

## CURRICULUM VITAE

### Nishanta Rajakaruna

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#### Education:

Natural Sciences and Engineering Research Council of Canada Post-Doctoral Fellow  
(2003-2004) – Evolutionary ecology  
Department of Biological Sciences, Stanford University, USA

Ph.D. in Botany (2002) – Evolutionary ecology  
'Evolution in the *Lasthenia californica* complex (Asteraceae)'  
The University of British Columbia, Vancouver, BC, Canada

M.Sc. in Botany (1998) – Plant ecology  
The University of British Columbia, Vancouver, BC, Canada

B.A. in Human Ecology (1994)  
College of the Atlantic, Bar Harbor, ME, USA

#### Awards and Recognitions:

- Best Overall Botany-Related Oral Presentation, Northeast Natural History Conference X, Albany, NY; 2008
- NSERC Doctoral Prize 2004 Nominee, Dept. of Botany, University of British Columbia
- New Phytologist Trust Travel Grant, Plant Speciation Conference; 2003
- NSERC Post-Doctoral Fellowship, Natural Sciences and Engineering Research Council Canada; 2003-2005
- Faculty of Science Graduate Teaching Award Nominee, Dept. Botany, University of British Columbia; 2001-2002
- University Graduate Fellowships, University of British Columbia; 2001-2002, 1998-2000, 1995-1997
- Garden Club of Mount Desert Memorial and Tribute Fund Scholarship; 1993
- International Student Scholarship, College of the Atlantic; 1990-1994

### **Professional Experience:**

- Assistant Professor in Plant Biology, Department of Biological Sciences, San Jose State University, San Jose, CA, USA (August 2008-Current)
- Director of the Carl W. Sharsmith Herbarium, Department of Biological Sciences, San José State University, San José, CA, USA (Fall 2008-Current)
- Professor of Botany, College of the Atlantic, Bar Harbor, ME, USA (September 2004-June 2008)

### **Visiting Research/Teaching Appointments:**

Adjunct Faculty member in Botany, College of the Atlantic, Bar Harbor, ME, USA (September 2008-current)

Visiting Scientist, Laboratory of Dr. M. C. M. Iqbal, Institute of Fundamental Studies, Kandy, Sri Lanka (09/05-08/08)

### **Research Grants (Current, Pending, or Under Review):**

- California Environmental Protection Agency (2009)  
“Race, ethnicity, and exposure to heavy metals by urban gardeners.”  
Principal Investigator: O’Malley, R.; Research Assistant: J. Gorospe; Technical Advisors: N. Rajakaruna and M. McGowan. **\$19,343** (Under Review)

- The Stanley Smith Horticultural Trust, California Academy of Sciences (2009)  
“California endemics in an urban garden: developing an internship program in using California native plants in horticulture.”  
Principal Investigators: Lambrecht, S., Rajakaruna, N. and J. Cross. **\$19,966** (Under Review)

- National Science Foundation (2009)  
Inquiry-based plant biology curriculum for undergraduates and high school teachers.”  
Principal Investigators: Lambrecht, S. and N. Rajakaruna. **\$106,000** (Under Review)

- National Science Foundation (2009)  
Research grant submitted by the Consortium of California Herbaria titled: “Collaborative Research: Harnessing the power of herbaria to understand the changing flora of California: A biodiversity hotspot in peril”  
Principal Investigator for San José State University: N. Rajakaruna. **\$55,490** (Under Review)

- National Science Foundation (2009)

Research to be conducted with undergraduate students: "Is postfire recruitment of chaparral shrubs constrained by local adaptation to soils (serpentine vs sandstone) or microclimates (north vs south slopes)?"

Principal Investigator: Rajakaruna, N. **\$30,000**

- US Forest Service, Region 5 (2009)

Research to be conducted with 1-2 graduate and 2 undergraduate students: "Conservation Biology and Fire Ecology of Rare Serpentine Plants of Plumas National Forest, California." **\$404,800.**

Principle Investigators: Rajakaruna, N. and S. P. Harrison (University of California, Davis).

- Junior Faculty Career Development Grant, San José State University (2009)

Research to be conducted with a graduate and two undergraduate students: "Evolutionary ecology of *Lasthenia californica* (Asteraceae)." **\$1500**

- California State University Research Fund Grant (2008)

Research to be conducted with a graduate and two undergraduate students: "Impacts of multiple nutrient element enrichment on native and alien plant species in California's serpentine grasslands: Implications for better management of a threatened habitat." **\$7500**

- Maine Space Grant Consortium Research Fellowship (2006)

Research to be conducted with undergraduate students: "Geobotany of Maine: exploring plant-soil relations on extreme geodaphic habitats." **\$5000**

- Maine Space Grant Consortium Research Fellowship (2006)

Grant to conduct a 2-day workshop on plants that grow on heavy metal-rich soils. **\$2500**

- Maine Space Grant Consortium Research Fellowship (2006)

Research to be conducted with Tanner Harris (Senior, College of the Atlantic) on "Screening for Metal Tolerance in Lichens and Higher Plants from Mine Spoil." **\$5000**

- National Park Service: LL Bean Acadia Research Fellowship (2006)

Grant to conduct research titled "Conservation Biology of Rare Plants of Acadia National Park: A proposal to conduct ecological and physiological studies to better inform rare plant monitoring and management protocols." **\$5000**

- National Park Service (2006)

Grant to conduct research titled "Assessment of natural resources and watershed conditions in and adjacent to Acadia National Park." **\$49,987**

Principal Investigators: P. Vaux (U of Maine), S. Nelson (U of Maine), N. Rajakaruna (College of the Atlantic), J. Peckenhem (U of Maine), K. Bell (U of Maine), G. Mittlehauser (Humboldt Field Research Institute), B. Kopp (USGS)

- Maine Space Grant Consortium EPSCoR Collaborate Seed Grant Program (2005)  
Grant to conduct research titled “Extremophile Botany: Evolutionary and applied ecology of plants on heavy metal-rich, extreme soils of Hancock County, Maine.” **\$17,000**
- Maine Sea Grant Program Development Fund (2005)  
Grant to conduct research titled “Metalliferous Plants of the Callahan Mine: Plant Diversity, Heavy Metal Tolerance, and Potential for Phytoremediation.” **\$5600**
- Maine Space Grant Consortium Research Fellowship (2005)  
Research to be conducted with Kathleen Tompkins (Freshman, College of the Atlantic) on the Physiology, Evolution and Applied Ecology of Plants on Metal-Rich Soils. **\$2500**
- Maine Space Grant Consortium Research Fellowship (2005)  
Research to be conducted with Andrew Thrall (Junior, College of the Atlantic) on Geobotanical Explorations on Metal-Rich Extreme Soils. **\$2500**
- National Science and Engineering Research Council (NSERC) Canada Post-Doctoral Research Fellowship (2003-2004)  
“Community assembly on serpentine chaparral in California.” **\$70,000**

### **Additional Teaching Experience:**

*Instructor:* Summer Courses for K-12 Teachers, College of the Atlantic, Bar Harbor, Maine. Course: Field Botany (July 13-26, 2008)

*Instructor:* Summer Courses for K-12 Teachers, College of the Atlantic, Bar Harbor, Maine. Course: Woody Plants of Mount Desert Island. (July 9-22, 2006)

*Instructor:* From Cell to System, a Collaborative Science Learning Initiative for 6-12 Teachers, College of the Atlantic, Bar Harbor, Maine. Workshop title: Plants on metal-rich soils. (August 23-25, 2005)

*Instructor:* Downeast Senior College, University College at Ellsworth. Course: Botanical Hikes, Trees in the Four Seasons. A field botany course aimed at teaching trees and shrubs of Maine to senior citizens. (2004-2005, twice a month)

*Teaching Assistant:* Departments of Botany & Soil Science, University of British Columbia, Canada. Courses: Seed Plant Taxonomy, Introduction to Vascular Plants, Plants and People, Introduction to Soil Science. Supervisors: Shona Ellis (Botany), Maja Krzic (Soil Science) 1996-2002; 15 hrs. per week

*Teaching Assistant in Geobotany:* Siskiyou Field Institute, Cave Junction, Oregon, USA. Supervisors: A. R. Kruckeberg (Univ. of Washington), R. G. Coleman (Stanford University). 06/99; 1 week, full-time

## Relevant Work Experience:

*Botanical Consultant:* Pottinger & Gaherty Environmental Consultants Ltd., Vancouver, Canada. Risk assessment study of copper mine tailings. 02/00-04/00; part-time

*Biodiversity Consultant:* Sinharaja Village Trust, Sinharaja Rainforest, Sri Lanka. Conservation and ecodevelopment. 12/98-04/99; full-time

*Research Assistant in Plant Eco-Physiology:* Department of Organismic and Evolutionary Biology, Harvard University, MA, USA. 94-95; full-time

*Botanist:* Acadia National Park, Bar Harbor, ME, USA. Updated field information on rare and endangered plants of Mount Desert Island. 06-08/93; full-time

*Assistant Field Coordinator:* Sinharaja Rainforest, Sri Lanka. Established a 25-hectare forest dynamics plot for the Center for Tropical Forest Science, Smithsonian Tropical Research Institute (STRI). 08/93-01/94; full-time

## Peer-Reviewed Publications:

Pope, N., T. B. Harris, and N. Rajakaruna. 2010. Vascular plants of adjacent serpentine and granite outcrops on the Deer Isles, Maine, USA (*Rhodora* 112; in press).

R. S. Boyd, Kruckeberg, A. R. and N. Rajakaruna. 2009. Biology of ultramafic rocks and soils: research goals for the future (*Northeastern Naturalist* 16; in press).

Rajakaruna, N., N. Pope, J. Perez-Orozco, and T. B. Harris. 2009. Ornithocoprophilous Plants of Mount Desert Rock, a Remote Bird-Nesting Island in the Gulf of Maine, USA (*Rhodora* 111; in press).

N. Rajakaruna and R. S. Boyd. 2009. Advances in serpentine geoecology: A retrospective. *Northeastern Naturalist* 16: 1-7.

Harris, T. B. and N. Rajakaruna. 2009. *Adiantum viridimontanum*, *Aspidotis densa*, *Minuartia marcescens*, and *Symphyotrichum rhiannon*: Additional Serpentine Endemics from Eastern North America. *Northeastern Naturalist* 16: 111-120.

Rajakaruna, N., T. B. Harris, and E. B. Alexander. 2009. Serpentine geoecology of eastern North America: a review. *Rhodora* 111: 21-108.

Briscoe, L. R. E., Harris, T. B., Dannenberg, E., Broussard, W., Olday, F. C., and N. Rajakaruna. 2009. Bryophytes of adjacent serpentine and granite outcrops on the Deer Isles, Maine, USA. *Rhodora* 111: 1-20.

- Harris, T. B., Olday, F. C., and N. Rajakaruna. 2007. Lichens of Pine Hill, a peridotite outcrop in eastern North America. *Rhodora* 109: 430-447.
- Bohm, B. A. and N. Rajakaruna. 2006. The *Lasthenia californica* story: It started with flavonoids. *Natural Product Communications* 11: 1013-1022.
- Rajakaruna, N., Tompkins, K. M., and P. G. Pavicevic. 2006. Phytoremediation: An affordable green technology for the clean-up of metal contaminated sites in Sri Lanka. *Ceylon Journal of Science* 35: 25-39.
- Rajakaruna, N. and A. J. M. Baker. 2004. Serpentine: A model habitat for botanical research in Sri Lanka. *Ceylon Journal of Science* 32: 1-19.
- Rajakaruna, N. 2004. The edaphic factor in the origin of species. *International Geology Review* 46: 471-478.
- Rajakaruna, N. 2003. Edaphic differentiation in *Lasthenia*: A model for studies in evolutionary ecology. *Madroño* 50: 34-40.
- Rajakaruna, N., Baldwin, B. G., Chan, R., Desrochers, A. M., Bohm, B. A., and J. Whitton. 2003. Edaphic races and phylogenetic taxa in the *Lasthenia californica* complex (Asteraceae: Heliantheae): An hypothesis of parallel evolution. *Molecular Ecology* 12: 1675-1679.
- Rajakaruna, N., Bradfield, G. E., Bohm, B. A., and J. Whitton. 2003. Adaptive differentiation in response to water stress by edaphic races of *Lasthenia californica* (Asteraceae). *International Journal of Plant Sciences* 164: 371-76.
- Rajakaruna, N., Siddiqi, M. Y., Whitton, J., Bohm, B. A., and A. D. M. Glass. 2003. Differential responses to  $\text{Na}^+/\text{K}^+$  and  $\text{Ca}^{2+}/\text{Mg}^{2+}$  in two edaphic races of the *Lasthenia californica* complex (Asteraceae): A case for parallel evolution of physiological traits. *New Phytologist* 157: 93-103.
- Rajakaruna, N. and B. A. Bohm. 2002. Serpentine and its vegetation: A preliminary study from Sri Lanka. *Journal of Applied Botany* 76: 20-28.
- Rajakaruna, N., Harris, C. S., and G.H.N. Towers. 2002. Antimicrobial activity of plants collected from serpentine outcrops in Sri Lanka. *Pharmaceutical Biology* 40: 235-244.
- Rajakaruna, N. and B.A. Bohm. 1999. The edaphic factor and patterns of variation in *Lasthenia californica* (Asteraceae). *American Journal of Botany* 86:1576-1596.
- Bernston, G.M, Rajakaruna, N., and F.A. Bazzaz. 1998. Growth and nitrogen uptake of an experimental community of annuals exposed to elevated atmospheric  $\text{CO}_2$ . *Global Change Biology* 4: 607-627.

## **Books and Book Chapters:**

N. Rajakaruna and S. P. Harrison. 2010. Lessons from serpentine about earth history, evolution, and ecology, and implications for conservation and management. In: Harrison, S. P. and N. Rajakaruna (Eds.). 2010. *Serpentine: A model for Evolution and Ecology*. University of California Press, Berkeley, CA, USA. In prep.

R. E. O'Dell and N. Rajakaruna. 2010. Intraspecific variation. In: Harrison, S. P. and N. Rajakaruna (Eds.). 2010. *Serpentine: A model for Evolution and Ecology*. University of California Press, Berkeley, CA, USA. In prep.

Harrison, S. P. and N. Rajakaruna (Eds.). 2010. *Serpentine: A model for Evolution and Ecology*. University of California Press, Berkeley, CA, USA. In prep.

Rajakaruna, N., and R. S. Boyd (Eds.). 2009. *Soil and Biota of Serpentine: A World View. Proceedings of the Sixth International Conference on Serpentine Ecology. Northeastern Naturalist* 16 (Special Issue 5).

Rajakaruna, N. and R.S. Boyd. 2008. The edaphic factor. Pp. 1201–1207, In S.E. Jorgensen and B. Fath (Eds.). *The Encyclopedia of Ecology*. Volume 2. Elsevier, Oxford, United Kingdom.

Vaux, P. D., Nelson, S. J., Rajakaruna, N. Mittelhauser, G., Bell, K., Kopp, B., Peckenham, J. and G. Longsworth. 2006. *Assessment of natural resources and watershed conditions in and adjacent to Acadia National Park*. Natural Resource Technical Report NPS/HTLN/NRTR—2006/001. National Park Service, Fort Collins, Colorado, USA.

Rajakaruna, N. and J. Whitton. 2004. Trends in the evolution of edaphic specialists with an example of parallel evolution in the *Lasthenia californica* complex. In: *Plant Adaptation: Molecular Biology and Ecology*, Q.C.B. Cronk, I.E.P. Taylor, R. Ree and J. Whitton (Eds), pp. 103-110, NRC Research Press, Ottawa, Ontario, Canada.

Whitton, J. and N. Rajakaruna. 2000. Plant biodiversity - an overview. In: S.L. Levin (Ed.). *Encyclopedia of Biodiversity*, pp. 621-630. Academic Press, San Diego, CA

## **Popular Journal Articles:**

Rajakaruna, N. 2009. Serpentinophiles from California and across the world gather in Maine to highlight recent research on soil-biota relations of serpentine outcrops *Fremontia* 37 (1): 21-24.

Woolhouse, S. and N. Rajakaruna. 2009. The SJSU Botany Garden Makeover: Volunteers gather from around campus and San José to clean-up and restore SJSU's home for native plants. *The Scientist*, The College of Science Newsletter 13 (1): 2-3.

Woolhouse, S. and N. Rajakaruna. 2009. The SJSU Botany Garden Makeover: Volunteers gather to help restore a native plant garden. *The Blazing Star*, California Native Plant Society, Santa Clara Valley Chapter Newsletter, March-April 2009.

Rajakaruna, N. 2003. The common goldfields (*Lasthenia californica* s.lat.) of California: A species complex for the study of adaptive differentiation and parallel speciation. *Botanical Electronic News* 313.

Rajakaruna, N. 2000. Goldfields in the world of serpentine. *Botanical Electronic News* 245.

Rajakaruna, N. 1994. Dream come true. Sri Lankan returns to Sinharaja to coordinate plot work. *Inside CTFS*, Fall.

### **Invited Talks:**

#### **2009**

Plant reproduction and development. Two guest lectures in Biology 96A (Foundations of Biodiversity), San José State University, San José, CA, USA

Plant adaptations to land. Guest Lecture in Biology 96A (Foundations of Biodiversity), San José State University, San José, CA, USA

Plants with mettle: Lives of metallophytes. Lecture for San José State University Alumni Association's Classes without Quizzes Seminar Sessions. San José State University, San José, CA, USA

Edaphic differentiation in the *Lasthenia californica* (Asteraceae) complex: a model for the study of parallel speciation. Guest Lecture in Biology 218 (Evolution), San José State University, San José, CA, USA

Edaphic differentiation in California's flora: Case Studies. Seminar Series, Jasper Ridge Biological Preserve, Stanford University, Stanford, CA, USA

Adaptation below-ground: Key to plant diversity in California. Department of Biological Sciences, Graduate Seminar Series, San José State University, San José, CA, USA

Edaphic differentiation: species to communities. Department of Ecology and Evolutionary Biology. University of California, Santa Cruz, CA, USA

#### **2008**

The Plant-Soil Relationship: Ecology, Evolution, and Applied Ecology. Plant Biology (Bio 1) Guest Lecture. San José State University, San José, CA, USA

Edaphic Islands of California: Model settings for the study of plant ecology and evolution. California Native Plant Society, Shoup Garden House, Los Altos, CA, USA

The edaphic factor in plant diversity: species to communities. Department of Biological Sciences, San José State University, San José, CA, USA

Plant ecology of serpentine soils of North America. Humboldt Field Research Institute, Steuben, ME, USA

### **2007**

Botanizing on kooky soils: encounters with plants with mettle. Human Ecology Forum, College of the Atlantic, Bar Harbor, ME, USA

### **2006**

Plants on extreme soils: models for studies in evolutionary and applied ecology. Department of Biology Seminar Series, Colby College, ME, USA

### **2005**

Plant-soil relations in the *Lasthenia californica* complex (Asteraceae): a model for studies in evolutionary ecology. Department of Biological Sciences Seminar Series, Auburn University, Auburn, AL, USA

Plants on extreme soils: evolution to remediation. Humboldt Field Research Institute, Steuben, ME, USA

Ecology of metal hyperaccumulation and the emerging field of phytoremediation. Postgraduate Institute of Science, Department of Botany, The University of Peradeniya, Sri Lanka

Plants on Extreme Soils: A Model for Studies in Plant Evolution. Department of Botany, The University of Peradeniya, Sri Lanka

From Cell to System, a Collaborative Science Learning Initiative for K-6 Teachers. Topic: Plants on Extreme Soils: A model for research from cell to ecosystem. College of the Atlantic, Bar Harbor, ME, USA

Parallel Speciation in *Lasthenia californica* (Asteraceae). The Department of Biological Sciences Seminar Series. University of Maine, Orono, ME, USA

## 2004

Edaphic races in the *Lasthenia californica* complex (Asteraceae): A case for parallel speciation. California Botanical Society Lecture Series. University of California, Berkeley, CA, USA

Plant Diversity: Speciation to Conservation. Keene State College, Keene, NH, USA

Edaphic differentiation in the *Lasthenia californica* complex (Asteraceae): A model for the study of adaptive evolution and parallel speciation. Ecology and Evolution Lunch Bunch Seminar Series. University of California, Riverside, CA, USA

Plant Diversity: Speciation to Conservation. College of the Atlantic, Bar Harbor, ME, USA

## 2003

Edaphic differentiation in the *Lasthenia californica* complex (Asteraceae): A model for the study of adaptive evolution and parallel speciation. The Department of Biological Sciences Seminar Series, University of Southern Mississippi, MS, USA

The edaphic factor in the origin of species. The Coleman Symposium “Serpentine and serpentinites: mineralogy, petrology, geochemistry, ecology, geophysics, and tectonics.” Stanford University, CA, USA

Edaphic differentiation in the *Lasthenia californica* complex (Asteraceae): Building a case for parallel speciation. Ecology and Evolutionary Biology Seminar Series. University of California, Santa Cruz, CA, USA

Edaphic differentiation in the *Lasthenia californica* complex (Asteraceae): Building a case for parallel speciation. EcoEvo Seminar Series. Department of Biological Sciences, Stanford University, CA, USA

## 1997

A study on the possible edaphic influence on population differentiation of *Lasthenia californica*. Department of Soil Science, The University of British Columbia, Vancouver, BC, Canada

### **Conference Presentations (presenter in bold):**

## 2009

**Davoodian, N.** and N. Rajakaruna. Arbuscular mycorrhizal colonization of St. John’s Wort (*Hypericum perforatum*) on adjacent serpentine and granite outcrops. Poster presented at Botany and Mycology 2009, Snowbird, Utah, July 25-29.

**Rajakaruna, N.** and N. Jenson. Endemism and rarity in California's flora: are most endemic and rare species edaphic specialists? Poster presented at California Native Plant Society 2009 Conservation Conference: Strategies and Solutions. Sacramento Convention Center and Sheraton Grand Hotel, Sacramento, CA, January 17-19.

**Fong, M. G.,** R. S. Boyd, and N. Rajakaruna. Are morphotypes of *Streptanthus polygaloides* (Brassicaceae) distinct genotypes worthy of taxonomic subdivision and conservation? Poster presented at California Native Plant Society 2009 Conservation Conference: Strategies and Solutions. Sacramento Convention Center and Sheraton Grand Hotel, Sacramento, CA, January 17-19.

## **2008**

**Rajakaruna, N.,** T. B. Harris, and E. B. Alexander. 2008. Serpentine Outcrops of Eastern North America: Model Habitats for Geocological Studies. Paper presented at Northeast Natural History Conference X, Empire State Plaza in Albany, NY, April 17 – 18

**Ciccotelli, B.** and N. Rajakaruna. 2008. A Study to Characterize the Flora of Vernal Pools, Acadia National Park. Poster presented at the Northeast Natural History Conference X, Empire State Plaza in Albany, NY, April 17 - 18

Rajakaruna, N., **T. B. Harris,** and E. B. Alexander. 2008. Geocology of serpentine in eastern North America: Critical information gaps and future directions. Paper presented at the Sixth International Conference on Serpentine Ecology, College of the Atlantic, Bar Harbor, ME, June 16 - 23

Davoodian, N., **N. Rajakaruna,** and D. D. Ackerly. 2008. Evolution of serpentine endemism in fire-prone habitats: a preliminary model from California's chaparral. Poster presented at the Sixth International Conference on Serpentine Ecology, College of the Atlantic, Bar Harbor, ME, June 16 - 23

**Briscoe, L. R.,** F. C. Olday, and N. Rajakaruna. 2008. A floristic survey of bryophytes on a peridotite and a granitic outcrop in Deer Isle, Maine, USA. Poster presented at the Sixth International Conference on Serpentine Ecology, College of the Atlantic, Bar Harbor, ME, June 16 - 23

**Harris, T. B.** and N. Rajakaruna. 2008. *Adiantum viridimontanum*, *Aspidotis densa*, and *Minuartia marcescens*, additional serpentine endemics from eastern North America? Poster presented at the Sixth International Conference on Serpentine Ecology, College of the Atlantic, Bar Harbor, ME, June 16 - 23

Pope, N. and **N. Rajakaruna.** 2008. Vascular plants of serpentine and granite in the Deer Isle complex, Maine, USA. Poster presented at the Sixth International Conference on Serpentine Ecology, College of the Atlantic, Bar Harbor, ME, June 16 - 23

## **2007**

**Harris, T. B.**, Dannenberg, E., Pope, N., Briscoe, L. Thrall, A., Olday, F. C., and N. Rajakaruna. 2007. Plant life on metal-enriched soils in Maine: involving undergraduate students in ecological research. Poster presented at Maine Space Grant Consortium Annual Meeting, The University of Southern Maine, Portland, ME, April 20

**Thrall, A.**, Pope, N., Dannenberg, E., Tompkins, K., Pavicevic, P., Harris, T. B. and N. Rajakaruna. 2007. Plant-Soil Relations on Serpentine Outcrops of Deer Isle, Maine in Northeastern United States. Poster presented at Maine Space Grant Consortium Annual Meeting, The University of Southern Maine, Portland, ME, April 20

## **2006**

**Rajakaruna, N.** and D. D. Ackerly. Understanding Community Assembly on Serpentine: A Study of Functional Traits Relating to Serpentine Tolerance. Paper presented at the V International Conference on Serpentine Ecology, Siena, Italy May 09-13

Harris, T. B., Olday, F. C., and **N. Rajakaruna**. Saxicolous and Terricolous Lichens of a peridotite outcrop in the Northeastern United States: A baseline study exploring the lichen-substrate relationship. Poster presented at the V International Conference on Serpentine Ecology, Siena, Italy May 09-13

Thrall, A., Pope, N., Dannenberg, E., Tompkins, K., Pavicevic, P., Harris, T. B. and **N. Rajakaruna**. Plant-Soil Relations on Serpentine Outcrops of Deer Isle, Maine in Northeastern United States. Poster presented at the V International Conference on Serpentine Ecology, Siena, Italy May 09-13

**Iqbal, M. C. M.**, Kulasekara, L., Rajakaruna, N. and S. S. Iqbal. Plant-Soil Relations of a Serpentine Site in the Southern Coast of Sri Lanka. Paper presented at the V International Conference on Serpentine Ecology, Siena, Italy May 09-13

**Harris, T. B.**, Olday, F. C., and N. Rajakaruna. Lichens of a Peridotite Outcrop in Eastern North America: An Investigation into the Lichen-Serpentine Relation. Paper presented at the Botany 2006 Meeting, Chico, California, USA July 28 - August 03

## **2003**

**Whitton, J.** and N. Rajakaruna. The ecology of plant speciation. Paper presented at the Plant Speciation Conference, Plant Canada Meeting, St. Xavier University, Antigonish, Nova Scotia, Canada June 26-28

**Rajakaruna, N.** and J. Whitton. Parallel Evolution in the *Lasthenia californica* complex (Asteraceae). Poster presented at the Plant Speciation Conference, Plant Canada Meeting, St. Xavier University, Antigonish, Nova Scotia, Canada. June 26-28

Rajakaruna, N. Edaphic differentiation in *Lasthenia* (Asteraceae): A model for the study of parallel speciation. Paper presented at the Fourth International Conference on Serpentine Ecology, Jardin Botanico Nacional, Havana, Cuba. April 21-26

Rajakaruna, N. Serpentine plants of Sri Lanka: A preliminary study. Poster presented at the Fourth International Conference on Serpentine Ecology, Jardin Botanico Nacional, Havana, Cuba. April 21-26

Rajakaruna, N. Edaphic differentiation in the *Lasthenia californica* complex (Asteraceae: Heliantheae): a case for parallel speciation. Paper presented at the California Botanical Society Graduate Student Meeting, University of California, San Diego, CA. February 15

## **2002**

**Rajakaruna, N.** and J. Whitton. Building a case for the parallel evolution of edaphic races in the *Lasthenia californica* complex (Asteraceae:Heliantheae). Paper presented at the symposium on Molecular Genetics and Ecology of Plant Adaptation, Botanical Garden and Centre for Plant Research, University of British Columbia, Canada. December 11-13

**Whitton, J.** and N. Rajakaruna. Adaptation Underground: Incorporating edaphic influences in plant evolutionary studies. Paper presented at the symposium on Molecular Genetics and Ecology of Plant Adaptation, Botanical Garden and Centre for Plant Research, University of British Columbia, Canada. December 11-13

Rajakaruna, N. Edaphic differentiation in *Lasthenia*: Building a case for the parallel evolution of edaphic races in the *L. californica* complex. Talk presented in the Department of Botany Seminar Series, University of British Columbia. November 05

**Whitton, J.** and N. Rajakaruna. Adaptive divergence in response to water stress in *Lasthenia californica* (Asteraceae). Poster presented at the Annual Meeting of The Society for the Study of Evolution. Urbana-Champaign, IL, USA. June 28-July 02

## **1999**

**Rajakaruna, N.** and B. A. Bohm. The edaphic factor and patterns of variation in *Lasthenia californica* (Asteraceae). Paper presented at the Third International Conference on Serpentine Ecology. Kruger National Park, South Africa. March 22-28

## **1998**

Rajakaruna, N. Are edaphic factors influencing incipient speciation in *Lasthenia californica* (Asteraceae)? Paper presented at the Annual Meeting of The Society for the Study of Evolution. Vancouver, B.C., Canada. June 20-24

## 1997

Rajakaruna, N. Getting the dirt on *Lasthenia*. Presentation at the Department of Botany Seminar Series, University of British Columbia

### **Relevant Professional Services:**

#### **a. Manuscripts Reviewed (2004-Current):**

Areas: plant-soil relations, evolutionary ecology

*American Journal of Botany* (1 paper); *Annals of Botany* (8 papers); *International Journal of Plant Sciences* (1 paper); *Madrono: A West American Journal of Botany* (1 paper); *New Phytologist* (3 papers); *Journal of Ecology* (1 paper); *Ecology* (1 paper); *Annual Review of Ecology, Evolution, Systematics* (1 paper); *Oecologia* (1 paper); *Molecular Ecology* (1 paper); *Functional Ecology* (1 paper); *Belgian Journal of Botany* (1 paper); *Environmental Pollution* (1 paper); *Evolutionary Ecology* (1 paper); *Fresenius Environmental Bulletin* (1 paper); *Plant Ecology* (1 paper); *Northeastern Naturalist* (3 papers); *Estuaries and Coasts* (1 paper); *Biological Journal of the Linnean Society* (2 papers); *The Journal of the Torrey Botanical Society* (1 paper); *Ceylon Journal of Science (Biological Sciences)* (1 paper)

#### **b. Grants/Research Reviewed (2004-Current):**

United States Civilian Research and Development Foundation: Cooperative Grants Program. Area: plant-soil relations

United States Civilian Research and Development Foundation: Cooperative Grants Program. Area: phytoremediation

National Science Foundation. Area: Plant evolutionary ecology (3 proposals)

National Research Foundation, International Science Cooperation Grants, South Africa. Area: plant-soil relations

National Research Foundation, South Africa. Area: Plant-soil-insect relations

North-West University, Potchefstroom Campus, South Africa. Area: Plant Ecology

c. Other (2004-Current):

- Faculty Member, Sustainable Campus Environment and Food Systems Coalition (SCEFS), San José State University, CA, USA
- Advisory Board, Veggielution Urban Farming Project, San José, CA, USA ([www.veggielution.org](http://www.veggielution.org))
- Recording Secretary, California Botanical Society, Berkeley, CA (2009-2012)
- Organizer and student intern supervisor, Department of Biological Science, Botany Garden Restoration Project, San José State University, San José, CA, USA (Dec 2008-)
- Chief-Organizer, 6th International Conference on Serpentine Ecology, Bar Harbor, Maine, USA, June 16-23 2008
- Organizer and Moderator, Plant Ecology/Geobotany Session, Northeast Natural History Conference X, New York State Museum, Albany, New York, USA, April 17-18 2008
- Member of the Scientific Committee for the 5th International Conference on Serpentine Ecology, Siena, Italy, May 09-13 2006
- Member of Technical Assistance Grant (TAG) Steering Committee to facilitate community participation in decision making regarding the Callahan Mine Superfund Site, Brooksville, Maine
- Conduct workshops on rainforest ecology, bog ecology, and edible botany for high school students at Mount Desert Island High School, Bar Harbor, Maine
- External Examiner, Ph.D. Dissertation on Phytoremediation: University of the Punjab, Lahore, Pakistan

**Professional Memberships (1998-Current):**

New England Botanical Society (current); California Botanical Society (current); California Native Plant Society (current); American Society of Plant Taxonomists; Botanical Society of America; Pacific Regional Society of Soil Science; Canadian Botanical Association; Canadian Society of Soil Science