05, for four months), to study the effect of land-use on mixed-species flocks of India.
- **NSF Graduate Fellowship** (awarded 4/00, for three years).
- **Fulbright Junior Scholarship** (awarded 9/97, for one year).

Grants:

- **National Science Foundation of China (NSFC) General Project** 31770424: (PI; \$82,000 in research funds, for investigating the vocalizations of group-living birds, awarded 08/17).
- **NSF Conference Symposium Support Grant** (participant; with Katie Sieving, U. Florida, PI; \$13,000 to support 'Mixed-species animal groups' symposium at Ecosummit, awarded 4/16).
- **NSFC Regional Project** 31560119 (PI; \$64,500 in research funds, for sampling mixed-species flocks in Guangxi and Yunnan, awarded 8/15).
- **University of Guangxi, Special Talent Recruitment Program** (\$682,000 in start-up funds, awarded 6/14).
- **San Diego Foundation Blasker Science and Technology Grant** (\$35,916 awarded 5/11)
- **Conservation, Food & Health Organization** (\$12,935 originally awarded to FOGSL 6/06, for twelve months; \$12,022 funded for a second year 11/07), to study the effect of land-use on flocks of Sri Lanka.
- **NSF International Research Postdoctoral Fellowship** (\$48,100 in research funds, awarded 8/6/06).
- **NSF Doctoral Dissertation Improvement Grant** (\$9,684 awarded 7/03).
- **American Ornithologists Union**, Student Research Grant (\$2,500 awarded 6/03).
- **Sigma-Xi Grant-in-Aid-of-Research** (\$1000 awarded 6/03 and \$500 12/01).
- **Woods Hole Scholarship for Field Research** (\$3,200 awarded 3/02).
- **American Ornithologists Union**, Maria Brady Tucker Travel Award (\$1,200 awarded 6/02).

Books:

Goodale, E., Beauchamp, G. and Ruxton, G. D. 2017. Mixed-species animal groups: Behavior, community ecology and conservation. **Academic Press**. ISBN: 978-0-12-805355-3.

Book Chapters:

Goodale, E. and Ruxton, G. D. 2018 (In press). Antipredator benefits from heterospecifics. In: **Encyclopedia of Animal Behavior, second edition** (Bairlein, F. et al., editors). Academic Press, Oxford.

Goodale, E. and Ruxton, G. D. 2010. Antipredator benefits from heterospecifics. In: **Encyclopedia of Animal Behavior** (Breed, M and Moore, J., editors). Academic Press, Oxford.

Peer-Reviewed Journal Articles: (* = Corresponding Author, # = Advised Graduate Student, ° Undergraduate Student)

67) Liang, D., He, C.°, Luo, X., Liu, Y.*, Goodale, E., and Pagani-Núñez, E*. Breath rate of passerines across an urbanization gradient supports the pace-of-life hypothesis and

- suggests diet-mediated responses to handling stress. **Ecology and Evolution**. DOI: 10.1002/ece3.4460
- 66) Lee, M.-B.* and Goodale, E. 2018. Crop heterogeneity and non-crop habitat features can enhance avian diversity in a tropical agricultural landscape in southern China. **Agriculture, Ecosystems and Environment** 265: 254-263.
- 65) Mammides, C.*, Chen, J., Goodale, U. M., Kotagama, S. W., and Goodale, E. 2018. Measurement of species associations in mixed-species bird flocks across environmental and human disturbance gradients. **Ecosphere** 9: e02324.
- 64) Zou, F.*, Jones, H., Colorado Z., G. J., Jiang, D. #, Lee, T.-M., Martínez, A., Sieving, K., Zhang, M., Zhang, Q., and Goodale, E.* 2018. The conservation implications of mixed-species flocking in terrestrial birds, a globally-distributed species interaction network. **Biological Conservation** 224: 267-276
- 63) Zhou, W., Lee, M.-B.*, and Goodale, E*. 2018. The relationship between the diversity of herbaceous plants and the extent and heterogeneity of croplands in noncrop vegetation in an agricultural landscape of south China. **Global Ecology and Conservation** 14: e000399.
- 62) Pagani-Núñez, E., Xia, X., Beauchamp, G., He, R. #, Husson, J. H. D. °, Liang, D., and Goodale, E.* 2018. Are vocal characteristics related to leadership patterns in mixed-species bird flocks? **Journal of Avian Biology** 2018: e01674.
- 61) Xing, S., Cheng, W., Nakamura, A., Tang, C. C., Pickett, E., Huang, S., Odell, E., Goodale, E., Goodale, U. M., and Bonebrake, T.* 2018. Elevational clines in morphological traits of subtropical and tropical butterfly assemblages. **Biological Journal of the Linnean Society** 123: 506-517.
- 60) Jiang, A.*, Jiang, D. #, Zhou, F., and Goodale, E.* 2017. Nest-site selection and breeding ecology of Streaked Wren-Babbler (*Napothera brevicaudata*) in a tropical limestone forest of southern China. **Avian Research** 8: 28.
- 59) Dayananda, S. K. #, Mammides, C., Lee, M.-B., Liu, J.-J., Pasion, B. O., Sreekar, R., Yasuda, M., Quan, R.-C.*, Slik, J. W. F., Tomlinson, K. W. and Goodale, E.* 2017. Topography and soil type are critical to understanding how bird and herpetofaunal communities persist in forest fragments of tropical China. **Biological Conservation** 215: 107-115.
- 58) Souter, N. J.*, Hughes, A. C., Savini, T., Rao, M., Goodale, E., Van Nice, A., Huang, N., Liu, J.-X., Hunt, M. P., O'Connor, D. A., Hueng-Lam, A. L., Gnuen, G., Sun, Y., and Silva, I. 2017. Building capacity for conservation in Southeast Asia: outcomes of the ATBC 2015 Asia-Pacific Chapter meeting conservation education symposium. **Applied Environmental Education and Communication**. doi: 10.1080/1533015X.2017.1322012
- 57) Mammides, C., Goodale, E., Dayananda, S. K. #, Kang, L. and Chen, J.* 2017. Do acoustic indices correlate with bird diversity? Insights from two biodiverse areas in Yunnan Province, south China. **Ecological Indicators** 82: 470-477.
- 56) Abeyasinghe, K. #, Qiu, G.*, Goodale, E.*, Anderson, C. W. N., Bishop, K., Du, B., Evers, D. C., Goodale, M. W., Hintelmann, H., Li, P., Liu, S., Mammides, C., Quan, R.-C., Wang, J., Wu, P., Xu, X.-H., Yang, X.-D., Xiong, M. and Feng, X. 2017. Mercury flow through an Asian rice-based food web. **Environmental Pollution** 229: 219-228.

- 55) Pagani-Núñez, E.* , He, C. °, Wu, Y. W. °, Peabotuwage, I., and Goodale, E.*. 2017. Foraging in the tropics: relationships between species' abundances, niche asymmetries and body condition in an urban avian assemblage. **Urban Ecosystems**. DOI: 10.1007/s11252-017-0682-1
- 54) Sreekar, R.* , Corlett, R., Dayananda, S. #, Goodale, U. M., Kilpatrick, A., Kotagama, S. W., Koh, L. P., and Goodale, E. 2017. Horizontal and vertical species turnover in tropical birds in habitats with differing land use. **Biology Letters** 13: 20170186.
- 53) Gu, H. #, Chen, J., Ewing, H. °, Liu, X., Zhao, J., and Goodale, E.* 2017. Heterospecific attraction to the vocalizations of birds in mass fruiting trees. **Behavioral Ecology and Sociobiology** 71: 82.
- 52) Jiang, A.* , Jiang, D., Wen, Y. and Goodale, E.* 2017. Nest predation on birds that nest in rock cavities in a tropical limestone forest of southern China. **Global Ecology and Conservation** 10: 154-158.
- 51) Abeysinghe, K. #, Yang, X.-D.* , Goodale, E., Anderson, C. W. N., Bishop, K., Cao, A., Feng, X., Liu, S., Mammides, C., Meng, B., Quan, R.-C, Sun, J., and Qiu, G.* 2017. Total and methyl mercury concentrations over a gradient of contamination in earthworms living in rice paddy soil. **Environmental Toxicology and Chemistry** 36: 1202-1210.
- 50) Perera, M. P. °, Kotagama, S. W., Goodale, E., and Kathriarachchi, H. S. 2016. What happens when the nuclear species is absent?: Observations of mixed-species bird flocks in the Hiyare Forest Reserve in Sri Lanka. **Forktail** 32: 96-97.
- 49) Jiang, A., Jiang, D., Goodale, E., Zhou, F., and Wen, H. 2016. Olive-backed Sunbird *Cinnyris jugularis* assisting Crested Bunting *Melophus lathami* at the nest: substantiated evidence for interspecific feeding, Guangxi, south-west China. **Forktail** 32: 93-96
- 48) Duguid, M.* , Morrell, E. H., Goodale, E., and Ashton, M. S. 2016. Changes in breeding bird abundance and species composition over a 20 year chronosequence following shelterwood harvests in oak-hardwood forests. **Forest Ecology and Management** 376: 221-230.
- 47) Pagani-Nuñez, E.* , Barnett, C. A., Gu, H. and Goodale, E.* 2016. The need for new categorizations of dietary specialism incorporating spatio-temporal variability of individual diet specialization. **Journal of Zoology** 300: 1-7.
- 46) Dayananda, S. K. #, Goodale, E.* , Liu, J.-J., Mammides, C., Pasion, B., Quan, R.-C.* , Slik, J. W. F., Sreekar, R. #, Tomlinson, K. W., and Yasuda, M. 2016. Effects of forest fragmentation on nocturnal Asian birds: a case study from Xishuangbanna, China. **Zoological Research** 37: 151-158.
- 45) Pagani-Nuñez, E.* , Chao, H. °, Li, B. °, Li, M. °, He, R. #, Jiang, A., and Goodale, E. 2016. The breeding ecology of the barn swallow *Hirundo rustica gutturalis* in South China. **Journal of Tropical Ecology** 32: 260-263
- 44) Abeysinghe, K. #, Ao, M., Goodale, E., Yang, X.-D., Xu, X.-H., Xu, Z.-D., and Qiu, G.-L.* 2016. Mercury and selenium in arthropods and their bioaccumulation across food webs. **Chinese Journal of Ecology** 35: 1031-1037.
- 43) Mammides, C., Goodale, U. M., Corlett, R. T., Chen, J., Bawa, K. S., Hariya, H., Jarrad, F., Primack, R. B., Ewing, H. °, Xia, X. and Goodale, E.*. 2016. Increasing geographic diversity in the international conservation literature: a stalled process? **Biological Conservation** 198: 78-83.

- 42) Sreekar, R. ^{#*}, Huang, G., Yasuda, M., Quan, R.-C., Goodale, E., Corlett, R. T. and Tomlinson, K. W. 2016. Effects of forests, roads and mistletoe on bird diversity in monoculture rubber plantations. **Scientific Reports** 6: 21822.
- 41) Mammides, C.*, Kounnamas, C., Goodale, E., and Kadis, K. 2016. Do unpaved, low-traffic roads affect bird communities? **Acta Oecologica** 71: 14-21.
- 40) Quan, R.-C.*, Li, H., Wang, B. and Goodale, E.* 2015. The relationship between defecation and feeding in nestling birds: observational and experimental evidence. **Frontiers in Zoology** 12:21.
- 39) Yang, H., Harrison, R., Yi, Z.-F., Goodale, E., Zhao, M.-X., and Xu, J.-C.* 2015. Changing perceptions of forest value and attitudes toward management of a recently established nature reserve: a case study in southwest China. **Forests** 6: 3136-3164.
- 38) Goodale, E., Ding, P., Liu, X., Martínez, A., Walters, M. and Robinson, S. K.* 2015. The structure of mixed-species bird flocks, and their response to anthropogenic disturbance, with special reference to East Asia. **Avian Research** 6:14.
- 37) Mammides, C., Chen, J., Goodale, U. M., Kotagama, S. W., Sidhu, S. and Goodale, E.* 2015. Does mixed-species flocking influence how birds respond to a gradient of land-use intensity? **Proceedings of the Royal Society B, Biological Sciences** 282: 20151118.
- 36) Sreekar, R. ^{#*}, Goodale, E., and Harrison, R. D. 2015. The use of flight initiation distance as index of hunting pressure: a case study in Xishuangbanna, southwest China. **Tropical Conservation Science** 8: 505-512.
- 35) Sreekar, R. [#], Srinivasan, U., Mammides, C., Chen, J., Goodale, U.M., Kotagama, S. W., Sidhu, S. and Goodale, E.* 2015. The effect of land-use on the diversity and mass-abundance relationships of understory avian insectivores in Sri Lanka and southern India. **Scientific Reports** 5: 11569.
- 34) Gu, H. [#], Goodale, E., and Chen, J.* 2015. Emerging directions in the study of the ecology and evolution of plant-animal mutualistic networks: a review. **Zoological Research** 36: 65-71.
- 33) Gu, H. [#], Goodale, E., and Chen, J.* 2015. Does the role that frugivorous bird species play in seed dispersal networks influence their rate of evolutionary divergence? **Global Ecology and Conservation** 3: 121-128.
- 32) Sreekar, R. ^{#*}, Huang, G., Zhao, J.- B., Pasion, B. O., Yasuda, M., Zhang, K., Peabotuwage, I., Wang, X., Quan, R.- C., Slik, F., Corlett, R. T., Goodale, E., and Harrison, R. D. 2015. The use of species-area relationships to partition the effects of hunting and deforestation on bird extirpations in a fragmented landscape. **Diversity and Distributions** 21: 441-450.
- 31) Duan, Q., Goodale, E., and Quan R.-C.* 2014. Bird fruit preferences reflect the frequency of fruit colours in tropical Asia. **Scientific Reports** 4: 5627.
- 30) Zhang, W., Goodale, E., and Chen, J.* 2014. How contact with nature affects children's biophilia, biophobia and conservation attitude in China. **Biological Conservation** 177: 109-116.
- 29) Goodale, E., Kim, E., Nabors, A. °, Henrichon, S. and Nieh, J. C.* 2014. The innate responses of bumble bees to flower patterns: separating the nectar guide from the nectary changes bee movements and search time. **Naturwissenschaften** 101: 523-526.

- 28) Zhang K., Woan, T. S., Jie, L., Goodale, E., Kitajima, K., and Harrison, R. D.* 2014. Shifting baselines on a tropical forest frontier: Extirpations drive declines in local ecological knowledge. **PLOS ONE** 9: e86598.
- 27) Goodale, E.*, Ratnayake, C. P., and Kotagama, S. W. 2014. Vocal mimicry of alarm-associated sounds by a drongo elicits flee and mobbing responses from other species that participate in mixed-species bird flocks. **Ethology** 120: 266-274.
- 26) Goodale, E.*, Ratnayake, C. P., and Kotagama, S. W. 2014. The frequency of vocal mimicry varies due to proximity to nest and nesting stage in a passerine bird. **Behaviour** 151: 73-88.
- 25) Goodale, E.*, Kotagama, S. W., Raman, T. R. S., Sidhu, S., Goodale, U. M., Parker, S., and Chen, J. 2014. The response of birds and mixed-species bird flocks to human-modified landscapes in Sri Lanka and southern India. **Forest Ecology and Management** 329: 384-392.
- 24) Jayarathna, A., Kotagama, S. W. & Goodale, E. 2013. The seasonality of mixed-species flocking in a Sri Lankan rainforest, in relation to the breeding of the nuclear species, the Orange-billed Babbler *Turdoides rufescens*. **Forktail** 29: 138-139.
- 23) Goodale, E.* and Nieh, J. C. 2012. Public use of olfactory information associated with predation in two species of social bees. **Animal Behaviour** 84: 919-924.
- 22) Sridhar, H., Srinivasan, U., Askins, R. A., Canales Delgadillo, J. C., Chen, C.-C., Ewert, D. N., Gale, G. A., Goodale, E., Gram, W. K., Hart, P. J., Hobson, K. A., Hutto, R. L., Kotagama, S. W., Knowlton, J., Lee, T. M., Munn, C. A., Nimnuan, S., Nizam, B. Z., Péron, G., Robin, V. V., Rodewald, A. D., Rodewald, P. G., Thomson, R. L., Trivedi, P., Van Wilgenburg, S. L., and Shanker, K*. 2012. Positive relationships between association strength and phenotypic similarity characterize the assembly of mixed-species bird flocks globally. **American Naturalist** 180: 777-790.
- 21) Goodale, E.*, Goodale, U., and Mana, R. 2012. The role of toxic pitohuis in mixed-species flocks of lowland forest in Papua New Guinea. **Emu – Austral Ornithology** 112: 9-16.
- 20) Beauchamp, G.*, and Goodale, E. 2011. Plumage mimicry in avian mixed-species flocks: more or less than meet the eye? **Auk** 128: 487-496.
- 19) Sidhu, S., Raman, T. R. S. & Goodale, E. 2010. Effects of plantations and home-gardens on tropical forest bird communities and mixed-species bird flocks in the southern Western Ghats. **Journal of the Bombay Natural History Society** 107: 91-108
- 18) Goodale, E.*, and Podos, J. 2010. Persistence of song types in Darwin’s finches, *Geospiza fortis*, over four decades. **Biology Letters** 6: 589-592.
- 17) Goodale, E.*, Beauchamp, G., Magrath, R. D., Nieh, J. C., and Ruxton, G. D. 2010. Interspecific information transfer influences animal community structure. **Trends in Ecology and Evolution** 25: 354-361.
- 16) Satischandra, S. H. K. #, Kodituwakku, P., Kotagama, S. W., and Goodale, E.* 2010. Assessing “false” alarm calls by a drongo (*Dicrurus paradiseus*) in mixed-species bird flocks. **Behavioral Ecology** 21: 396-403.
- 15) Goodale, E.*, and Beauchamp, G. 2010. The relationship between leadership and gregariousness in mixed-species bird flocks. **Journal of Avian Biology** 41: 99-103.

- 14) Ratnayake, C. P., Goodale, E.*, and Kotagama, S. W. 2010. Two sympatric species of passerine birds imitate the same raptor calls in alarm contexts. **Naturwissenschaften** 97: 103-108.
- 13) Goodale, E.*, Nizam, B. Z., Robin, V. V., Sridhar, H., Trivedi, P., Kotagama, S. W., Padmalal, U. K. G. K., Perera, R., Pramod, P., and Vijayan, L. 2009. Regional variation in structure and composition of mixed-species bird flocks of the Western Ghats and Sri Lanka: a review. **Current Science** 97: 648-663.
- 12) Goodale, E.*, Lalbhai, P. #, Goodale, U. M., and Ashton, P. M. S. 2009. The effect of shelterwood cuts and crown thinnings on the abundance and distribution of birds in a southern New England forest. **Forest Ecology and Management** 258: 314-322.
- 11) Goodale, E.*, and Kotagama, S.W. 2008. Responses to conspecific and heterospecific alarm calls in mixed-species bird flocks of a Sri Lanka rainforest. **Behavioral Ecology** 19: 887-894.
- 10) Goodale, E.*, and Kotagama, S.W. 2007. Some observations on the geographic variation of mixed-species bird flocks in Sri Lanka. **Journal of the Bombay Natural History Society** 104: 96-98.
- 9) Joachim, D.*, and Goodale, E. 2007. On the use of cellular telephony for audio interaction with animals. **Biology Letters** 3: 603-606.
- 8) Sathischandra, S.H.K. °, Kudavidanage, E.P., Kotagama, S.W. , and Goodale, E. 2007. The benefits of joining mixed-species flocks for a sentinel nuclear species, the Greater Racket-tailed Drongo *Dicrurus paradiseus*. **Forktail** 23: 145-148.
- 7) Goodale, E.*, and Kotagama, S.W. 2006. Vocal mimicry by a passerine bird attracts other species involved in mixed-species flocks. **Animal Behaviour** 72: 471-477.
- 6) Goodale, E.*, and Kotagama, S.W. 2006. Context-dependent mimicry by a passerine bird. **Proceedings of the Royal Society B, Biological Sciences** 273: 875-880.
- 5) Goodale, E.*, and Kotagama, S.W. 2005. Alarm calling in Sri Lankan mixed-species bird flocks. **Auk** 122: 108-120.
- 4) Goodale, E.*, and Kotagama, S.W. 2005. Testing the roles of species in mixed-species bird flocks of a Sri Lankan rainforest. **Journal of Tropical Ecology** 21: 669-676.
- 3) Jayarathna, A., Caldera, P., and Goodale, E. 2005. Observations on the nesting and parental behaviour of the Ashy-headed Laughing Thrush (*Garrulax cinereifrons*). **Forktail** 21: 163-164.
- 2) Kotagama, S.W., and Goodale, E. 2004. The composition and spatial organization of mixed-species flocks in a Sri Lankan rainforest. **Forktail** 20: 63-70.
- 1) Kroodsma, D.E.*, Byers, B.E., Goodale, E., Johnson, S., and Liu, W. 2001. Pseudoreplication in playback experiments, revisited a decade later. **Animal Behaviour** 61: 1029-1033.

Manuscripts in Revision / Review:

- Peabotuwage, I., Goodale, U. M.*, and Goodale E*. In review (revision submitted September 2018). Does the keystone role of figs vary in natural, rural, and urban habitats? **Biotropica**.
- Zhou, L. #, Peabotuwage, I., Gu, H., Jiang, D., Jiang, A., Zhang, M., Quan, R.*, and Goodale, E.* In review (major revision submitted July 2018). The response of

mixed-species flocks to altitudinal and anthropogenic change in southern and southwest China. **Condor**.

- Jiang, D., Goodale, E., Yang, G., Yu, L., Jiang, A., and Luo, X. In review (major revision submitted September 2018). Modeling the distribution of Nonggang Babbler (*Stachyris nonggangensis*), a threatened bird of limestone forests of the Sino-Vietnam border, and implications for its conservation. **Bird Conservation International**.
- Li, H., Goodale, E.*, and Quan, R.* In review (revision requested August 2018). Nest predation on an abundant generalist bird in tropical China. **Wilson Journal of Ornithology**.
- Dayananda, S. K., Sreekar, R., Mammides, C., Pasion, B., Corlett, R. T., Quan, R., Goodale, E. In review (resubmittal requested August 2018). The conservation value of small forest fragments within monoculture rubber plantations in Xishuangbanna, China. **Biotropica**.
- Pagani-Núñez, E.*, Liang, D., He, C. °, Zhou, X., Luo, X., Liu, Y., and Goodale, E*. In review (submitted August 2018). Expand your niche where you can: Passerine species in human-made habitats have broader isotopic niches, but do not experience higher overlap, than species in natural habitats. **Ecography**.
- Sreekar, R.*, Koh, L. P., Mammides, C., Corlett, R. T., Dayananda, S., Goodale, U. M., Kotagama, S. W., Goodale, E. In review (submitted August 2018) Bird community assembly at multiple spatial scales in the Western Ghats–Sri Lanka biodiversity hotspot: roles of land-use, environment, and space. **Landscape Ecology**.

Popular, Non Peer-Reviewed Publications:

- Goodale, E. 2017. Who does conservation science and why that matters: a personal perspective. **Current Conservation** 11:11-14.
- Goodale, E. 2017. Professor Kotagama's research culture and its significance to Sri Lanka and conservation. Contributed chapter to the book "Kota's Nature: Biography of Professor Sarath W. Kotagama and his Contribution to Ornithology and Conservation in Sri Lanka". Field Ornithology Group of Sri Lanka, Colombo.
- Sreekar, R., Dayananda, S. K., Zhao, J.-B., Gu, B., Li, Q., Wang, X., and Goodale, E. 2014. First record of Pin-tailed Parrotfinch *Erythrura prasina* from China. **BirdingASIA** 22:116-117.
- Goodale, E. 2013. Birds of South Asia (Book Review). **Emu – Austral Ornithology** 113: 397-398.
- Ratnayake, C. P., Goodale, E., and Kotagama, S. W. 2013. Differential 'crack' calls in a tropical magpie: Sri Lanka magpie (*Urocissa ornata*). **Siyoth** 3: 41-49.
- Robinson, J. W., Nieh, J. C., and Goodale, E. 2012. Testing honey bee avoidance of predators: teaching the scientific process through an engaging field experiment. **American Biology Teacher** 74: 452-457.
- Goodale, E., and Sridhar, H. 2010-2015. Mixed-species bird flocks: a bibliography. Internet database at <https://sites.google.com/site/mixedspeciesbirdflocks/>.
- Goodale, E., Salgado, A., and Kotagama, S. W. 2008. Birds of a different feather. **Natural History** 117: 24-28.
- Goodale, E., Caldera, P., and Kotagama, S. W. 2006. Twenty-five years of research on the mixed-species bird flocks of Sri Lanka. **Siyoth** 1: 22-28.

- Goodale, E., Caldera, P., and Jayarathna, A. 2004. The sounds of Sinharaja. Audio CD. **Field Ornithology Group of Sri Lanka**, Colombo, Sri Lanka.
- Goodale, E. 2002. A journey by bus. Pp. 207–210 in: Excursions and explorations, cultural encounters between Sri Lanka and the United States (Jayatilaka, T., ed.). **The United States – Sri Lanka Fulbright Commission**, Colombo, Sri Lanka.

Publicity in Popular Press about Research:

- **New York Times** (2010): “For some birds it’s not always the same old song”. <http://www.nytimes.com/2010/04/20/science/20obsong.html>
- **Conservation Magazine** (2008): “Collect calls: cell phones eavesdrop on birds”. <http://www.conservationmagazine.org/2008/07/collect-calls/>
- **American Scientist** (2006): “Bird mimics other species in the Sri Lankan rainforest”. <http://www.sigmaxi.org/about/news/archive.71.shtml> (also published as *American Scientist*, 94: 289).

Presentations at Scientific Meetings:

From 2006-2017, 21 invited talks at the following venues:

Barnard College • Central Connecticut State Univ. • Environmental Leadership and Training Initiative (moderator; international conference held in Sri Lanka) • Fifth Symposium on Tropical Forest Ecology (keynote speaker for conference held in Hainan, China) • Florida International University • Indian Inst. of Science • Natl. Centre for Biol. Sciences (India) • Natl. Univ. of Singapore • Natl. Forestry Symposium (Sri Lanka) • Nature Conservation Fnd. (India) • San Diego State Univ. • School of Natural Resources and Environment, Univ. of Michigan • Sun Yat-sen University (Guangzhou, China) • Texas Tech Univ. • Univ. of California, San Diego • Univ. of Florida • Univ. of San Diego • Univ. of New England • Xishuangbanna Tropical Botanical Garden • Yale Forest Lecture Series (2 talks)

From 1998-2018, 20 presentations, 4 posters, and 1 workshop at the following meetings:

American Ornithological Union (3 talks, moderator once, 1 poster) • Animal Behavior Soc. (1 talk, moderator once, 2 posters) • Association for Tropical Biology and Conservation, Asian Chapter (3 talks) or full worldwide meeting (1 talk) • Botanical Society of America (1 talk) • Center for Tropical Forest Science (1 talk) • Chinese Ornithological Conference (2 talks) • Ecosummit (co-organized symposium on ‘Mixed-species Animal Groups’ and gave the keynote talk) • International Conference on Mercury as a Global Pollutant (1 workshop co-organized, 1 talk) • Intercol (1 talk) • International Soc. for Behavioral Ecology (2 talks, moderator once, 1 poster) • Rockefeller Univ. Bird Song Workshop (2 talks) • Soc. for Conservation Biology (1 talk) • Soc. for Integrative and Comparative Biology (1 talk)

Membership in Scientific Organizations:

International Society for Behavioral Ecology (2014-2015; 2017-) • Association for Tropical Biology and Conservation (2013-) • Oriental Bird Club (2004-) • Field Ornithology Group of Sri Lanka (life member, 1996-) • Ecological Soc. of America

(2010-2012) • Soc. of Conservation Biology (2008-2012) • Sigma-Xi (2003-2014) • American Ornithologists Union (2000-2014) • Animal Behavior Soc. (2000-2012)

Reviews for and Service to Journals:

- Associate Editor, *Condor: Ornithological Applications* (journal of the American Ornithological Society, 11/17-present)
- Editorial Board Member, *Avian Research* (journal associated with Chinese Ornithological Council, 7/18-present)
- Advisory Board member, *Current Conservation* (12/16-present)
- Associate Editor, *Forktail* (5/07–8/14).
- Journals reviewed for (# of reviews): *Acta Ethologica* (1) • *American Naturalist* (1) • *Animal Behaviour* (12) • *Apidologie* (1) • *Auk* (4) • *Avian Research* (2) • *Behaviour* (1) • *Behavioral Ecology* (6) • *Behavioral Ecology and Sociobiology* (6) • *Bioacoustics* (1) • *Biodiversity and Conservation* (1) • *Biological Conservation* (5) • *Biological Reviews* (1) • *Biology Letters* (3) • *Condor* (3) • *Ecography* (2) • *Ecology* (3) • *Ecology and Evolution* (1) • *Ecosphere* (1) • *Emu – Austral Ornithology* (1) • *Environmental International* (1) • *Ethology* (3) • *Florida Field Naturalist* (1) • *Forest Ecology and Management* (1) • *Forktail* (5) • *Frontiers in Ecology and the Environment* (1) • *Global Ecology and Conservation* (2) • *J. of Animal Ecology* (2) • *J. of Applied Ecology* (1) • *J. of Avian Biology* (2) • *J. of Comparative Psychology* (1) • *J. of Field Ornithology* (4) • *J. of Land Use Policy* (1) • *J. of Ornithology* (1) • *J. of Sustainable Forestry* (3) • *J. of Tropical Ecology* (2) • *Mammalia* (1) • *Naturwissenschaften* (1) • *Ornis Fennica* (1) • *Proceedings of the Royal Society* (3) • *Raffles Bulletin of Zoology* (1) • *Trends in Ecology and Evolution* (2) • *Wilson J. of Ornithology* (1) • *Zoological Research* (1)
- Grants reviewed for (# of reviews): *Human Frontier Science Program* (1), *National Science Foundation International Research Postdoctoral Program* (1).
- Other kinds of reviews: *IUCN World Heritage Nominations*

Advice on Post-Graduate Education and Student Theses:

- Postdoctoral Fellows at GXU:
 - 1) Emilio Pagani-Núñez (3/15-10/16)
 - 2) Myung-Bok Lee (6/15-6/18)
 - 3) Ari Martínez (1/17-7/17)
 - 4) Tongping Su (8/17-present)
- Postdoctoral Fellows at XTBG:
 - 1) Christos Mammides (1/14-12/15; co-supervised with Prof. Chen Jin)
- PhD students at GXU:
 - 1) Jiang Demeng (9/16-present)
 - 2) Estelle Meaux (9/17-present)
 - 3) Salindra Dayananda (9/17-present)
 - 4) Kamal Gosai (9/18-present)
- Masters Students at GXU:

- 1) He Ruchuang (9/15-6/18) “Effect of mimic frequency on predation in a Batesian mimicry system” (with external supervision from Prof. Craig Barnett).
 - 2) Zhou Wenjing (9/15-6/18) “Investigating the diversity of herbaceous plants in agricultural landscapes of Nanning, Guangxi”
 - 3) He Chao (9/16-present)
 - 4) Tharaka Priyadarshana (9/16-present)
 - 5) Youfang Chen (9/18-present)
 - 6) Cheng Li (9/18-present)
- Masters Students at XTBG:
 - 1) Gu Hao (11/12-12/14) “A network perspective: do super-generalists speciate less than generalists and specialists?” (co-supervised with Prof. Chen Jin).
 - 2) Salindra Dayananda (9/13-6/16) “Understanding how the spatial distribution of forest fragments influences birds and amphibians in a deforested landscape of southern tropical China” (co-supervised with Prof. Quan Ruichang).
 - 3) Kasun Abeysinghe (9/13-12/16) “Mercury toxicity in a contaminated terrestrial landscape of inland China” (co-supervised with Prof. Yang Xiaodong and Prof. Qiu Guangle of the Institute of Geochemistry, CAS).
 - External reviewer for Sneha Vijayakumar’s Ph.D. dissertation at the Indian Institute of Science (Kartik Shanker, advisor). 3/15.
 - External reviewer for Tuomo Jaakkonen’s Ph.D. dissertation at University of Oulu (Jukka Forsman, advisor). 4/14.
 - External reviewer for Bransilav Igetic’s Ph.D. dissertation at Australian National University (Robert Magrath, advisor). 10/13.
 - Informal External Advisor to Chaminda P. Ratnayake, University of Colombo, Ph.D. program. Thesis title: “Ecology and behaviour of the Sri Lanka Blue Magpie (*Urocissa ornata*).” Graduated 2010.
 - External Advisor to S. Harsha K. Satischandra, University of Sabaragamuwa, Masters in Science program. Thesis title: “Evaluating false alarm calls in the Greater Racket-tailed Drongo (*Dicrurus paradiseus*).” Graduated 2009.
 - Informal External Advisor to Punit Lalbhai, Yale School of Forestry and Environmental Science. Thesis title: “The effect of shelterwood cuts and crown thinnings on the abundance and distribution of birds in a southern New England forest.” Graduated 2007.
 - External Advisor to S. Harsha K. Satischandra, University of Sabaragamuwa, Undergraduate thesis. Thesis title: “The foraging ecology of the Greater Racket-tailed Drongo (*Dicrurus paradiseus*).” Graduated 2006.

Courses Taught at University Level:

At Guangxi University:

- Principles of Ecology (Spring 2018; Spring 2017, Spring 2015; undergraduate)
- Principles of Ecology (Spring 2018; Spring 2017; graduate)
- Seminar in Statistics and Experimental Design (Fall 2017; Fall 2016; graduate)
- Advanced Statistics (Spring 2016; 2 lectures only)
- Advances in Ecology and Conservation (Fall 2015, Fall 2014; undergraduate; co-taught)

At the University of San Diego:

- Environmental Biology (Spring 2012; undergraduate)
- The Biology of Organisms (Fall 2010; undergraduate)
- Senior Seminar (Fall 2009; undergraduate thesis students)

At the University of California, San Diego:

- Introduction to Organismic and Evolutionary Biology (Fall 2010, Fall 2011; undergraduate)

At the University of New Haven:

- Ecology with Laboratory (Fall 2008; undergraduate and graduate tracks)

At the University of Massachusetts, Amherst

- Biology of Social Issues (Fall 2008; undergraduate; co-taught)

Faculty Experience in Fieldcourses:

- Advanced Course in Ecology and Conservation at Xishuangbanna Tropical Botanical Garden (participated in 1.5 month course in 2012, 2013, 2014, giving lectures in bird ecology and statistics).

Voluntary Educational Activities:

- Participant (11/16-12/16; 11/17-12/17), international career development for Guangxi University staff. Participated in workshop that meets five times over a period of two months to help young professionals polish their CVs and initiate international collaborations.
- Project leader (8/11-12/11), high school outreach program, entitled “Pollinators and predators” funded by the San Diego Foundation. Introduced students to the scientific process through field trips, lectures, dissections and small experiments with bees.
- Workshop organizer, with Uromi M. Goodale, and lecturer for: two-session program introducing R (Divine Word University, 9/09), two-day program on the research process (the National Research Institute, Papua New Guinea, 9/09, and the Binatang Research Center, 12/09), two-day program on statistics (University of Colombo, 3/09), one-day program on career development (Port Moresby, PNG, 12/07), one-day program on proposal writing (University of Colombo, 9/07), and a four-day program on scientific analysis and writing (FOGSL, 1/07).
- Project leader and lecturer (12/06 – 1/09), for secondary school education program by the Field Ornithology Group of Sri Lanka, and funded by the Conservation, Food and Health Foundation, that visited 23 schools and took them on visits to nearby rainforests.
- Participant (1/08-3/08) in the project “Empowering Students in Ecology, Music, and Computer Science through Active Participation in an Elementary Bird Song Curriculum”, funded by the Lindbergh Foundation; prepared podcasts for elementary grade school children to get them interested in birds and animal behavior.
- Guest lectures given: FOGSL general meeting (3/07, 10/04), Sri Lanka Fulbright Commission (9/04), Biology 521 / Community Ecology, University of Massachusetts, Amherst (5/03); Undergraduate Ornithology, University of Colombo (3/07, 2/07, 8/02); Masters Program in Wildlife Ecology, University of Peradeniya (7/01 and 9/98).

- New Haven Science Fair Mentor, for two high-school students (10/05–5/06). The students won the first prize from the New Haven Bird Club and were Finalists and Medalists at the Connecticut Science Fair.
- Fieldtrip organizer and demonstrator of research activities on mixed-species bird flocks in the Sinharaja World Heritage Reserve: FOGSL (9/04, 8/03, and 7/03), Masters Program in Wildlife Ecology, University of Colombo (7/04 and 7/02), Undergraduate Ornithology, University of Colombo (8/03).

Technical Skills:

- Bird identification / banding. Three years of experience using mist nets in Sri Lanka with over 150 birds captured. Twenty years experience with bird identification in the field.
- Sound recording. Twenty years of using shotgun and parabolic microphones, and mono and stereo tape recorders, both analog and digital.
- Sound analysis. Extensive experience using Signal, Avisoft and Raven.
- Radio-telemetry. Tracked five Greater Racket-tailed Drongos (*Dicrurus paradiseus*) over a period of four months in the Sinharaja World Heritage Reserve, Sri Lanka.
- Statistics. Two semesters of 500 level classes in the Department of Statistics, University of Massachusetts, Amherst. Extensive experience using R, and limited experience with SAS and SYSTAT.
- Experience with other computer programs. Moderate experience with ArcView GIS software and C++ programming.
- Experience with teaching technology: Two semesters' experience with WebCT / Blackboard web technology as well as with clickers (specifically, iclickers).
- Languages. Fluent in English; conversant in Sinhala, functional in Mandarin. Limited experience in Tok Pisin, French, Italian, Tamil and Latin.