

CATHERINE L. CARDELÚS, PH.D.

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Department of Biology
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CURRENT POSITION

- 2019-2020 Gretchen Hoadley Burke Endowed Chair in Regional Studies, Colgate University
2014-Present Associate Professor of Biology & Environmental Studies, Colgate University,
Hamilton, NY
2015-2016 Visiting Professor, University of Wollongong, Australia
2008-2014 Assistant Professor of Biology, Colgate University, Hamilton NY
2013-2016 Adjunct Assistant Professor, Clemson University, Clemson SC

EDUCATION

- 2002 Ph.D. Department of Ecology & Evolutionary Biology, University of
Connecticut, Storrs, CT. Ph.D.
Thesis: Distribution and abundance of vascular epiphytes in tropical wet forests:
a multiscale approach. (Advisor: Dr. Robin L. Chazdon)
1996 B.A. Barnard College, New York, N.Y. Biology w/ honors & Ancient
Greek Language (Cum Laude) (Advisor: Dr. Helen Young)

**PUBLICATIONS (*INDICATES UNDERGRADUATE STUDENT)
PUBLISHED WORKS & IN REVIEW**

2019

- Cardelús, C.L., C.L. Woods, A. Bitew Mekonnen, S. Dexter*, P. Scull, B. Tsegay Abraha. (2019).
Disturbance impacts the integrity of sacred church forests, Ethiopia. *PlosONE*. 14, 3:
e0212430. <https://doi.org/10.1371/journal.pone.0212430>

2018

- Woods, C.L., S.J. DeWalt, C.L. Cardelús, K.E. Harms, J.B. Yavitt, S.J. Wright. (2018).
Fertilization influences the nutrient acquisition strategy of a nomadic vine in a lowland
tropical forest understory. *Plant and Soil*. 431: 389-399.
<https://doi.org/10.1007/s11104-018-3772-9>.

- Tsegay, Berhanu Abraha, A.T. Tsadik Weldeyes, C.L. Cardelús. Traditional use of
botanicals in reducing post harvest loss at crop stacking stage in Ethiopia: A case
of Farta district. *Indian Journal of Traditional Knowledge*. 17, 3: 534-541.

2017

- Cardelús, C.L., P. Scull, A. Wassie, C.L. Woods, P. Klepeis, E. Kent, & I. Orlowska. (2017).
Persistence of sacred forests in northern Ethiopia. *Biotropica*. 49, 5: 725-733.
<https://doi.org/10.1111/btp.12431>.
- Woods, C.L., C.L. Cardelús, P. Scull, A. Wassie, M. Baez*, P. Klepeis. (2017). Stone walls and
sacred forest conservation in Ethiopia. *Biological Conservation*. 26 209-221.
<https://doi.org/10.1007/s10531-016-1239-y>
- Scull, P. C.L. Cardelús, P. Klepeis, C.L. Woods, A. Frankl, J. Nyssen. (2017). The resilience of
Ethiopian church forests evidenced from a diachronic analysis using 1930's aerial

photographs. *Land Degradation and Development*. 28: 450-458.
<https://doi.org/10.1002/ldr.2633>

2016

Klepeis, P., I. Orłowska, E. Kent, C.L. Cardelús, P. Scull, A. Wassie & C.L. Woods. (2016). Ethiopia church forests: a hybrid model of protection. *Human Ecology*. 44: 715-730.
<https://doi.org/10.1007/s10745-016-9868-z>

2015

Woods, C.L., S.J. Dewalt, & C.L. Cardelús. (2015). Microhabitat associations of vascular epiphytes in a wet tropical forest canopy. *Journal of Ecology*. 103: 421-430.
<https://doi.org/10.1111/1365-2745.12357>

2014

Oberbillig, D., Randle, D.C., Middendorf, G., & C.L. Cardelús. (2014) Outdoor Learning in Formal Ecological Education – Looking to the Future. *Frontiers in Ecology and the Environment* 27: 419-420. <https://doi.org/10.1890/1540-9295-12.7.419>

2013

Cardelús, C.L., & G. Middendorf. (2013) Ecological literacy: the educational foundation for informed public decision making. *Frontiers in Ecology & the Environment* 11: 330-331.
<https://doi.org/10.1890/1540-9295-11.6.330>

Cardelús, C.L., M. Baimas-George*, M.D. Lowman, & A. Wassie Eshete. (2013). Carbon Sequestration in Ethiopia. Edited volume: *Treetops at Risk: Challenges of Global Canopy Ecology and Conservation*. <https://doi.org/10.1007/978-1-4614-7161-5>

McCay, T.S., C. Cardelús, & M. Neatrour. (2013). Rate of litter decay and litter macroinvertebrates in limed and unlimed forests of the Adirondack Mountains, USA. *Forest Ecology and Management* 304:254-260.
<https://doi.org/10.1016/j.foreco.2013.05.010>

Cardelús, C.L., P. Scull, J., M. Baimas-George*, M.D. Lowman, & A. Wassie Eshete. (2013). A preliminary assessment of Ethiopian sacred groves at the landscape and ecosystem scales. *Diversity* 5 (2): 320-334. <https://doi.org/10.3390/d5020320>

2012

Watkins, J.E. Jr. & C.L. Cardelús. (2012). Ferns in an angiosperm world: cretaceous radiation into the epiphytic niche and diversification on the forest floor. *International Journal of Plant Sciences* 173, 6: 695-710. <https://doi.org/10.1086/665974>

Beck, C., K. Klemow, J. Paulson, A. Bernstein, M. Lam, G. Middendorf, J. Reynolds, K. Belanger, C. Cardelús, C.Cid. (2012). Add Ecology to the Pre-Medical Curriculum. *Science* 335: 1301. <https://doi.org/10.1126/science.335.6074.1301-a>

Cardelús, C.L. (2012). Surveying Epiphytes in Forest Canopies. *In Methods in Forest Canopy Research*. Eds. M.D. Lowman & T. Schowalter. University of California Press.

Cardelús, C.L., M. Lowman, & A. Wassie Eshete. (2012). Uniting Church and Science for Conservation. *Science* 335: 916-917. <https://doi.org/10.1126/science.335.6071.915>

2011

Laurance, W.F., D.C. Useche, L.P. Shoo, S.K. Herzog, M. Kessler, F. Escobar, G. Brehm, J.C. Axmacher, I. C. Chen, L.A. Gámez, P. Hietz, K. Fiedler, T. Pyrcz, J. Wolf, C.L. Merkord, C.L. Cardelús, A.R. Marshall, C. Ah-Ping, G.H. Aplet, M. del Coro Armizmendi, W. J. Baker, J. Barone, C.A. Bruhl, R.W. Bussmann, D. Cicuzza, G. Eilu, M.E. Favila, A. Hemp, C. Hemp, J. Homeier, R.B. Huey, J. Hurtado, J. Jankowski, G. Kattán, J. Kluge, T. Kromer, D. Lees, M. Lehnert, J.T. Longino, J. Lovett, P.H. Martin B.D. Patterson, R.G. Pearson, K.S. H. Peh, B. Richardson, M. Richardson, M. Samway,

F. Senbeta, T.B. Smith, T. Utteridge, J.E. Watkins, Jr., R. Wilson, S.E. Williams, & C. Thomas. (2011). Global warming and the vulnerability of tropical biota. *Biological Conservation* 144: 548-557. <https://doi.org/10.1016/j.biocon.2010.10.010>

2010

Cardelús, C.L. & M.C. Mack. (2010). The nutrient status of epiphytic ferns, orchids and bromeliads and their host tree along an elevation gradient, Costa Rica. *Plant Ecology* 207 (1): 25-37. <https://doi.org/10.1007/s11258-009-9651-y>

Cardelús, C.L. (2010). Litter decomposition in the canopy and on the forest floor of three tree species in a tropical rainforest, Costa Rica. *Biotropica* 42 (3): 300-308. <https://doi.org/10.1111/j.1744-7429.2009.00590.x>

2009

Watkins, Jr. & C.L. Cardelús, C.L. (2009). Habitat differentiation of ferns in a lowland tropical rainforest. *American Fern Journal* 99 (3): 162-175. <https://doi.org/10.1640/0002-8444-99.3.162>

Cardelús, C.L., M.C. Mack, C.L. Woods, J. DeMarco & K. Treseder. (2009). Nutrient cycling in canopy and forest floor soils in a lowland tropical wet forest, Costa Rica. *Plant and Soil* 318 (1): 47-61. <https://doi.org/10.1007/s11104-008-9816-9>

2008

Colwell, R.K., G. Brehm, C.L. Cardelús, A.C. Gilman & J.T. Longino (2008). Global warming, elevational range shifts, and lowland biotic attrition in the wet tropics. *Science* 258-261. <http://viceroy.eeb.uconn.edu/ColwellEtAlScience.htm>; <https://doi.org/10.1126/science.1162547>

Watkins, Jr., J.E., C.L. Cardelús & M.C. Mack (2008). Ants mediate nitrogen relations of an epiphytic fern. *New Phytologist* 180 (1): 5-8. <https://doi.org/10.1111/j.1469-8137.2008.02606.x>

2007

Robertson, J.M., C.L. Cardelús, and M.I. Williams (2007). Arboreal oviposition site in the fossorial snake, *Enulius sclateri*. *Herpetological Review* 38(4): 466-467.

Watkins, Jr. J.E., P. Rundel, & C.L. Cardelús. (2007) The influence of plant life form on carbon and nitrogen relationships in tropical rainforest ferns. *Oecologia* 153 (2): 225-232. <https://doi.org/10.1007/s00442-007-0723-1>

Cardelús, C.L. (2007). Vascular epiphyte communities in the inner-crown of *Hieronima alchorneoides* and *Lecythis ampla* at La Selva Biological Station, Costa Rica. *Biotropica* 39 (2): 171-176. <https://doi.org/10.1111/j.1744-7429.2006.00253.x>

2006

Watkins Jr., C.L. Cardelús, R.C. Colwell, & R. Moran. (2006). Species richness and distribution of ferns along an elevational gradient in Costa Rica. *American Journal of Botany* 93 (1) 73-83. <https://doi.org/10.3732/ajb.93.1.73>

Cardelús, C.L., R.C. Colwell, J.E. Watkins, Jr. (2006). Vascular epiphyte distribution patterns: explaining the mid-elevation richness peak. *Journal of Ecology* 94 (1): 144-146. <https://doi.org/10.1111/j.1365-2745.2005.01052.x>

2005

Cardelús, C.L. & R.L. Chazdon. (2005) Inner-crown microenvironments of two emergent tree species in a lowland wet forest. *Biotropica* 37: 238-244. <https://doi.org/10.1111/j.1744-7429.2005.00032.x>

B. WORKS IN REVIEW

Cardelús, C.L., A. Bitew Mekonnen*, K.H. Jensen*, A.M., C.L. Woods, M.C. Baez*, M. Montufar*, K. Bazany*, B.A. Tsegay, P.R. Scull, W. Peck. (*in prep.*). Soil nutrient dynamics in sacred church forest fragments in northern Ethiopia. *Forest Ecology & Management*

Baez*, M., M. James*, K. Hankowsky*, I. Helfant, P. Scull, C.L. Cardelús. (*in review*).
Development, Implementation and Maintenance of a Deer Management Program in
Hamilton, New York. Wildlife Society Bulletin.

C. WORKS IN DRAFT FORM (* DENOTES STUDENT)

- Hanrahan, B.* , R.L. Fuller, and C.L. Cardelús. Does leaf calcium content affect leaf
decomposition, microbial respiration or macroinvertebrate community composition in
acid stressed streams?
- Woods, C.L., C.L. Cardelús, M.C. Baez*, E. Messing*, S. Reagan*. The influence of different
epiphyte taxa on the nutrient status of canopy humus: A fertilization experiment.
Oecologia.
- Vondracek, S.* , C. Spevacek*, K. Bascom*, M. James*, and C.L. Cardelús (*in prep.*) The effects
of mitigative liming on soil status and litter decomposition rates in the Adirondack State
Park, NY, 2012-2018. Target Journal: *Canadian Journal of Botany*.
- Woods, C.L., C.L. Cardelús, A. Bitew Mekonnen, M.C. Baez, B. Tsegay Abraha (*in prep.*)
Biodiversity of the last remaining forests in northern Ethiopia, protected sacred church
forests. *Invited paper for special issue in Forests on Conservation in Protected Areas*.

PROFESSIONAL RECOGNITION

GRANTS

- 2019-2021 The Upstate Institute, Colgate University: Team-Taught Course Development
Grant for Conservation Biology: Science & Practice. The intent of this team-
teaching RFP is to seek novel, innovative team-teaching proposals that
benefit both the faculty and students involved in the team-taught course.
- 2017-2019 The Upstate Institute & Sustainability Council, Colgate University: The Impact
of White-Tailed Deer on Colgate Forests: Richness. PI Cardelús; Co-PI's: Fuller,
McCay, Scull, Watkins, \$18,000.
- 2015-2018 NSF RUI-CNH Small Grant: Shadow Conservation: What are the Mechanisms of
Religious Management for Forest Persistence. PI Cardelús; Co-PI's: P. Scull, P.
Klepeis, E. Kent, A. Wassie Eshete, I. Orłowska, C. Woods. \$500,000
- 2014-2019 MRI: Acquisition of a TXRF spectrometer for Research in Chemistry, Biology,
and Geology. PI Rowlett; Co-PI's: C. Cardelús, R. Fuller, R. April. \$102,740
- 2014-2015 PI on Collaborative Research Proposal: Colgate Picker Interdisciplinary Science
Institute: What socio-ecological processes create strong stewardship of church
forests of northern Ethiopia. \$100,000. Co-PI's: P. Scull, P. Klepeis, E. Kent, A.
Wassie Eshete, I. Orłowska, C. Woods.
- 2014-2015 Sponsored Research Support Fund. Colgate Research Council, \$15,133
- 2014-2015 Research Council Major Grant, Colgate University: Experimental study of
nutrient addition and water exclusion on canopy ecosystem processes and
epiphyte community structure. \$7,825
- 2013-2014 PI on Collaborative Research Proposal: Colgate Picker Interdisciplinary Science
Institute: Does religious management supersede the socio-ecological drivers of
forest change in sacred groves of northern Ethiopia? \$90,000. Co-PI's: P. Scull,
P. Klepeis, E. Kent, A. Wassie Eshete, M. Lowman.
- 2013-2014 Research Council Major Grant, Colgate University: Experimental Study of
Nutrient Addition and Water Exclusion on Canopy Processes and Epiphyte
Community Structure. \$7500

- 2012-13 The Upstate Institute, Colgate University: Above and Belowground Responses to Acid Rain Mitigation in Adirondack State Park. \$5000
- 2010-13 NSF: Research Initiation Grant: Experimental Study of Canopy Nutrient Limitation on Ecosystem Processes and Community Structure. \$187,629
- 2010 Picker Interdisciplinary Science Institute Grant: Conservation of Ethiopian Church Forests. \$5,307.00 (<http://www.catherinecardelus.com/ethiopia/>)
- 2009 Faculty Research Council, \$1500 for travel to AAAS in Chicago to participate in a workshop: Career Boosters for Women and Minority Scientists.
- 2009 Faculty Development Council, \$500, for AAAS workshop.
- 2008-09 NSF Research Starter Grant: Exploring the nutrient dynamics of herbaceous taxa from temperate and tropical regions, \$50,000
- 2000-2001 NSF Doctoral Dissertation Improvement Grant, \$5000
- 2000 Organization for Tropical Studies Research Grant, \$3000
- 1998 Organization for Tropical Studies, Post-course Grant, \$600

FELLOWSHIPS

- 2006 Postdoctoral Research Fellowship, South East Alliance for Graduate Education and the Professoriate (SEAGEP-NSF), \$50,000
- 2003-2006 Minority Postdoctoral Research Fellowship, NSF, \$160,000
- 2003, 2007 Postdoctoral Research Fellowship, Mellon Foundation, \$48,000
- 2002 Dissertation Research Fellowship, University of Connecticut, \$3,000
- 2001 Multicultural Fellowship, University of Connecticut, \$7,500
- 1998 Multicultural Summer Fellowship, University of Connecticut, \$3000
- 1998-2001 NSF Graduate Student Research Fellowship, \$55,000
- 1998 NSF Minority Graduate Student Research Fellowship (Awarded)
- 1997-1998 Multicultural Fellowship, University of Connecticut, \$15,000
- 1996 The Grace Potter Rice Fellowship, Columbia University, \$4,000
- 1996 Summer Fellowship, Barnard College, \$500

AWARDS & HONORS

- 2010, 13, 19 Extended Study Funded for three-week trip to Costa Rica Associated with my course: Tropical Ecology, BIOL 332. ~\$22,000
(<http://www.catherinecardelus.com/extended-study-2010/>;
<http://www.catherinecardelus.com/blog/>)
- 2007 Travel Award, Ecological Society of America (ESA) and Women Evolving Biological Sciences (WEBS), \$700
- 2002 Bamford Award, University of Connecticut, \$500
- 2002 Travel Award, University of Connecticut, \$1,200
- 2000 Biodiversity Award, University of Connecticut, \$500
- 1999 Edgar T. Wherry Award, American Fern Society & BSA, \$500
- 1999 Pilot Study Award, Organization for Tropical Studies, \$1500
- 1998 Bamford Award: Summer, University of Connecticut, \$500
- 1996 Hermann Botanical Prize, Barnard College, \$500
- 1996 Cum Laude, Barnard College
- 1994-1996 Dean's List, Barnard College

PROFESSIONAL ACTIVITIES & SERVICE

- June 2018 Network for Conservation Educators and Practitioners (NCEP): Conservation

- Teaching and Learning Studio, Participant (American Museum of Natural History)
- 2013-present Certified Senior Ecologist, Ecological Society of America.
- 2013-present Cardelús lab is a USDA APHIS Inspected Facility Authorized to Receive Soil
https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/permits/regulated-organism-and-soil-permits/sa_soil/facilities
- May 2015 InterGroup Dialogue Facilitator Training, Colgate University
- Jan 2013 Managing Editor, *Springer Science Reviews* Journal.
- Sept. 2013 Launch of Ecoliteracy series in *Frontiers in Ecology and the Environment*. Co-Edited with Dr. George Middendorf and co-editors were responsible for proposal, solicitation, and editing of series. Papers published monthly through July 2014.
- June 2013 Co-organized symposium with Carrie Woods (Clemson University) at the annual Association for Tropical Biology Meeting in San Jose, Costa Rica titled: *Changing water and nutrient regimes in the rainforest canopy: the impact on the resident epiphytes*. (<http://atbc2013.org/programs/symposia/>)
- April 2012 Panelist: Energy, Community and Colgate. Colgate University
- Fall 2011 Review Panelist: NSF DEB
- 2007-2011 Member, Education and Human Resources Committee for the Ecological Society of America.
- Aug. 2010 Co-organized a special session titled: Using Best Science to Educate a Public Confused about Global Climate Change. Ecological Society of America, Annual Meeting. Pittsburgh, PA.
<http://eco.confex.com/eco/2010/techprogram/S5798.HTM>
- 2008-2012 External Ph.D. Committee Member for Carrie Woods, Clemson University.
- May 2009 Interviewed for Nature Magazine by Karen Kaplan for 'Unmasking the Imposter.' Nature 459, 468-469.
- April 2009 Interviewed for Science Magazine by Elisabeth Pain for 'Professional Service.' http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2009_04_24/caredit.a0900053
- Feb. 2009 Workshop Speaker: *Career Boosters for Women and Minority Scientists*. Association for the Advancement of Sciences Annual Meeting, Chicago.
- June 2008 Interviewed for Science Careers by Elisabeth Pain: A Self-Made Climber. http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2008_06_13/caredit.a0800088
- June 2008 Association for Tropical Biology & Conservation Symposium Co-chair with G. Zotz: *Diversity in the Canopy*.
http://www.atbc2008.org/program/symposium_zotz.htm
- Oct. 2007 NSF ADVANCE Workshop, *Women Evolving Biological Sciences* (WEBS). Selected participant. 2007, Pack Forest Conference Center, WA.
<http://www.engr.washington.edu/advance/webs/>
- Oct. 2007 Ecophylogenetics Workshop Participant, Harvard Forest, MA.
<http://www.cbs.umn.edu/cavender/ecophylogenetics.shtml>
- 2007 ESA Judge for student poster and oral presentations
- 2005 Ecoinformatics Workshop Participant, *The Science Environment for Ecological Knowledge (SEEK)*, University of New Mexico, NM.
<http://seek.ecoinformatics.org>

TEACHING EXPERIENCE

COLGATE UNIVERSITY—AN UNDERGRADUATE LIBERAL ARTS INSTITUTION

Biodiversity & Biogeography of Australia (Wollongong, Australia; 15 students): F2015
Conservation Biology (Biol330; 18 students): S2014, S2015, S2017, F2018
Community-Based Environmental Issues (ENST390; 15-18 students): F2013, F2016
Conservation Biology: Science & Practice with Laboratory (ENST389; 15-18 students)
Ecology, Evolution & Diversity (Biol 211/181; lecture: 70-90 students; lab: 18 students): Biology
for Majors: F2008, S2009, F2009, S2010, S2011, F2011, F2013, S2014, S2015,
F2016, S2017, F2017
Ecology with Laboratory: (Biol203; 7-16 students) F2014, S2018, F2018
Ecosystem Ecology with Laboratory (Biol 329; 12-15 students): F2008, S2011, F2012
Global Change & YOU! (CORESP 128, FSEM 124; 15-18 students): Non-majors Scientific
Perspectives Course: F2009, F2010, F2012, F2017
Tropical Ecology with three-week extended study to Costa Rica (Biol 332: 15 students):
S2010, S2013, F2019 (<http://www.catherinecardelus.com/costa-rica-extended-study/>)
Research Tutorial: Biodiversity, Community & Ecosystem Ecology (Biol 476; 6 students):
Independent Research Conducted by Seniors: S2009, F2010, F2011, F2012,
F2013, F2014, F2016, F2017, (F2018)

FACULTY-STUDENT RESEARCH

In the Cardelús lab, students can choose to work on one of three long-term research projects or develop their own research project.

ACADEMIC YEAR: RESEARCH CLASS, INDEPENDENT STUDIES AND HONORS RESEARCH

I have taught 51 students in independent research.

SUMMER RESEARCH

MENTORING

Funding was provided by: National Science Foundation Research Initiation Grant to Cardelús; a summer research fellowship from the Division of Natural Sciences (NASC) Colgate University; Colgate's Scholarships in Science, Technology, Engineering and Math Program (S-STEM); Colgate's Research Council Grant to Cardelús; or Brazilian Government Funding.

I have mentored 53 students in summer research across 4 projects:

Sarapiquí, Costa Rica: 2010-2014

Students conducted research on the influence of nutrient addition on canopy epiphyte community composition and ecosystem processes as part of a long-term research project in Costa Rica.

Students with asterisk did not travel to Costa Rica, but worked in the lab on campus.

Amhara, Ethiopia: 2015-2018

Our research team studies the conservation of church forests in northern Ethiopia. On each trip students accompany us and often conduct their senior research on the project.

New York, Adirondacks-Long term research site (2009-Present)

My lab studies the above and belowground impacts of liming on acid deposition affected forests.

New York, Hamilton-Establishment of Long-Term study on deer impacts on forests (2017-present)

NON-COLGATE TEACHING

- 2017 Organization for Tropical Studies Resource Faculty, Cueríci, Costa Rica
- 2016 Lectures given to those involved in our research on the conservation of church forests in the Amhara region of Ethiopia. We had two Masters, one PhD student, and three technicians working on the project in Ethiopia.
- 2004 Guest Lecturer for Introductory Botany, University of Florida
- Summer 2004 Mentor at La Selva Biological Station, Costa Rica: NSF Research Education for Undergraduates; student from University of Costa Rica; two undergraduate students from Evergreen State College; two high school students from New Jersey, USA.
- Organization for Tropical Studies Resource person for Tropical Plant Systematics
- 2000 Assisted Teacher Training Course, Costa Rica
- 1999 Seminar, University of Connecticut: Helped organize and teach a seminar which introduced primary literature to undergraduates
- 1998, 2002 Introductory Laboratory Instructor, University of Connecticut
- 1997 Methods in Ecology, University of Connecticut
- 1996 Introductory Laboratory Instructor, Barnard College
- 1995 Organic Chemistry Teaching Assistant, Barnard College

Non-Colgate Advising

- 2019-present Dissertation Committee, Mabel C. Baez, University of Florida
- 2015-present Co-Advisor, PhD student Amare Bitew, Bahir Dar University, Ethiopia
- 2010-2013 Dissertation Committee, Carrie Woods, Clemson University.

POSTERS & PRESENTATIONS

([†]DENOTES PRESENTER, *UNDERGRADUATE STUDENT)

A. ORAL TALKS/PUBLISHED ABSTRACTS PRESENTED AT PROFESSIONAL MEETINGS

- Cardelús[†], C.L., C.L. Woods, A. Bitew Mekonnen, S. Dexter*, P. Scull, B. Tsegay Abraha. Disturbance impacts the integrity of sacred church forests. (ATBC), Madagascar, July 2019.
- Cardelús[†], C.L., C.L. Woods, M. Baez*, P. Ryan*, L. McCulloch*, T. Wobby* & S. Young. Nutrient addition and water exclusion impacts on epiphytes in a lowland rainforest in Costa Rica. Association for Tropical Biology (ATBC), Honolulu HI. July 15, 2015.
- Woods[†], C.L., C.L. Cardelús, P. Ryan*, M. Baez*, L. McCulloch* & S. Young*. The physiological and morphological responses of vascular epiphytes to long-term nutrient addition and water exclusion in a lowland wet rainforest in Costa Rica. Association for Tropical Biology (ATBC), Honolulu HI. July 15, 2015.
- Klepeis[†], P., Cardelús, C., Kent, E., Orłowska, I., Scull, P., Wassie Eshete, A. and C. Woods. Ethiopian Church Forests as Sacred Groves and Common Pool Resources. Association of American Geographers (AAG) Annual Meeting. Chicago, Illinois. April 21-25.
- Scull[†], P., C. Cardelús, E. Kent, P. Klepeis, I. Orłowska, A. Wassie Eshete, & C. Woods. The persistence of Church Forests in South Gondar, Ethiopia. April 2014. Association of American Geographers (AAG). Annual Meeting. Chicago, Illinois. April 21-25.
- Cardelús[†], C.L. C. Woods, S. Reagan*, E. Messing* & K. Soule*. Impacts of increased nutrient deposition on epiphyte nutrient status and community structure. June 2013. Association for Tropical Biology (ATBC), San José, Costa Rica.

- McCay⁺, T.S., C.L. Cardelús, S. Vondracek*, & M. Neatrou. Litter decay and the role of macroinvertebrate decomposers in limed and unlimed forests of the Adirondack Mountains. Aug 2013. Ecological Society of America (ESA), Minneapolis, Minnesota.
- Scull⁺, P., C.L. Cardelús, & J. Hair*. An Inventory of Church Forests in the Debre Tabor region of northern Ethiopia. American Association of Geographers Annual Meeting. Los Angeles, CA. April 9th, 2013.
- Cardelús⁺, C.L.C. Woods, A. Pellegrini*, S. Reagan*, E. Messing*, & K. Soule*. Epiphyte community and ecosystem process shifts in response to nutrient addition. October 2012. 6th International Canopy Conference, Oaxaca Mexico.
- McCay⁺, T.S., M.A. Neatrou, C.L. Cardelús and M. Zimmerman*. Effects of watershed liming on a food web in an Adirondack forest. Aug. 2010. Oral Presentation: ESA, Pittsburgh, PA.
- Cardelús⁺, C.L. Epiphyte community assembly and climate change. Oct. 2009. Fifth International Canopy Conference. Bangalore, India
- Espeleta⁺, J.F., T. Taylor*, C.L. Cardelús, & J. S. Powers. Soil glomalin accumulation tracks landscape heterogeneity in tropical regions: From large-scale edaphic and vegetation variation to local effects via epiphytic contributions to the forest floor. Aug. 2009. ESA, Milwaukee, WI.
- Cardelús⁺, C.L. & M.C. Mack. Resource partitioning by vascular epiphytes in the rainforest canopy, Costa Rica. ESA, Milwaukee Wisconsin, Aug. 2008
- Cardelús⁺, C. & M.C. Mack. Resource partitioning by vascular epiphytes: a mechanism for species richness maintenance in the rainforest canopy. ATBC, Paramaribo, Suriname. June 2008.
- Cardelús⁺, C. & M.C. Mack. Litter decomposition in the canopy and forest floor of a wet tropical forest: consequences for nutrient cycling. Poster: ESA, San Jose, California. Aug. 2007
- Colwell⁺, R.K., G. Brehm, C.L. Cardelús, A.C. Gilman, & J.T. Longino. Modeling and predicting the effects of global warming on range shifts, biotic vacuums and mountaintop extinctions in the tropics. ATBC, Morelia, Mexico. July 2007.
- Cardelús⁺, C.L., M.C. Mack, E.G. Schuur, & J.E. Watkins, Jr. Nutrient status of vascular epiphytes on an elevation gradient in Costa Rica. ESA, Portland Oregon. Aug. 2004
- Cardelús⁺, C. L. Environmental determinants of vascular epiphytes distribution and abundance in tropical wet forests. ESA, Savannah Georgia. Aug. 2003
- Cardelús⁺, C. L. Canopy microclimate: a vascular epiphyte's perspective. Oral Presentation: Ecological Society of America, Tucson Arizona. Aug. 2002
- Cardelús⁺, C.L. Diversity of vascular epiphytes along an elevational gradient in Costa Rica. Third International Canopy Meeting, Cairns Australia. June 2002
- Cardelús⁺, C.L. Effects of microenvironment and tree characteristics on canopy vascular epiphyte distribution. Ecological Society of America, Snowbird Utah, August 2000.

B. POSTERS/PUBLISHED ABSTRACTS PRESENTED AT PROFESSIONAL MEETINGS

- Pellegrini*⁺, A. & C.L. Cardelús. Effects of temperature and nutrient levels on life history characteristics in a tank bromeliad *Vriesea cathyi*. Aug. 2010. Poster: ESA, Pittsburgh, PA.
- Cardelús⁺, C.L., Roy*, J., M. Lostumbo*, & T. S. McCay. Effects of Acid Deposition and Liming Mitigation on Belowground Processes. Aug. 2010. Poster: ESA, Pittsburgh, PA.
- Cardelús⁺, C.L., M.C. Mack, & K. Treseder. Nutrient availability and status of organic and mineral soils at a lowland rainforest site, Costa Rica. Poster: ESA, Memphis Tennessee. Aug. 2006

- Woods⁺, C., C.L. Cardelús, & M.C. Mack. *In situ* net nitrogen mineralization patterns of canopy humus and forest floor soil of three emergent tree species of a lowland tropical forest, Costa Rica. Poster: CONFOR, Duparquet, Quebec. Feb. 2006.
- Watkins⁺, J.E. Jr., & C.L. Cardelús, Habitat segregation in epiphytic and terrestrial ferns. Poster: XVI International Botanical Congress, St. Louis Missouri, July 1999. Winner of the Edgar T. Wherry Award for best poster.
- Cardelús⁺, C.L. & J.E. Watkins, Jr. Epiphytic fern stratification on the trunks of *Hieronima alchorneoides* (Euphorbiaceae) at the La Selva Biological Station, Costa Rica. Poster: International Canopy Conference, Sarasota Florida. November 1998.

INVITED SEMINARS/WORKSHOPS/PANELS

- 2018 University of Puget Sound, Department of Biology seminar series: *The trickle-down effects of losing a top carnivore in a rural community*.
- 2017
- A Case for Science: A Faculty Panel
 Profs. Beth Parks (Physics), Randy Fuller (Biology, ENST), Mike Loranty (Geography), Catherine Cardelús (Biology, ENST), Jason Keith (Chemistry)
 - *Teaching with the Future in Mind: How to Bring Sustainability into the Classroom*. Teaching Table. Facilitators: Catherine (Cat) Cardelús, Associate Professor of Biology and Environmental Studies; Ana Jimenez, Assistant Professor of Biology; Jason Kawall, Associate Professor of Philosophy and Environmental Studies; Director, Lampert Institute for Civic and Global Affairs; Director, Environmental Studies Program
 - Faculty Diversity Council, Mentoring Workshop: Improving classroom dynamics
 Drs. Catherine Cardelús (Biology, ENST) and Julia Martinez (Psychology)
- 2015
- Colgate University, Environmental Studies Seminar Series. *How will pollution impact the rainforest canopy?* March 2015
Are you teaching to the past or to the future? Teaching Table.
 - Facilitators: Drs. Daniel Bouk and Catherine Cardelús April 2015
- 2014 Invited Speaker at Workshop for Adirondack Research Consortium: What is the Greater Threat to Northern Forest Communities: Climate Change of White-tailed Deer? Speaker in: Community Experiences: Case Studies and Implementation Plans—*Community-based Environmental Issues, White-tailed Deer in Hamilton NY*.
- 2014
- Colgate University, Natural Sciences Seminar Series. *Ecological Status of Ethiopian Church Forests*.
 - Colgate University Environmental Studies Brown Bag Series: *Forest Conservation in Ethiopia: Socio-ecological processes and stewardship of Ethiopian Orthodox Church Forests*.
 - Joint presentation with collaborators. La Selva Biological Station, Costa Rica. *Conservation of Ethiopian Church Forests*. June 2014.
- 2012 Hamilton College, *The Canary in the Canopy*.
- 2010 NSF Research Education for Undergraduates Program, Costa Rica
Adventures of a Tropical Ecologist
- 2010 Life Long Learners, Colgate University: *Look Up! Biodiversity & Climate Change in the Rainforest Canopy*
- 2009 Tropical Biodiversity Seminar for Outdoor Education
- 2009 Panel Member: Graduate School in Biology, Molecular Biology & Ecology. Colgate University, Career Service. (Career Services)

- 2009 Panel Member: Patching the Leak in the Pipeline: Advice for Women Entering Careers in Science (Women's Studies)
- 2009 Kick-off talk for Darwin Week: Plants and Tropical Diversity.
- 2009 •University of North Carolina, Curriculum for the Environment & Ecology: *Up in the Rainforest: The Canopy & Global Change*
 •Colgate University, University-Wide: *Darwin, Plant, & Tropical Biodiversity*; Alfred University, Environmental Studies Program: *Look-up! The Impact of Global Warming on the Rainforest Canopy*
- 2008 Colgate University, Department of Biology: *The Community & Ecosystem Ecology of the Rainforest Canopy*
- 2007 Oklahoma State University, Department of Botany: *The Tropical Rainforest Canopy: Nutrient Cycling & Epiphyte Diversity*
 Harvard Forest: *The Tropical Rainforest Canopy: Nutrient Cycling & Epiphyte Diversity*
 Harvard University Herbarium: *Nutrient Cycling in Rainforest Canopies*
- 2003 University of Florida, Department of Botany: *Distribution & Abundance of Vascular Epiphytes in Tropical Wet Forests: a Multiscale Approach*
- 2002 University of Connecticut, Department of Botany: *Distribution & Abundance of Vascular Epiphytes in Tropical Wet Forests: a Multiscale Approach*
- 1999 La Selva Biological Station, Seminar Series: *Epiphyte Distribution & Abundance at La Selva Biological Station, Costa Rica*

MEMBERSHIPS

Association for Tropical Biology and Conservation (ATBC)
 American Association for the Advancement of Sciences (AAAS)
 American Association of University Professors (AAUP)
 Botanical Society of America (BSA)
 Ecological Society of America (ESA)
 International Canopy Network (ICAN)

AD-HOC REVIEWER

American Fern Journal, American Journal of Botany, Association for Women in Science, Austral Ecology, Biotropica, Conservation Biology, Ecological Society of America, Annual Meeting Symposia and Oral Presentations, Ecology, Folia Geobotanica, Forest Ecology & Management, Global Change Biology, Global Ecology and Biogeography, Journal of Biogeography, Journal of Ecology, Journal of Tropical Ecology, Murdoch Charitable Trust, National Science Foundation, Nature Scientific Reports, Plant Ecology, Selbyana, Soil Biology and Biochemistry; Tenure Review.

COLGATE UNIVERSITY-WIDE ACTIVITIES & SERVICE

- 2018-Present Member, Steering Committee of the Diversity, Equity and Inclusion Task Force
- 2017-Present Instructor, Beginning Yoga for Brown Commons
- 2018 Chair, Faculty Due Process and Oversight Committee
- 2017-2019 Member, Bicentennial Committee
- 2017-2018 Member, Advisory and Planning Committee
- 2017-2018 Chair, Faculty Affairs Committee
- 2016-2020 Member, Faculty Affairs Committee
- 2016-Present Chair, Sustainability Council
 Chair, Sustainability Curriculum Subcommittee
- 2016-2017 Member, Dean of the Faculty Search Committee

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| 2015-Present | Member, Steering Committee for Environmental Studies |
| 2014-Present | Faculty Diversity Council |
| 2015 | LGBTQ Program Review |
| 2015, Spring | Interim Director, Women's Studies Program |
| 2014-2015 | Chair, Sustainability Council |
| 2013-2015 | Safety Advisory Committee |
| 2013-2014 | Member, Sustainability Council |
| 2012-2015 | Udall Faculty Fellowship Committee |
| 2009-2015 | Women's Studies Advisory Board |
| 2010-2012 | Faculty advisor for the Natural History Club |
| 2009-2012 | Alana Affairs Committee Member |
| 2010 | Goldwater Faculty Fellowship Committee |
| Fall 2009 | Interim Faculty Liason for Field Hockey |
| July 2009 | Conducted two workshops in the field for Colgate's Summer Sports & Science Camp |
| 2008-Present | Search Committees across Departments and Programs: Biology, Women's Studies, Environmental Studies, Outdoor Education Program |

OUTREACH ACTIVITIES

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| 2014-Present | Town of Hamilton, Deer Management Task Force. |
| 2011-2013 | Lectures given in Tropical Ecology and Conservation Biology to 2 nd , 3 rd , and 8 th graders and worked with the agriculture teacher at Hamilton Central School on guest lectures for program. |
| Spring 2012 | Part of working group that drafted 'Generic Impact Statement on Industrial Wind Turbines in the Town of Madison.' |
| 2012 | Ecoliteracy program taught for the Chenango Afterschool Program in which a common garden was started and continued through the summer, a vermicomposting bin, and other activities geared toward connecting children to nature. |
| 2002-06 | Gave five lectures to grade schools in Florida & New York on Rainforest Ecology and Women in Science. |
| 2005 | Judge for two middle school science fairs in Gainesville, Fl. |
| 1999-2001 | La Flaminia, Costa Rica <ul style="list-style-type: none"> ○ Involved with Parent Teacher Association to raise money to improve school infrastructure. ○ Worked with large local landowners, and other residents, to increase awareness of the devastation caused by deforestation. ○ Organized local fundraisers to pay for the education of three young women in the community. ○ Organized transportation for local citizens to vote on a referendum establishing the Sarapiquí river a national monument. ○ Worked with and provided environmental literature and canopy access training for Costa Rican National park guards. ○ Provided free English classes to 15 local residents ages 5-65. |

LANGUAGES

Bilingual English/Spanish, Fluent Italian