

Shyamala Ratnayeke

Position: Associate Professor
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Education:

Ph.D Life Sciences, University of Tennessee Knoxville, USA

MPhil Zoology, University of Peradeniya, Sri Lanka

BSc Biology, Bangalore University, India

Teaching:

Human Anatomy

Cell Biology

Biodiversity

Brief Employment History:

University of Dodoma, Tanzania Fulbright Scholar and Senior lecturer, School of Biological Sciences.

Georgia Gwinnett College, Lawrenceville Georgia, Assistant professor, Division of Science and Technology.

Research Interests:

Habitat alteration from the expansion of human populations and human activity is the principal factor driving population declines and species extinctions globally. I study the population ecology and habitat relationships of species to identify natural and anthropogenic factors that influence the spatial behaviour and distribution of species at local or landscape scales. Currently, a group of us are studying sun bear distribution and population genetic structure in Malaysia to identify those landscape characteristics most likely to support sun bears and permit connectivity among populations.

Invasive species are another major cause of local extinctions and economic loss to nations. Two species of highly invasive freshwater apple snails within the genus *Pomacea* have spread through much of central and southeast Asia, and are major pests of wetland agriculture. We are studying the phylogeography of *Pomacea* in Malaysia to verify the species, geographic origins, and possible routes of invasion. We are also studying the distribution of the snails in relation to environmental characteristics to predict habitats vulnerable to invasion. This will be important for eradication efforts and subsequent monitoring.

Selected Publications:

RATNAYEKE, S., F. VAN MANEN, R. A. PIERIS, and V. S. J. PRAGASH. 2014. Challenges to large carnivore conservation: sloth bear attacks in Sri Lanka. *Human Ecology* 42:467-479.

RATNAYEKE, S., and F. VAN MANEN. 2012. Assessing sloth bears as surrogates for carnivore conservation in Sri Lanka. *Ursus* 23(2):206-217.

RATNAYEKE, S., F. VAN MANEN, R. A. PIERIS, and V. S. J. PRAGASH. 2007. Landscape characteristics of sloth bear range in Sri Lanka. *Ursus* 18(2):189-202.

RATNAYEKE, S., F. T. VAN MANEN and U.K.G.K. PADMALAL. 2007. Home ranges and habitat use of the sloth bear (*Melursus ursinus inornatus*) at Wasgomuwa National Park, Sri Lanka. *Wildlife Biology* 13(3):272-284.

RATNAYEKE, S., S. WIJEYAMOCHAN and C. SANTIAPILLAI. 2006. The status of the sloth bear in Sri Lanka. Pp. 35- 40, in: T. Oi et al. editors, *Understanding Asian bears to secure their future*. Japan Bear Network, Ibaraki, Japan. 145pp. ISBN: 4-9903230-0-9.

RATNAYEKE, S., G. A. TUSKAN and M. R. PELTON. 2002. Genetic relatedness and female spatial organization in a solitary carnivore, the raccoon, *Procyon lotor*. *Molecular Ecology* 11:1115-1124.