

Eben Goodale

National Science Foundation (USA) International Research Fellow

Department of Zoology, University of Colombo, Colombo, Sri Lanka and
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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. Kroodsmma. 4.0 GPA.
- **Harvard College** (1997), B.A., magna cum laude in Biology.

Research Positions:

- Visiting Scholar, **University of California, San Diego** (1/10-present).
Studying interspecific information transfer among pollinating insects in James Nieh’s lab.
- Postdoctoral Fellow, **National Science Foundation** (NSF) International Research Fellowship Program (1/07–8/08; 1/09–4/09; 9/09–12/09). Studying developmental, cognitive and functional aspects of vocal mimicry in mixed-species flocks of Sri Lanka and Papua New Guinea.
- Research Associate, **University of Massachusetts, Amherst** (1/09-present). Affiliated with Jeffrey Podos’ lab and studying cultural evolution in the songs of Darwin’s finches.
- Research Associate, **Field Ornithology Group of Sri Lanka** (FOGSL; 5/05–present).
Responsible for planning research agenda, finding funding, and supervising students.
- Postdoctoral Fellow, **MIT Media Lab** (8/06–11/06; 5/05–7/07)
Worked with Dale Joachim on an 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 this actively managed forest.

Teaching Positions:

- Adjunct Faculty, **University of New Haven** (8/08–12/08). Taught an undergraduate course and a graduate course 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”.
- 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.
- 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:

- **National Science Foundation**, 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.

- **National Science Foundation**, Graduate Fellowship (awarded 4/00, for three years).
- **Fulbright Junior Scholarship** (awarded 9/97, for one year).

Grants:

- **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.
- **National Science Foundation**, International Research Postdoctoral Fellowship (\$48,100 in research funds, awarded 8/6/06).
- **National Science Foundation**, Doctoral Dissertation Improvement Grant (\$11,500 awarded 7/03).
- **American Ornithologists Union**, Student Research Grant (\$2500 awarded 6/03).
- **Sigma-Xi Grant-in-Aid-of-Research** (\$1000 awarded 6/03 and \$500 12/01).
- **Woods Hole Scholarship for Field Research** (\$3200 awarded 3/02).
- **American Ornithologists Union**, Maria Brady Tucker Travel Award (\$1200 awarded 6/02).

Peer-Reviewed Scientific Publications:

- Ratnayake, C. P., Goodale, E. & Kotagama, S. W. 2010. Two sympatric species of passerine birds imitate the same raptor calls in alarm contexts. **Naturwissenschaften** 97: 103-108.
- Goodale, E., Nizam, B. Z., Robin, V. V., Sridhar, H., Trivedi, P., Kotagama, S. W., Padmalal, U. K. G. K., Perera, R., Pramod, P. & 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.
- Goodale, E., Lalbhai, P., Goodale, U. M., & 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.
- Goodale, E. & 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.
- Goodale, E. & 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.
- Joachim, D. & Goodale, E. 2007. On the use of cellular telephony for audio interaction with animals. **Biology Letters** 3: 603-606.
- Sathischandra, S.H.K., Kudavidanage, E.P., Kotagama, S.W. & 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.
- Goodale, E. & Kotagama, S.W. 2006. Vocal mimicry by a passerine bird attracts other species involved in mixed-species flocks. **Animal Behaviour** 72: 471-477.
- Goodale, E. & Kotagama, S.W. 2006. Context-dependent mimicry by a passerine bird. **Proceedings of the Royal Society London B, Biological Sciences** 273: 875-880.
- Goodale, E. & Kotagama, S.W. 2005. Alarm calling in Sri Lankan mixed-species bird flocks. **Auk** 122: 108-120.

- Goodale, E. & 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.
- Jayarathna, A., Caldera, P. & Goodale, E. 2005. Observations on the nesting and parental behaviour of the Ashy-headed Laughing Thrush (*Garrulax cinereifrons*). **Forktail** 21: 163–164.
- Kotagama, S.W. & Goodale, E. 2004. The composition and spatial organization of mixed-species flocks in a Sri Lankan rainforest. **Forktail** 20: 63–70.
- Kroodsma, D.E., Byers, B.E., Goodale, E., Johnson, S. & Liu, W. 2001. Pseudoreplication in playback experiments, revisited a decade later. **Animal Behaviour** 61: 1029–1033.

Publications In Press / In Review

- Goodale, E & Beauchamp, G. In press. The relationship between leadership and gregariousness in mixed-species bird flocks. **Journal of Avian Biology**.
- Goodale, E. & Ruxton, G. D. In press (invited book chapter). Antipredator benefits from heterospecifics. Contributed to the **Encyclopedia of Animal Behavior** (Breed, M and Moore, J., editors). Elsevier Science, London.
- Satischandra, S. H. K., Kodituwakku, P., Kotagama, S. W. & Goodale, E. In press. Assessing “false” alarm calls by a drongo (*Dicrurus paradiseus*) in mixed-species bird flocks. **Behavioral Ecology**.
- Goodale, E., Beauchamp, G., Magrath, R. D., Nieh, J. C. & Ruxton, G. D. In revision (concept paper invited). Interspecific information transfer influences animal community structure. **Trends in Ecology and Evolution**.
- Goodale, E., Silverman, E. D. & Kotagama, S. W. In review. The effects of land-use on mixed-species bird flocks of Sri Lanka: a preliminary report. **The Sri Lankan Forester**.
- Goodale, E. and Podos, J. In review. Persistence of song types in Darwin’s finches, *Geospiza fortis*, over four decades. **Biology Letters**.
- Sidhu, S., Raman, T. R. S. & Goodale, E. In review. Effects of land-use changes on tropical forest bird communities and mixed-species bird flocks in the southern Western Ghats. **Journal of Biosciences**.

Selected Popular Publications:

- Goodale, E., Salgado, A. & Kotagama, S. W. 2008. Birds of a different feather. **Natural History** 117: 24-28.
- Goodale, E., Caldera, P. & 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. & 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.

Presentations at Scientific Meetings:

From 2006-2009, 10 invited talks at the following venues:

Central Connecticut State Univ. • Indian Institute of Science • Natl. Centre for Biological Sciences (India) • Natl. Univ. of Singapore • Natl. Forestry Symposium (Sri Lanka) •

Nature Conservation Foundation (India) • School of Natural Resources and Environment, Univ. of Michigan • University of California, San Diego • Yale Forest Lecture Series
From 1998-2008, 10 presentations and 3 posters at the following meetings:
American Ornithological Union • Animal Behavior Society • Center for Tropical Forest Science • International Society for Behavioral Ecology • North American Ornithological Conference • Rockefeller Univ. Bird Song Workshop • Society for Conservation Biology • Society for Integrative and Comparative Biology

Membership in Scientific Organizations:

Society of Conservation Biology (since 2008) • Oriental Bird Club (since 2004) • Bombay Natural History Society (since 2004) • Sigma-Xi (since 2003) • American Ornithologists Union (since 2000) • Animal Behavior Society (since 2000) • FOGSL (life member, since 1996)

Reviews for and Service to Journals:

- Associate Editor, Forktail (5/07 – present).
- Reviewed for: Animal Behaviour • Behaviour • Behavioral Ecology • Behavioral Ecology and Sociobiology • Biology Letters • Condor • Ecology • Ethology • Forktail • J. of Field Ornithology • J. of Sustainable Forestry • J. of Tropical Ecology • Ornis Fennica • Wilson J. of Ornithology

Voluntary Educational Activities:

- 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).

- Scientific Advisor, to Walk-with-Jith (www.walkwithjith.com), Sri Lankan ecotourist company (8/04–present).

Advisor on Student Theses:

- 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 Chaminda P. Ratnayake, University of Colombo, Ph.D. program. Thesis title: “Ecology and behaviour of the Sri Lanka Blue Magpie (*Urocissa ornata*).” Graduation expected 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.

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. Training by the Library of Natural Sounds, Cornell University (6/96). Eleven 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 SAS, SYSTAT, Minitab and limited experience using R.
- Experience with other computer programs. Moderate experience with ArcView GIS software and C++ programming.
- Languages. Fluent in English; conversant in Sinhala and Tok Pisin. Limited experience in French, Italian, Tamil and Latin.