# MARGARET DALZELL LOWMAN

# Global Arbornaut, Conservation Biologist, Educator/Mentor, Author

Sarasota Florida Citizenship: USA

Email: <a href="mailto:canopymeg@gmail.com">canopymeg@gmail.com</a>
Cell: (941)-266-0817
Websites: <a href="mailto:www.canopymeg.com">www.treefoundation.org</a>

Instagram and X: #canopymeg

## **EDUCATION**

2006	Aldo Leopold Leadership Fellowship Program
2004	Disney Leadership Institute for Biodiversity
2002	Tuck School of Business, Dartmouth College, Executive Management Certificate
1983	University of Sydney, Australia. Ph.D. Botany
1978	University of Aberdeen, Scotland. M.Sc. Ecology
1976	Williams College, MA. B.A. Biology, cum laude, minor in Environmental Studies

## **EMPLOYMENT**

2020-21	Visiting Professor, National University of Singapore, Geography/Biol Sci/Env Sciences
2020-22	Adjunct Professor, Arizona State University School of Sustainability; Elmira College
2000-on	Director, TREE Foundation (www.treefoundation.org) that focuses on local and global
	tree research, education, and exploration, with emphasis on getting kids into nature
2014 - 19	California Academy of Sciences, Lindsay Chair in Botany/Senior Scientist in Plant
	Conservation with oversight to strategies for global research/collections and
	sustainability leadership; inaugural Chief of Science and Sustainability, with oversight
	to ~100 research staff, stewardship of 45+ million collections, budget ~ \$ 7 mil, creating
	sustainable initiatives throughout all research programs, hiring diversity in STEM, and
	Director of Global Initiatives, serving as an external science voice for global
	partnerships including Amazon citizen science and Malaysian rain forest bioblitz
2010 -14	Director, Nature Research Center, NC Museum of Natural Sciences (including oversight
	to global initiatives and academic partnerships); and Research Professor, College of
	Sciences, NC State University; oversaw construction, staffing and programs for NRC.
2003 - 14	Science columnist, News & Observer, Charlotte Tribune, NC; Herald Tribune, FL
2003 - 10	Director of Environmental Initiatives, and Professor of Biology and Environmental
	Studies, New College of Florida, and Sarasota County Regional Government Science
	Outreach Partnership; started environmental studies academic program at NCF
1999 - 2003	Chief Executive Officer, Selby Botanical Gardens, FL and grew budget from \$2 mil
	to \$3.5 mil during my tenure
1992 - on	Adjunct Professorships at Williams College, Univ of Florida, Univ of South
	Florida (Tampa), New College of Florida, Ringling School of Art & Design, FL, Jimma
	University (Ethiopia), Bahir Dar University (Ethiopia), San Francisco State University
1992 - 99	Director of Research & Conservation and Jessie Cox Chair in Tropical Botany,
	Selby Botanical Gardens, FL
1989 - 92	Visiting Professor of Biology & Environmental Studies, Williams College, MA
1983 - 89	Co-manager, Ruby Hills Pastoral Company, Walcha NSW Australia
1978 - 89	Lecturer in Adult Education, Botany and Zoology, University of New England,
	Sydney University Australia

ACADEMIC	FELLOWSHIPS
2019-20	Visiting Professor, National University of Singapore
2018-22	Research Professor, Universiti Sains Malaysia, Penang; and Arizona State University
2018	Fellow, Rachel Carson Center, Ludwig Maximilian University, Munich Germany
2013	Fulbright Senior Specialist Scholar to Ethiopia
2011	Fulbright Senior Specialist Scholar to India
2010	Visiting Scholar, Oxford University, UK
1983 - 87	Australian Research Council Postdoctoral Fellowship
1983	Sydney University, Australian Museum Award for postgraduate research
1979 - 83	Sydney University, Australian Museum Award for postgraduate research  Sydney University Fellowship
1976 - 77	Duke University Fellowship
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<b>PROFESSIO</b>	NAL HONORS
2023	Chair, Heroes of the Planet leadership team for Voiijer APP
2023	Tallburg Foundation environmental leadership award
2023	The Explorers Medal, the Explorers Club NYC
2019-on	Science Advisor, Earthwatch Institute; Explorer and Travel Expert, National Geographic
2019	External Assessor for biology major programs, Universiti Sains Malaysia
2019	Faculty mentor at Oxford University summer conservation student workshops
2019	Appointed to Board of Advisors for Scientific American
2018	San Francisco Business Times "Woman of Influence" (3rd time); member of
	National Science Foundation Advisory Comm for Environmental Research & Education.
2018	Fellow at Rachel Carson Center, University of Munich, Germany
2017-22	Appointed Research Professor at Universiti Sains Malaysia, Penang
2016-20	Member of National Science Foundation Advisory Committee for International Science
	and Engineering; visiting professor at Bahir Dar University, Ethiopia
2015	Elected Fellow of California Academy of Sciences
2015	Honorary Doctorate in Science & commencement speaker, Elmira College
2014	Honorary Doctorate in Science & commencement speaker, Wilson College
2014	Roy Chapman Andrews Distinguished Explorer Award
2014	Selected as one of San Francisco's "50 Distinguished Women Business Leaders"
2014	Invited keynote speaker, EO Wilson Biodiversity Symposium, Alabama; bestowed title
	of "Her Highness" by EO Wilson (as Sylvia Earle is "Her Deepness")
2013	Rolex Foundation juror to select youth award finalists
2012	Rolex invited Forum speaker at Rolex Awards Ceremony, New Delhi India
2012	Appalachian State University, commencement speaker
2012	Invited to serve on White House Women and the Environment Summit
2010	Research Fellow, Environmental Change Institute, Oxford University, UK
2010	Dictor-Martin Civic Award, Year of Biodiversity Leadership, Sarasota
2009	ACE (Achievements in Canopy Ecology) international award, Bangalore, India
2009	Selected as Florida Trend Business Magazine "Icon" for February 2009
2009	Tampa FL Women's history month honoree for "conservation of the planet"
2008 - 13	Fulbright Board Senior Specialist Scholar status
2008 - on	Elected to Earthwatch Board of Directors
2008	Elected Fellow of Wings WorldQuest, honoring women in exploration
2007 - 09	Science Advisor for Climate Change to Florida CFO, Alex Sink
2007 - 09	Elected Vice President for Research and Education, The Explorers Club
2007	Florida Society of Botanical Artists - Gaia Award for Excellence
2007	Appointed to NEON Education Tiger Team (National Ecological Observatory Network)

2007	Mendel Medal for achievement in science & spirit, Villanova University
2006 - on	Advisory Board, Plants with Purpose (links deforestation to poverty & finds solutions)
2006 - 12	Elected Vice President for Education & Human Resources, Ecological Society of
	America (and re-elected)
2006	Aldo Leopold Leadership Fellow
2006	Lowell Thomas Medal for Biodiversity Exploration, The Explorers Club
2006	Nominated for Weizmann Women and Science Award
2005 - 11	Elected to the Board of Directors, The Explorers Club (and re-elected)
2005 - 08	<b>NEON senior design team</b> (co-wrote \$350 mil grant for ecological observatories)
2004	Chief Scientist, The Jason Project in Science Education w/Bob Ballard - Panama: Rain
	Forests at the Crossroads
2003	Disney Leadership Institute for Biodiversity (with World Wildlife Fund)
2003	Woman in Power Award, National Council of Jewish Women (NCJW)
2003	Certificate of Honor, Sarasota County Commission on the Status of Women
2003	Asteroid (10739) Lowman named by Carolyn Shoemaker, US Dept. of Interior
2002	Kilby Laureate medalist, honored for pioneering rainforest canopy science
2002	Ecological Society of America, Eugene P Odum Award for Excellence in Ecology
	Education
2001 - 04	Elected by Williams College alumni as Board of Trustees Tyng Administrator
2001	Florida Gubernatorial appointment to Board of Directors, New College of Florida
2001	AABGA Award for Program Excellence for creating two elevated canopy walkways, one
	at Selby Gardens and one at Myakka State Park
2000	Girls, Inc. Visionary Award for Public Science & Education Outreach
2000	Williams College Bicentennial Medal for achievements in tropical botany
2000	Phi Delta Gamma Educators' Award for book, Life in the Treetops
1999	Margaret Douglas Medal from National Garden Club of America for Conservation
	Education
1999	Chief Scientist, The Jason Project in Science Education w/Bob Ballard - Amazon, Peru
1999	Board of Scientific Advisors, Amazon Center for Education & Environmental Research
1998	Selection to Leadership Florida, Class XVI
1997	Elected Fellow of The Explorers Club
1995 - on	Board of Scientific Advisors, Intl. Center for Tropical Biology, University of Missouri
1994	Chief Scientist, The Jason Project in Science Education w/Bob Ballard - Belize
1994	Girl's Incorporated "She Knows Where She's Going" Award for mentoring girls in
	science
1993	Pew Scholar nominee in Conservation Biology
1992 - 99	Selby Gardens, appointed to The Jessie B. Cox Endowed Chair in Tropical Botany
1991 - 98	Education Board, Massachusetts Tropical Conservatory
1990 - 95	Board of Science Advisors, Earthwatch
1976	Williams College, Dwight Botanical Prize
1974	Williams College, Geology Summer Field Camp Scholarship
1972 - 76	Williams College, Dean's List

# **ADMINISTRATIVE and EDITORIAL ACTIVITIES**

Co-Editor, volume on Malaysian Biodiversity Survey, Penang Hill – USM Press.
 Leader of Malaysia Bio-Blitz, funding and organizing 117 scientists to survey a
 UNESCO world heritage rain forest site in Penang (65% women participants, first whole-forest survey including canopy and forest floor, first local-n-global collaborations

	for each taxon and over 1400 findings)
2014 - 16	Chair of 3 summits, California Academy of Sciences: Forest Summit, Eye on the
	Environment: Drones for Conservation, and Women in Science – fund-raising,
	program development, and student engagement
2014 - 16	Inaugural Chief of Science and Sustainability, California Academy of Sciences (duties
	included: increase staff diversity, create salary equity, update financial reporting, inspire
	teamwork, integrate research with other divisions, add sustainability to all research
	portfolios, and serve as editor California Academy of Sciences Proceedings)
2016	Committee for 7 <sup>th</sup> International Canopy Conference, London UK
2013	Co-editor, <u>Treetops at Risk</u> , edited volume from the 2009 Canopy Conference, India
2012	Co-chair (with Demetria Mondragon), 6 <sup>th</sup> Intl. Canopy Conference, Oaxaca Mexico
2012	National Science Foundation, PIRE (Programs for International Research and Education)
	review panel
2011	National Science Foundation, Macrobiology review panel
2011 - 14	Chair, Teen Advisory Board for NC Museum of Natural Sciences
2010 - 14	Founding Director, Nature Research Center, wing of NC Museum of Natural Sciences
	(fund-raise, oversee construction, and set up innovative programs for NC Museum, inclu-
	ding Academic partnerships from NC system for each museum laboratory)
2010	Chair, Informal Science Education panel (NSF); review panel, NSF Synthesis Centers
2009	Chair, Science Committee, The Explorers Club
2009	Co-chair (with Kamal Bawa), 5th International Canopy Conference, India
2007 - 09	Vice President for Research and Education, The Explorers Club
2006 - 12	Vice President Education & Diversity, Ecological Society of America (2 elected terms)
2005 - 09	Director of New College/Sarasota County government science partnership
2003 - 10	Inaugural Director of Environmental Initiatives, New College of Florida
2001 - 10	Founder of Science and Environment Council, Sarasota County (& Chair 2001-2003)
1998 - 2000	Finance Committee, Leadership Florida
1998	Co-chair (with Francis Hallé, France), 2 <sup>nd</sup> International Canopy Conference: Global
1005 00	Perspectives (with participants from 35 countries)
1995 - 98	Tropical studies initiative committee, European Science Foundation (ESF)
1994	Co-chair (with Francis Hallé, France), 1 <sup>st</sup> International Canopy Conference (with
1002 00	participants from 28 countries)
1993 - 09	Association for Tropical Biology & Conservation, Secretary-Treasurer
1992 - 99	Editor for Selbyana (botanical journal)
1989 - 92	Williams College, Center for Environmental Studies Faculty Committee
1987 - 89	Association for Tropical Biology, elected Councilor
1979 - 80	Sydney University, student representative to Board of Biological Sciences
1977 - 78	Duke University, Advisory Committee to Dean Duke University, Faculty Search Committee
1977 - 78	Duke University, Faculty Search Committee

Reviewer including Science, Oecologia, Biotropica, Austral Ecology, National Science Foundation, Selbyana, Phytologia, Ecological Monographs, Journal of Ecology, European Science Foundation, Austrian Science Foundation, Earthwatch, Biological Journal of the Linnean Society, Smithsonian Institution, Journal of Tropical Ecology, National Geographic, Conservation Biology, African Journal of Agriculture, Ecology, Frontiers in Ecology and the Environment, Universiti Sains Malaysia, and many academic book publishers and other journals.

### **BUSINESS EXPERIENCE**

2020-on Founded MISSION GREEN to fund canopy walkways in the highest biodiversity forests

- 2000-on Co-founder and CEO, TREE Foundation, including fund-raising, mission of tree research education and exploration, active local, national and global.
- 2014 16 Chief of Science & Sustainability, California Academy of Sciences, with ~\$7 mil annual budget and ~\$14 mil grants for research, exploration, collections, and staff, including:
  - Re-structured Institute for Biodiversity Science and Sustainability,
  - Created leadership team including new Director of Collections and CFO
  - Revised annual reviews to include peer-reviews,
  - Established revised and more efficient financial reporting,
  - Sought operational practices that led to increased effectiveness of research
  - Increased gender equity in both payroll and hiring practices
  - Infused "sustainability" into the culture of research activities
  - Created first Director of Collections position to oversee 46 mil collections
- 2010 13 Director, Nature Research Center, NC Museum of Natural Sciences, a \$65 million science research and education technology wing of the state museum. Oversaw construction, assisted with fund-raising, created programs, and hired a new team of scientists who combined cutting-edge research with innovative science communication. Science staff received \$11.7 million in grants during our first year and was the most visited public destination in North Carolina!
- 2008 Sustainability consultant to Tommy Hilfiger Foundation
- 2008 Chair, Mission/Vision committee, The Explorers Club (1<sup>st</sup> mission revision after 101 years)
- 2000 on Founder & Executive Director, TREE Foundation, a 501(c)(3) organization dedicated to tree research, exploration, and education (http://treefoundation.org)
- 1999 2003 CEO of Marie Selby Botanical Gardens, Sarasota, day-to-day operations of botanical garden including strategic planning, programs, fundraising and staffing, with highlights:
  - Budget up 25% over 4 years; membership up 46%
  - Budget deficit (of prior administration) moved into the black
  - Implemented ongoing training and professional development for staff
  - Initiated global partnerships including Sister Garden relationships w/ Jardín Botánico Lankester, Cartago Costa Rica; Fundación Jardín Botánico de Orinoco, Ciudad Bolívar Venezuela and Cienfuegos Botanical Garden, Cuba
  - Completed renovations to historic Mansion; new perimeter delineation; new events pavilion; additional parking spaces (all under-budget); property acquisitions to expand Gardens
  - Named one of America's Top Ten Botanical Gardens in 2003
  - Donor levels and annual appeals up over four-fold; first half-million-dollar gifts in the history of the Gardens; raised \$2.2 million for Capital Campaign, most by direct solicitation; over 900 volunteers/yr. whose hours represented > \$1.5 million value-added
  - Opened Center for Canopy Ecology; expanded research department to include gesneriads, canopy ecology and conservation; living collections expanded by 102%
- 1994 2010 Treasurer, Association for Tropical Biology: created annual budgets, initiated computerized accounting, and set up the Society's first endowment
- 1992 on Co-founder, Canopy Construction Associates, a company that constructs canopy walkways for research and education institutions worldwide; continued consultant on selection of canopy walkway sites from a biodiversity perspective (<a href="www.canopyconstruction.com">www.canopyconstruction.com</a>); now, part of Signature Research Company

- 1992 99 Director of Stark Research Center, Selby Gardens: oversaw administration, budget, grants, data collection, public relations, conferences, and outreach for eight staff and twenty-one volunteers; raised > \$ 2 million for botanical research
   1983 90 Managed family agricultural operation, "Ruby Hills" merino fine wool sheep and Poll Hereford stud cattle operation in outback Australia: budgeting, oversight to genetics and breeding, agricultural products, record-keeping, maintenance of extensive property,
- driven business
  1981 89
  Administered Earthwatch field expeditions in Australia, including budgets, purchasing, travel logistics, data analyses, and publications

shearing operations, bed-and-breakfast, and other aspects of a weather-related, market-

- 1977 78 Environmental Protection Agency, air pollution regulation division, Research Triangle
- 1972 76 Assistant, Payroll Office, Williams College (to fund college education)
- 1967 75 Science camp counselor and teacher, Burgundy Center for Wildlife Studies, WV

#### TEACHING EXPERIENCE

- 2020-2 Adjunct Professor, Elmira College "Sustainable Fashion" course for Tommy Hilfiger Fashion Business Institute
- Numerous Zoom lectures to middle schools about rain forest canopies and conservation Re-instituted Jason Learning program, leading a team of teachers/students in Malaysia Celebrated 23<sup>st</sup> summer of teaching citizen science field expedition on "tropical canopy
- ecology" in Amazonian Peru

  2011 14 **Professor of Science, North Carolina State Universit**y including citizen-science
- courses in tropical ecology; science communication training
- 2010-on Mentor for underserved girls at Meg Lowman Treetops Camp, rural NY each summer
- 2004 10 Director of Environmental Initiatives, New College of Florida
- 2004 07 Leader of New College Foundation natural history trips to Amazon, Galapagos, and Belize for fund-raising
- Florida Science Teachers Association leader of Panama rain forest workshop
- 2003 10 Professor of Biology and Environmental Studies, New College of Florida: Plant Ecology (Intro. and Advanced), Communities and Ecosystems, Environmental Issues senior tutorial, The Role of Women in Natural History, Science Outreach in Local Schools (SOS), Conservation Biology, The Ecology of Extreme Environments, Climate Change, Canopy Ecology, Science Education, Tropical Ecology; field courses to Antarctica, Belize, Galapagos, and Amazon
- 1998 2002 Instructor for Williams College Alumni expeditions to Australia and Peru
- Distance learning with Jason Project (virtual expeditions to Belize, Panama, Amazon) that reached millions of middle school students and their teachers
- 1994 University of South Florida, Biology Department Adjunct Conservation Biology
- 1993 96 New College of Florida, Biology & Environmental Studies Department Adjunct Conservation Biology, Environmental Botany, and Plant Ecology
- 1992 on Numerous lectures for schools, civic clubs, and institutions (addressed over 5 million students and citizens in year 2000 alone, in part with distance learning)
- 1992 University of Minnesota Conservation Biology (field course, Lake Itasca)
- 1989 92 **Williams College, Visiting Professor of Biology and Environmental Studies** -Tropical Rainforests: Politics, Economics, Biology; Communities and Ecosystems; Environmental Studies 101; International Environmental Policy (senior tutorial); Conservation Biology; Women as Natural History Writers (tutorial)
- 1986 Williams College, Biology Department Australian Ecosystems, field course in Australia
- 1983 87 University of New England, Australia, Botany Dept. Agronomy, General Biology

- 1981 89 Earthwatch, Principal Investigator, 10 field research expeditions in Australia
- 1979 82 Sydney University, Lecturer, Adult Education Department Plant Taxonomy, Plant Ecology, Beginning and Advanced sections
- 1979 82 Sydney University, Teaching Assistantships Plant Physiology, Plant Ecology, Plant & Animal Biology, Botanical Methods, and Natural Resources Ecology
- 1975 76 Williams College, Teaching Assistantships Field Botany, Environmental Biology, Advanced Plant Ecology

TEACHING OUTREACH & INNOVATIVE EDUCATION	
2022	"Centerfold" for National Geographic's 2023 Kids Almanac, focused on trees
2020-on	Virtual "meet-a-scientist" programs during COVID-19 pandemic (>100/year)
2019	Invited participant National Geographic Explorers festival, rain forest think tank, and
	plant conference
2019	Documentary film, A Woman who Climbs Trees, as a woman in field biology
2018-20	Led Williams College alumni trips to Nepal/Bhutan, Amazon and Costa Rica
	Numerous skypes with K-12 classrooms and school assemblies about rain forests, well
	over 5,000 youth annually by hosting ~ 25+ broadcasts
2018	National Geographic Explorer, Assessing church forests, Ethiopia as critical reservoirs of herpetofaunal diversity
2017	JasonLearning expedition to Malaysia to study rain forest biodiversity, Penang
2016	Keynote for Jason Learning, a revival of original Jason Expeditions Washington DC
2014	<b>TEDx</b> Livermore, CA invited speaker: "How to Raise a Girl Scientist"
2014	Various innovative outreach activities: featured in Google Hangout, blog for Huffington
	Post, Scientific American Forum, numerous distance learning "meet-a-scientist" to
	middle schools in ~ 10 states (who study my canopy research as statewide Science Next
	Generation Standards), CBS news interview on canopy access for mobility-limited;
	~202,000,000 social media hits during 2014
2014	Featured in National Geographic TV show, How to Climb a Tree (host: David Rees)
2012 - 13	Created virtual "meet-the-scientist" programs in NC Museum of Natural Sciences' Daily
	Planet technology theater; hosted EO Wilson & others in "global town halls"; gave > 100
	public talks to communicate and inspire fundraising for Museum's Nature Research
2012	Center; trained new staff to develop visual lab programs/grants/communication
2012	Featured by National Geographic as their "real-life Lorax"; called "Einstein of the
2012	treetops" by Wall Street Journal
2012	Invited delegate to the White House Summit on Women and the Environment
2010	Co-chair, National Summit in Ecology Education entitled: Environmental Education for a Sustainable World in Washington DC
2010	Featured in Popular Science Magazine college issue: Top Ten Cool College Labs
2010	Featured in Oprah Magazine: Women Taking Risks
2010	Funded and hosted Rapid Response Training for Invasive Pythons in SW Florida
2009	Press (& Florida cabinet) delegate to UNFCCC (climate change meetings, Copenhagen)
2009	Florida Trend Magazine - Icon for February issue (audience mainly business leaders)
2008 - on	Meg Lowman Treetops Camp - science mentor to at-risk teenage girls, annual camp
2008	Funded and hosted Invasive Reptile workshop for state of Florida
2008	PASI - National Science Foundation graduate workshop, taught canopy ecology in Peru
2008	Pierian Academy, faculty for adult ecology education
2007	Featured in National Geographic Explorer, Natural History, and Smithsonian magazines
	for canopy exploration
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2007	"No Child Left Indoors" proclamation to city and county of Sarasota; charter for
2007	Ecological Society of America and other environmental groups
2006 - on	Website: www.canopymeg.com (~2 million hits per year)
2006	Feature article, Smithsonian Magazine
2005 - 15	Science columnist <i>Nature's Secrets</i> : North Carolina's News & Observer and Charlotte
	Tribune, Sarasota Herald Tribune newspaper
2004 - 10	Tutored New College of Florida students in environmental outreach: leading hikes in
	local parks and creating hands-on science activities in local middle schools; 53 students
	participated and earned County Environmental Education Award in 2006
2004	Jason XV Project for youth education in the rain forests of Panama (over 50 broadcasts
	for schools and museums during January 2004, 3 million students) and co-authored
	curricula
2002	HGTV host for two botanical shows
2001	New York Times/National Geographic Profile TV Series
1999	Jason X Project in Science Education, Chief Scientist - international K-12 science
1000	education in forest canopies of Amazonian Peru
1999	Scientist featured in National Geographic TV special, <i>Heroes of the High Frontier</i>
1995 - 2010 1994	Led Educators' Workshops for teachers about tropical ecology in Peruvian Amazon  Legan V Project Chief Scientist international K 12 science education program with
1994	<b>Jason V Project, Chief Scientist</b> - international K-12 science education program with satellite linkage between classrooms and scientist at field sites; completed 61 live classes
	from the rain forest canopy of Belize; wrote curriculum with National Science Teachers
	Association
1993	Produced <b>Reading Rainbow</b> feature film about trees w/ Lavar Burton (of Star Trek), a
-770	national series to educate K-9 about science and reading, <i>Once Upon a Tree</i>
1991	Initiated first K-6 program for Williams College students to work with elementary classes
	to produce games that demonstrated environmental principles
1980 - on	Lectures to numerous education groups including alumni societies, college students, high
	schools, and elementary classes each year
1979 - 83	Sydney University, Adult Education - proposed and designed two new biology courses,
1055	and taught all lectures and labs
1977	Massachusetts Audubon Society, Merck Forest, Vermont
1968 - 76	Taught science at one of America's first summer field science programs (Burgundy
	Wildlife Camp) and co-wrote curriculum from that program for the Department of Health, Education, and Welfare
	Health, Education, and Wenare
BOOK ACC	COLADES
2022	The Arbornaut published in Australia, United Kingdom, Germany, big-print, paper
2021	The Arbornaut - a memoir, Farrar Straus and Giroux with great reviews
2000-2019	Books translated into Korean, German, Chinese, Amharic, and Taiwanese
2006	Natural History magazine, Endnotes featured It's A Jungle Up There; numerous NPR
	Radio interviews and newspaper features; Smithsonian Magazine "centerfold"
2002	Asteroid Lowman near Jupiter named by Carolyn Shoemaker in honor of my book
2000	NY Public Library "Books Every Teenager Should Read" Award
2000	<b>Life in the Treetops</b> nominated for the Rachel Carson Book Prize, The John Burroughs
	Medal, The New York Book Award for the Best Debut of 1999, the 1998-2000
	Educator's Award, PEN/Martha Albrand Award for the Art of the Memoir, Christopher
1000	Award, Phi Beta Kappa Award in Science
1999	Cover review on Sunday NY Times Book Review for Life in the Treetops

## RESEARCH EXPERIENCE & GRANTS

	EXPERIENCE & GRANTS
2021-	Fund-raising \$10 million for Mission Green to build 10 canopy walkways and conserve
	10 genetic libraries in endangered global forests
2017	Flagstaff Holdings and Habitat Foundation, \$100,000 to fund IBSS biodiversity
	expedition in Penang; and second grant for Jason Learning virtual education from
	Spurlino Foundation, \$50,000 to accompany scientific expedition, Penang.
2017	NSF-REU travel supplement for grant #1359367 (\$14,568).
2017	IMLS (with U. CA – Santa Cruz) Developing and disseminating a genomic toolkit for
2017	the museum community (\$490,799)
2017-20	NSF advisory committees – OISE (international science & engineering); ERE
2017 20	(environmental research and education)
2016	National Geographic Herpetological Biodiversity in Ethiopia Church Forest Walls
2010	(\$26,000)
2016	Lakeside scholarships to host: Dr. Sinu Pallaty (India) and Dr. Alemayehu Wassie
2010	* ` '
2015	Eshete (Ethiopia) and Tizezew Sisay (Ethiopia) to study and collaborate at Academy
2015	Southwest Forest Service annual collaborative (\$50,000/yr)
2015 - 19	REU NSF grant – Undergraduate research in the cultural, economic, and ecological
2015 10	significance of church forests in South Gondar, Ethiopia (w/Colby College, \$406,038).
2015 - 19	NSF REU - Wheelchairs and Waterbears: 3D Access to survey forest canopy
	biodiversity, with special emphasis on inspiring mobility-limited students to seek careers
2012	in field biology (w/Baker University \$189,251).
2013	Picker Foundation grant to survey church forests of Ethiopia (w/Colgate U., \$148,000)
2013	Forest Service, biodiversity research and outreach in North Carolina (\$105,000)
2013 - 17	NSF MSP grant - Students Discover: Improving middle school STEM outcomes through
	scaling citizen science projects. (Co-PI for \$4,286,777.00 with NCSU and NC public
	schools)
2013	North Carolina university partnerships for Museum (~ \$430,000 per year)
2012 - 14	National Science Foundation RUI grant: Insect Biodiversity in Temperate Forest
	Canopies - Using canopy research to inspire the physically challenged to engage in
	careers in science (\$149,000, pilot)
2012	Forest Service partnership for biodiversity lab (\$130,000); Dunn lab partnership for
	Biodiversity Lab (\$90,000) and for Genomics Lab (~ \$150,000)
2011	Global town halls at NRC with Rolex Young Laureates, Rolex Corporation (\$25,000)
2010	National Geographic CI73-09 – Can Church Forests Conserve Insect Biodiversity in
	Ethiopia? (\$24,000)
2010	Ecology Education Summit (\$50,000 NSF; \$25,000 additional sponsors)
2010	Forest conservation and outreach (\$15,000 Spurlino Foundation; \$10,000 TRIAD)
2009	5 <sup>th</sup> International Canopy Conference, Forest Canopies: conservation, climate change and
	sustainable use. (Indo-US Science & Technology Forum #99-2008 \$12,000 w/T Ganesh
	and Soubadra Devy)
2009	Church forests of Ethiopia, Spurlino Fdn (\$15,000 for religion & science workshop)
2009	Forest canopies – US-India Workshop: articulate and disseminate research priorities on
	forest canopies, Bangalore October 2009 w/K. Bawa (NSF \$31,000)
2009	Treehouses and canopy walkways - Ecology education in SW Florida (Triad \$10,000)
2008	Sarasota County - Invasive species ecology and ecology education (\$50,000)
2007	Economic Development Corporation, website development for regional government
	biological field station project (\$5,000)
2007	Canopy Ecology - regional and international (Triad \$25,000)

2006	National Science Foundation, informal science education, rain forest exhibit (\$75,000)
2006	Student Outreach in Science (SOS) - Environmental education grant (Community
2005 07	Foundation, \$11,000 grant co-written with NCF students)
2005 - 07	Canopy Ecology - Regional and international (Triad \$35,000)  Economic Development Corporation - Field station green design (\$5,000)
2005 2004 - 07	Sarasota County, environmental services to regional government (\$200,000)
2004 - 07	Jason X Project for Education, ACEER, Peru (~\$25,000)
2004	Aaron Foundation - Canopy ecology - Public programs (\$10,000)
2003	Herbivory protocols using canopy cranes - Global Canopy Program (\$26,178)
2002	Triad Foundation - Canopy ecology - Research and outreach (\$30,000)
2002	The Venice Foundation - Botanical collections (\$200,000)
2002	Phase I - Capital Campaign private donor acquisitions (\$1.3 mil)
2002	Selby Foundation - Memorial for botanical philanthropist, Marie Selby (\$75,000)
2001	Bank of America education grant for children's garden exhibits (\$25,000)
2000	State of Florida - Division of Historical Resources - Botanical Collections Security (\$1.5 mil)
1999 - 2003	National Science Foundation, links between the canopy and the forest floor (\$419,976)
	plus student participation: Ecological Circuitry Collaboratory (\$59,932)
1999	Selby Foundation - Matching grant for botanical improvements (\$500,000)
1998 - 2001	Long-term studies of trees in tropical and subtropical forests, worked with Joseph
	Connell and Ian Noble, National Science Foundation (\$250,000)
1998 - 99	Phytotelm plants of the Choco and their associated insect fauna, National Geographic Society (\$20,000)
1998	Forest Canopies 1998: Global Perspectives - National Science Foundation (\$20,000);
	United Nations Environmental Program (\$20,000)
1997	Epiphyte diversity in intact versus fragmented rain forests of Cameroon, Africa, National
	Geographic Society (\$19,800)
1996	Canopy ecology and ecotourism in Western Samoa, Seacology Foundation (\$10,000)
1994	Forest Canopy Conference: Forest Canopies: Ecology, Biodiversity, and Conservation, NSF (\$20,000); World Wildlife Fund (\$5,000)
1993 - 98	Long-term studies of trees in tropical and subtropical forests, with Joseph Connell and Ian Noble (NSF \$250,000)
1993 - 94	Jason V Project - Biodiversity in the rain forest canopies of Belize (~\$75,000)
1993	Smithsonian Visiting Scientist Fellowship to STRI, Panama (\$1,100)
1991	Herbivory in the rainforest canopies of Cameroon - Operation Canopée Expedition, Elf-Serepco (\$7,500)
1990	Canopy walkway construction, Hopkins Forest, Massachusetts, Miller Fund - Williams College (\$2,500) and Bronfman Science Fund (\$3,000)
1989	Mycorrhizal associations and survivorship of rain forest seedlings, UNE Faculty Grant
1985	for innovative projects (\$6,600) Effects of insect damage to root systems of eucalypts, Earthwatch (\$27,000)
1983 - 90	Eucalypt regeneration in dieback regions - Forestry Commission, Australian Research
1703 - 70	Grants Commission, Ruby Hills Pastoral Company (\$20,000)
1983 - 86	Postdoctoral research on herbivory and insect epidemics in Australian forests - Australian
1705 00	Research Grants Committee (\$122,600)
1982 - 88	Insect abundance and distribution in Australian rainforest canopies - Earthwatch (\$312,000)
	(ψ312,000 <i>)</i>

1979 - 83	Miscellaneous marine research, including coral cay vegetation surveys, intertidal
	barnacle settlement, and photosynthesis on One Tree Island, Heron Island research labs,
	Great Barrier Reef and Cape Banks intertidal region, Sydney Australia
1976	Bronfman grant to reorganize herbarium for Williams College
1975	U.S. National Science Foundation REU student grant, investigating wood productivity of
	birch as energy source for New England towns (forest biomass surveys, computer
	regression models)
1974	Co-authored high school curriculum in environmental education for high schools
	(Department of Health, Education, and Welfare)

#### **PUBLICATIONS**

### **Books:**

**Lowman, MD.** In press. Tree Day – 24 hours and 24 arboreal lives. University of Chicago Press. **Lowman MD.** 2021. The Arbornaut, a life exploring the 8<sup>th</sup> continent in the trees above us. Farrar, Strauss & Giroux. (paperback, big-print, German, UK and Australian editions published 2022)

**Lowman MD,** S Azizah Mohd Nor, N Ruppert (editors). 2021. Biodiversity Survey on Penang Hill, Malaysia. USM Publishers.

**Lowman MD**. 2017. Muddy Boots – essays of a field biologist. Peppertree Press, 148 pp.

**Lowman MD.** 2016. Through the Year with Gertrude Grosbeak. Peppertree Press, children's book.

**Lowman MD** and W Mulat. 2014. Beza - Who Saved the Forests of Ethiopia, One Church at a Time. Peppertree Press (children's book), both English and Amharic versions.

**Lowman MD**, S Devy, and T Ganesh (eds.). 2013. Treetops at Risk. Springer, 444 pp.

**Lowman MD**, T Schowalter, and J Franklin. 2012. Methods in Forest Canopy Research. University of California Press.

**Lowman MD**, E Burgess, and J Burgess. 2006. It's A Jungle Up There - More Tales from the Treetops. Yale University Press, 291 pp. (Paperback, 2008; reprinted in Korean, 2009.)

**Lowman MD** and HB Rinker (eds.). 2004. Forest Canopies. Elsevier/Academic Press.

**Lowman MD**. 1999. Life in the Treetops: Adventures of a Woman in Field Biology. Yale University Press. (Editions in German, Chinese and Korean; paperback in 2002.)

**Lowman MD** and NM Nadkarni (eds.). 1995. Forest Canopies. Academic Press, 624 pp. (Second edition in paperback, 1996.)

**Lowman MD** (ed.). 1992. Ecology of Hopkins Forest. Williams College Printers, 100 pp.

Heatwole H and MD Lowman. 1986. Dieback: Death of an Australian Landscape. Reed & Co, 150 pp.

## **National Leadership Reports:**

Aldo Leopold Leadership Program. 2019. Environmental leadership case studies. Chapter on Ethiopian church forests and bottom-up conservation (subm).

**Lowman MD**. 2012. Health and environment - kids and treehouses. Women and the Environment White House Summit.

NEON Tiger Team. 2008. Education Plan. <a href="http://neoninc.org/documents/EdTigerTeamReport">http://neoninc.org/documents/EdTigerTeamReport</a>
NEON ISEP. 2006. National Ecological Observatory Network, Integrated Science and Education Plan.
National NEON Design Committee, **MD Lowman** - co-chair education group, contributed to ISEP plan and writing: <a href="http://www.neoninc.org/documents/ISEP">http://www.neoninc.org/documents/ISEP</a>

Sarasota County Environmental Initiatives, FL. 2004-2009. Series of quarterly reports over 5 years to document environmental programs: invasive reptiles, science education outreach, development of Land Institute, conservation action plans, and other activities.

**Lowman MD**. 1974. Some Aspects of the Fabric of Life. US Department of Health, Education, and Welfare, 204 pp.

## **THESES:**

**Lowman MD**. 1982. Leaf Growth Dynamics and Herbivory in Australian Rain Forest Canopies. Ph.D. Thesis. Sydney University (Supervisors: Peter Myerscough and Joseph Connell).

**Lowman MD**. 1978. Phenology and Productivity of *Betula pendula* and *B. pubescens* in Scotland. Master's Thesis. Aberdeen University (Supervisor: Peter Ashton).

**Lowman MD**. 1976. Phenological Phenomena and Growth Studies for 16 Northern Hardwoods. Honors Thesis. Williams College (Supervisor: Henry Art).

#### SCIENTIFIC PUBLICATIONS

Caviglia-Harris, J., K. E. Hodges, B. Helmuth, E. M. Bennett, K. Galvin, M. Krebs, K. Lips, M. Lowman, L. A. Schulte, and E. A. G. Schuur. 2021. The six dimensions of collective leadership that advance sustainability objectives: rethinking what it means to be an academic leader. Ecology and Society 26(3):9.

WR Miller, H Cotten, SAM Nor, MD Lowman. 2021. Tardigrades of Malaysia: New records of occurrence from Penang Hill. In: Kansas Biology Transactions.

S Saatchi, M Longo, L Xu, Y Yang, H Abe, **MD Lowman**. 2021. Detecting vulnerability of humid tropical forests to multiple stressors. *Science Direct*.

Wayne P. Sousa, Kyle E. Harms, Claudia M. Tyler, **Margaret D. Lowman**, Michael J. Keough, Peter T. Green, Allan Stewart-Oaten (2021). Resolution of Respect Joseph Hurd Connell (1923-2020). *The Ecological Society of America (ESA) Bulletin*.

Cannon, Charles..... M Lowman and 33 other authors. 2021. Extending our scientific reach in arboreal ecosystems for research and management. Frontiers in Forests and Global Change 4: 1-17.

**Lowman MD**, L Nkaganovsky, C Haley. 2020. Herbivory in the Malaysian rain forest canopy, Penang Hill. IN: The Biodiversity of a Malaysian Rain Forest, Penang Hill. Malaysian Forestry Service Publications.

Moore A, MD West, L Tibbs, WR Miller, C Johansson, **MD Lowman**. 2020. Tardigrades of the canopy: a new genus for <u>Acanthechiniscus goedeni</u> (Heterotardigrada: Eschiniscoidea: Echiniscidae) from Oregon USA. Zootaxa. (first authors were undergraduate students).

Prashanth Ballullaya U, Manoj Kandoth, Rajesh TP, KS Reshmi, **MD Lowman**. 2019. Stakeholder motivation for the conservation of sacred groves in south India: an analysis of environmental perceptions of rural and urban neighborhood communities. Land Use Policy (in press). DOI: https://doi.org/10.1016/j.landusepol.2019.104213

Qing Pei, Guodong Li, BP Winterhalder, **M Lowman**. 2019. Regional patterns of pastoralist migrations under the push of reduced precipitation in imperial China. Global Ecology and Biogeography 00:1-11. DOI: <a href="https://doi.org/10.1111/geb.13040">https://doi.org/10.1111/geb.13040</a>

**Lowman MD.** 2019. Methoden der baumkronen-forschung im wald. IN: Jahrbuch der Baumpflege (Yearbook of Arboriculture) 2019. (Ed D. Dujeseifken). Haymarket Media. Pp. 111-121.

WR Miller, H Cotton, SA Kimball, **MD Lowman**. 2019. Tardigrades in the canopy: from outreach to classroom to science. IN: The Biodiversity of a Malaysian Rain Forest, Penang Hill. Malaysian Forestry Service Publications.

Waymire A, M DuBuc, WR Miller, **MD Lowman**. 2019. Tardigrades in the canopy: an analysis of arboreal habitats. IN: The Biodiversity of a Malaysian Rain Forest, Penang Hill. Malaysian Forestry Service Publications.

Goodin D, A Wassie, **MD Lowman**. 2019. The Ethiopian Orthodox Tewahedo Church Forests and Economic Development: The Case for Traditional Ecological Management. Journal of Religion and Society 21: 1-23.

**Lowman MD**, S Azizah Mohd Nor, N Ruppert 2018. Advancing the rain forest conservation toolkit – a new model for biodiversity surveys. Conservation Biology and Practice (online). DOI: <a href="https://doi.org/10.1111/csp2.2">https://doi.org/10.1111/csp2.2</a>

**Lowman MD**, L Nkaganovsky, C Haley. 2019. Herbivory in the Malaysian rain forest canopy, Penang Hill. IN: The Biodiversity of a Malaysian Rain Forest, Penang Hill. Malaysian Forestry Service Publications.

**Lowman MD.** 2018. Earth system environmental literacy. IN: Encyclopedia of Sustainability Science and Technology. Springer Science Publishers.

DOI: https://doi.org/10.1007/978-1-4939-2493-6\_895-3

Schlabach S., J Donaldson, K Hobelman, WR Miller, & **MD Lowman.** 2018. Tardigrades of the Canopy: *Milnesium burgessi* nov. sp. (Eutardigrada: Apochela: Milnesiidae) a new species from Kansas, U.S.A. *Transactions of the Kansas Academy of Science* 121(1-2):39-48. DOI: <a href="https://doi.org/10.1660/062.121.0204">https://doi.org/10.1660/062.121.0204</a>

Permutter G, GB Blank, TR Wentworth, **MD Lowman**, HS Neufeld. 2018. Highway pollution effects on microhabitat community structure of corticolous lichens. The Bryologist 121(1): 1-13. (first author is my graduate student)

DOI: <a href="https://doi.org/10.1639/0007-2745-121.1.001">https://doi.org/10.1639/0007-2745-121.1.001</a>

**Lowman MD** and J Kress. 2017. Biodiversity and collections – museums as an alternative career to academics. Frontiers in Ecology and Environment 15: 110-112.

**Lowman MD** and S Pallaty 2017. Sacred Forests – assessing the value of spiritual sites. Bioscience 67: 688-90. (second author is graduate student)

**Lowman MD** 2017 More than a repository for dead bodies – making natural science museums relevant for the next generation. Austin Publishing open access 1:1-2.

**Lowman MD** 2017. Exploration in the treetops. **IN**: Exploration – Merit Badge Series for Boy Scouts of America.

Perlmutter G, G Blank, TR Wentworth **MD Lowman**, HS Neufeld, ER Plata. 2017. Effects of highway pollution on forest lichen community structure in western Wake County, North Carolina, USA. The Bryologist 120:1-10.

DOI: https://doi.org/10.1639/0007-2745-120.1.001

**Lowman MD**. 2016. Exploring exploration: a field scientist's perspective. Lifewide Magazine (UK) 18: 61-64.

Reynolds T, CD Collins, A Wassie, J Liang, W Briggs, **M Lowman**, TS Sisay, E Adamu. 2016. Sacred natural sites as mensurative fragmentation experiments in long-inhabited multifunctional landscapes. Ecography 39: 1-14. (three authors are US undergraduates and 2 Ethiopian students) DOI: <a href="https://doi.org/10.1111/ecog.02950">https://doi.org/10.1111/ecog.02950</a>

Permutter G, G B Blank, TR Wentworth, **MD Lowman**, HS Neufeld. 2017. Environmental factors influencing lichen communities in highway-exposed forests and building an indicator species index for environmental quality in central North Carolina, USA. J Total Environment.

Sorger DL, W Booth, AW Eshete, **M Lowman**, M Moffett. 2016. Outnumbered – a new dominant ant species with genetically diverse supercolonies in Ethiopia. Insectes Sociauz. DOI: https://doi.org/10.1007/s00040-016-0524-9

**Lowman M** and B Voirin. 2016. Eye on the environment: drones for conservation. Frontiers in Ecology and Environment 14: 234.

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M Lowman. 2016. Life in the Lab. Science 352:47.

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DOI: https://doi.org/10.11646/zootaxa.4072.5.3

Chang L, D Powell, WR Miller, and **M. Lowman**. 2015. Tardigrades of the canopy: evidence of stratification. Transactions of the Kansas Academy of Science 118: 230-236. (1<sup>st</sup> authors = students) DOI: <a href="https://doi.org/10.1660/062.118.0306">https://doi.org/10.1660/062.118.0306</a>

**Lowman M**. 2015. Taiwan explores and celebrates her treetops. For. Res. Newsletter Taiwan 22: 28-30.

Chappell BM, D Parry, WR Miller & **MD Lowman** 2015. Tardigrades of the Canopy: *Doryphoribius gibber* Beasley and Pliato, 1987 (Eutardigrada: Parachela: Hypsibiidae) new records from eastern Kansas, U.S.A. Transactions of the Kansas Academy of Science 118:48-52. DOI: https://doi.org/10.1660/062.118.0106

Young A, WR Miller RL Tripp, & **MD Lowman**. 2015. Tardigrades in the canopy: a preliminary report. 13<sup>th</sup> international symposium on Tardigrada, Modena Italy.

Tallis H, J Lubchenco, ... **M Lowman** et al. 2014. A call for inclusive conservation. Nature 515: 27-31. DOI: <a href="https://doi.org/10.1038/515027a">https://doi.org/10.1038/515027a</a>

Haefke, BJ, A Spiers, WR Miller & **MD Lowman**. 2014. Tardigrades of the canopy: <u>Doryphoribius elleneddiei</u> nov. sp. (Eutardigrada, Parachela, Hypsibiidae), a new species from eastern Kansas. Transactions Kansas Academy of Sciences 117: 299-304. (first authors = undergraduate students) DOI: https://doi.org/10.1660/062.117.0319

**Lowman MD**. 2014. Ecoliteracy in informal science education settings. Frontiers in Ecology and the Environment 12: 474-5.

DOI: https://doi.org/10.1890/1540-9295-12.8.474

**Lowman MD**. 2014. Put the Muse Back in Museums - Science museums should recruit the public in confronting the planet's toughest challenges. Scientific American Forum.

Rocha LA ... **M Lowman** et al. 2014. Specimen collection: an essential tool. Science 344: 814-5. DOI: <a href="https://doi.org/10.1126/science.344.6186.816-a">https://doi.org/10.1126/science.344.6186.816-a</a>

Haefke BJ, AI Spiers., WR Miller & **MD Lowman,** M.D. 2013. Tardigrades in the Canopy: Using double rope techniques to conduct sampling along vertical transects. *Transactions of the Kansas Academy of Science*, 116(3-4):119-124.

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**Lowman, M. D.**, T. Ganesh, and S. Devy. 2013. The Role of Scientific Conferences to Foster Conservation Solutions for Global Forests. IN: *Treetops at Risk: Challenges of Global Canopy Ecology and Conservation*, Springer Verlag.

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Newspaper column entitled: <u>Nature's Secrets</u> (Sarasota Herald Tribune, March 2005 – 2013); over 80 public science newspaper feature articles on subjects ranging from climate change to local ecosystems.

**Lowman, M.D.** 2013. Hooking the public on science. *Ecology*, 94(4), 2013, pp. 981–982.

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**Lowman, M.D.** 2012. North Carolina leverages funding for science education. Science 335: 1201.

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Cardelús C, M Baimas-George, **M Lowman**, and A Wassie Eshete. 2013. Church forest status and carbon sequestration in northern Ethiopia. IN: Treetops at Risk. Springer: 119-122. DOI: https://doi.org/10.1007/978-1-4614-7161-5\_11

Devy S, T Ganesh, and **M Lowman**. 2013. "Canopy-less" monitoring of biodiversity and climate change: signs of a leaky roof. IN: Treetops at Risk. Springer: 169-177.

Heatwole H, S Unsicker, and **M Lowman**. 2013. Ontogeny of herbivory on leaves in a tropical rain forest in Madagascar. IN: Treetops at Risk. Springer: 295-305. DOI: https://doi.org/10.1007/978-1-4614-7161-5 29

Kaganovskiy L and **M Lowman**. 2013. Modeling insect outbreaks in forest canopies: integration of virtual simulations with hands-on ecology for undergraduates. IN: Treetops at Risk. Springer: 341-352. DOI: https://doi.org/10.1007/978-1-4614-7161-5\_34

Lewis OT, RM Ewers, **MD Lowman**, and Y Malhi. 2013. Conservation of tropical forests: maintaining ecological integrity and resilience. IN: Key Topics in Conservation Biology 2. DW Macdonald & KJ Willis (eds.). John Wiley & Sons: 222-235.

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**Lowman MD**. 2013. Exploring the rain forest canopy by balloon. IN: The Modern Explorers. R Hanbury-Tenison & R Twigger, eds.). Thames and Hudson.

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Miller W, **M Lowman**, and E McCord. 2013. In the canopy with wheelchairs: a model for teaching field biology. IN: Treetops at Risk: the challenges of global canopy ecology and conservation. Springer, New York: 331-339.

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Newspaper fortnightly Science Column, Raleigh News and Observer/Charlotte News (2011-2014).

(Note: Twenty one peer-reviewed publications were co-authored with undergraduate students, as a result of teaching and outreach.)

### INVITED, KEYNOTE AND CONFERENCE LECTURES (LIST IS NOT INCLUSIVE)

(Average one talk per week on topics of rain forests, canopies, and girls in science)

#### 2020-2025

- 2022- National Geographic Explorers Fest, keynote speaker
- 2022 Missouri Botanical Garden evening lecture
- 2022- Terrescience podcast, Sirius XM truck-driver radio show, and over 50 other interviews
- 2022 Lecture at Ranamafauna National Park, Madagascar
- 2022 Numerous book talks about The Arbornaut, including Virginia Festival of Books and Arizona State University
- 2022 Hosted Ginger Zee for Good Morning America TV in the canopy
- 2022 Architecture School of Catalonia, Barcelona Spain

#### 2015 - 2020

- 2019 The Money Tree Williams College in Costa Rica
- 2019 Three fund-raising talks for Earthwatch Institute about forest research
- 2019 Over 100 virtual talks to K-12 classrooms around the country
- 2019 Keynote, International Treehouse Conference, Oregon
- 2019 Keynote opening, Vermont Institute of Nature Studies new canopy walkway
- 2019 National Geographic, 90<sup>th</sup> birthday tribute to EO Wilson
- 2019 Quarryhill Botanical Garden, fundraiser for education, Glen Ellen CA
- 2019 Conservation Solutions for Tropical Rain Forests Williams College in the Amazon
- 2019 Fund for Women Keynote speaker, Corning Glass Corporation, NY

- 2019 Neue hohen erklettern wie das baumklettern forschung in baumkronen inspiriert hat, Tree Care Conference keynote, Augsburg Germany
- 2019 Methoden der baumkronen-forschung im wald, Tree Care Conference Augsburg Germany
- 2018 Google Sci-Foo camp, Lightning talk about Ethiopian church forests, Mountain View CA
- 2018 Aldo Leopold Leadership workshop, University of Minnesota, MN
- 2018 Muskoka Environmental Summit, Canada
- 2017 Campuswide lectures at Butler University, Berea College, Univ. South Florida
- 2017 Conservation Foundation annual lecture; Sequoia Zoo fund-raising lecture
- 2016 Women in Science Summit co-chair, keynote speaker, moderator, California Academy
- 2016 Holden Arboretum OH Arbor Day distinguished lecture and launch of new walkway
- 2016 Elon College NC Visiting Scholar series
- 2016 Penang Hill, Malaysia Canopy walkways exploring the 8th continent
- 2015 Bhutan National Park Service Canopy walkways for conservation and education
- 2015 Elmira College invited commencement address
- 2015 Google Sci Foo Camp CA Saving the forests of Ethiopia, one church at a time

### 2010 - 2015

- 2014 University of Chicago, 21<sup>st</sup> Century Scientists lecture series: Out on a Limb challenges of women in science
- 2014 Diversity Lunch, Ecological Society of America: Game changers and innovation in Ecology
- 2014 Life in the treetops Beloit High School, MI (~ 1000 students)
- 2014 It's a Jungle Up There Challenges in global forest conservation, Roy Chapman Andrews Distinguished Explorer Award acceptance speech
- 2014 Keynote Opening speech, Science Online National Conference, Wheelchairs and Waterbears: inspiring underserved students in science, Raleigh NC
- 2014 Plant-insect interactions in forest canopies, EO Wilson Honorary Symposium
- 2014 Out on a Limb Challenges of a woman in science, Wilson College commencement
- 2013 International Congress of Ecology (INTECOL) invited speaker How religion and science can work together for integrated conservation solutions, London UK
- 2013 Biotechnology Center, Research Triangle Park, Summit introduction and moderator
- 2013 Students as catalysts for large landscape conservation, Colby College, ME Keynote
- 2013 Shattuck-St. Mary's School, MN Life in the Treetops Challenges of jungle exploration
- Women in Science and Engineering (WISE) 10<sup>th</sup> anniversary, North Carolina State University Out on a Limb Challenges of a woman in science
- 2013 TEDx at NC School of Science and Mathematics How I climb trees to save forests
- 2013 Salon lecture Life in the Treetops Challenges of tropical forest conservation
- 2012 Rolex Awards ceremony, New Delhi India <u>Life as an Arbornaut Mentoring young</u> Indian leaders
- 2012 St. Mary's College in the Woods, Indiana Life in the Treetops: Challenges of women in science.
- 2012 Jimma University, Ethiopia New Perspectives for the Future of STEM Education
- 2012 NCREN keynote lecture STEM Education at the New Nature Research Center: Linking Virtual and Real Nature
- 2012 Numerous research talks in the Daily Planet multi-media theater, Nature Research Center
- 2012 Ecological Society of America, Diversity Lunch: Generation Z
- 2012 University of Texas, Pan American Challenges of women and minorities in science

- 2012 National Science Foundation K-12 keynote speaker, annual meeting, Washington DC Out on a Limb Linking Real and Virtual Nature for Generation Z
- 2012 SCOPE, NC State University, Raleigh Annual keynote speaker
- 2012 Chapel Hill Audubon Society <u>Life in the Treetops The birds and the bees of the canopy</u>
- 2012 Science Café, Raleigh NC I Speak for the Trees...
- 2012 Institute for Emerging Issues, annual meeting <u>Back to our Roots Eating Healthy and</u> Getting Children Outdoors
- 2012 Appalachian State University, Boone NC Commencement speaker
- 2011 Princeton Alumni Association STEM Education in America, from K through Gray
- 2011 Southeast Climate Science Center Workshop Presentation, <u>Climate Change Education</u> The NRC as a tool for researchers' broader impacts
- 2011 ScienceOnline Conference, Durham NC <u>Life in the Treetops Challenges of scientists</u> communicating to the public Keynote lecture
- 2011 Martin Luther King Day presentation, Bethlehem Church, Durham NC <u>Saving the forests of Ethiopia</u>, one church at a time
- 2011 Science Café, Tir Na Nog restaurant, Raleigh NC Rain Forests Going, going gone?
- 2011 Ashoka Trust for Research on Ecology and the Environment (ATREE), Bangalore India-<u>UN International Year of the Forest - Inspiring New Stakeholders for Forest</u> Conservation
- 2011 Earthwatch HSBC Bank field expedition, Bannerghatta National Park <u>A blueprint for a clean-energy future Climate change, economics, and conservation</u>
- 2011 Fulbright senior specialist scholar lecture series, India Thiruvananthapuram, Kerala state, Department of Forestry headquarters, <u>UN Year of the Forest Inspiring New Stakeholders for Forest Conservation</u>
- 2011 Fulbright Foundation Day, CPR Environmental Center, Forestry Department, Chennai India <u>Life in the Treetops Forest Canopies Promote Conservation, Economics, and Education</u>
- 2011 Fulbright forest lecture series, Guwahati, state of Assam India, Cotton College <u>United Nations International Year of the Forest: Inspiring New Stakeholders to Reverse</u> Deforestation
- Lecture at Nimal Prava Bordoloi Girls Hostel, Handique Girls College, Latasil,
   Guwahati, Assam India <u>It's a Jungle Up There Challenges of Women in Field Biology</u>
- 2011 NCSU Department of Biology, <u>Plant-Insect Interactions in Tropical Rain Forest Canopies</u>
- 2011 NCSU Entomology Department, <u>Plant-Insect Relationships in Forest Canopies the Herbivory Perspective</u>
- 2011 <u>Nature Research Center STEM Education in the 21<sup>st</sup> Century</u> Presentation for Deans of Extension, Engagement, and Economic Development, NCSU
- 2011 NCSU Veterinary School, annual lunch <u>Life in the Treetops Challenges of Women in Field Biology</u>
- 2011 <u>Beta-diversity of human skin bacteria studied with the citizen science approach</u> Ecological Society of America's annual meeting
- 2010 Wiley Elementary School Science Night <u>How Many Species Exist on Planet Earth?</u> K-5 science night
- 2010 Earthwatch Institute, Costa Rica Rainforests 101 and Copenhagen Update
- 2010 Women in Science Forum, Ferrum College Keynote speaker
- 2010 <u>What will ecology education look like in 2020?</u> Chair and keynote at Ecological Society of America's annual meeting

- 2010 A blueprint for Florida's clean energy future How canopy ecology and students contributed to shaping state climate change policy Ecological Society of America's annual meeting
- 2010 <u>Can scientists inspire local actions for environmental justice? Role and challenges of ESA's education outreach and diversity initiatives</u> Ecological Society of America's annual meeting
- 2010 <u>Tropical conservation and education outreach, as influenced by Connell's legacy</u> Ecological Society of America's annual meeting
- 2010 <u>An exploration of modeling the spread of the Burmese python, *Python mourus* Ecological Society of America's annual meeting</u>
- 2010 <u>Virtual versus real ecology education</u> Ecological Society of America
- 2010 Education and Diversity Vice President's Report, Ecological Society of America
- 2010 The View from Down-Under Advances in ecology and education outreach through the legacy of Joe Connell Invited paper at Ecological Society of America
- 2010 <u>Diversity Lunch, Chair and Moderator</u> Ecological Society of America
- 2010 SOS: Student Outreach in Science Engaging undergraduates to mentor high school students Invited paper at Ecological Society of America
- 2010 <u>Conservation of the church forests of Ethiopia</u> Updates on field research for expedition team, Bahir Dar Forestry department, Ethiopia
- 2010 Bugfest lecture series: 1. Stalking bugs by hot air balloon
  - 2. Bugs R Us Research on insects in forest canopies
- 2010 Museum Advisory Board, Life in the Treetops Flying high with the NRC
- 2010 Public phase committee, Life in the Treetops Meet the new NRC director
- 2010 Friends of Museum Board meeting <u>It's a Jungle Up There Challenges in science</u> education
- 2010 <u>Millions of beetles Biodiversity and climate change at a crossroads?</u> Church talk in Chapel Hill NC
- Opening welcome talk, Sustainable Education Summit; invited talk on <u>Virtual Versus</u>
  Real Environmental Education (with Rob Stevenson, U. Mass)
- 2010 Summary and next steps for STEM education, Sustainable Education Summit
- 2010 <u>It's a Jungle Up There Challenges of women in science</u>, Career Series, NCSU postdocs and graduate student career forum
- 2010 Rolex organized session, Geneva Switzerland It's a Jungle Up There Mentoring session for students from emerging countries
- 2010 Brimley Ball, keynote talk for fundraiser, Museum
- 2010 Lecture on The World, <u>Tropical Rain Forests 101 Exploration and research of global</u> forests
- 2010 Lecture on The World, It's a Jungle Up There Challenges of tropical forest conservation
- 2010 Out on a Limb Canopy research as a tool for advancing conservation, lecture to NESCENT at Duke University, and mentoring lunch with graduate students
- 2010 Plant-Insect Interactions in Forest Canopies, seminar for Natural Resources Department NCSU

#### 2005 - 2009

Connery Conservation Lecture, Tulane University, New Orleans LA - Invited keynote John Moran Distinguished Lecturer Series, Senior Academy, Sarasota FL - Invited Convocation lecture for Earth Day, Carleton College, MN - Invited keynote Environmental Panel for Earth Week, Princeton University, NJ - Invited Keep Sarasota Beautiful, FL - Invited keynote

Fourth International Canopy Conference, Germany - Invited

Seeing the Big Picture Symposium, Economic Development Corporation - Invited

Science Festival, Flagstaff Arizona 2005 - Invited keynote

Rutgers University, Ecology and Evolution seminar series - Invited

Explorers Club, Naples chapter - Invited

University of Nebraska, Earth Day 2006 - Invited

Jewish Women's Association donors' conference - Invited

Northern Trust Bank Golden Anchor clients - Invited keynote

Florida House Earth Day - Invited

Ecological Society of America, Memphis TN

Southern Utah University - Invited keynote

Presidential Dinner, The Explorers Club - Invited keynote

Lowell Thomas annual dinner, The Explorers Club 2006 - Invited honoree

SACNAS (Society of Chicanos and Native American Scientists), Tampa FL - Invited

Westover Academy, CT - Invited keynote

International Sustainable Construction Conference 2006 - Invited keynote

Frequent natural history lectures for community walks and local civic groups

Harvard-Yale-Princeton Club luncheon - Invited

SEEDS (Sustainable Ecology Education for Diverse Students) at Jasper Ridge

Biological Field Station, CA - Invited

Rachel Carson's birthday anniversary 2007, Chatham College, PA - Invited

ATBC Asian Chapter Inaugural Meeting, India - Invited keynote

Woods Hole Oceanographic Institution Gender & Equity Invited Speaker 2007 - Invited

Kutztown State University, PA "Take your daughter to work day" - Invited keynote

Villanova University, PA, Mendel Medal recipient 2007 - Invited lecture

Burgundy Country Day School, VA, Sevaeride Forum on Environmental Education - Invited keynote

Florida Cabinet, "Climate Change Summit" 2007 - Invited keynote panel

Association for Tropical Biology and Conservation, Morelia MX 2007

Ecological Society of America, San Jose CA 2007

Elizabethtown College, PA - Invited keynote

Concord College, WV - Invited keynote

The Explorers Club, South Florida Chapter - Invited keynote

Utah Environmental Education Society, Moab UT - Invited keynote

MIT/Cornell Alumni - Keynote

Republican Club of Sarasota County - Invited keynote

American Association of University Women - Invited

Thiel College, Earth Week consortium 2008 - Invited keynote

PASI-NSF sponsored Tropical Ecology Collaboratory, Lima PE

Pine View High School - 2008 Earth Day assembly for grades 2-12

Florida Secretary's Association annual meeting, University of Florida 2008

University of Washington - Urban Horticulture, School of Forestry

Ecological Society of America (ESA) 2009 - Contributions of canopy research to public education and understanding of ecosystem services

ESA 2008 - Session co-chair "No Child Left Indoors": An Action Plan for Future Involvement by ESA Members

ESA 2008 - It's a jungle up there: Juggling academic life with book authorship

ESA 2008 - Science outreach for students: Connecting outreach and ecology

ESA 2008 - Using undergraduates to create an energy audit for local green business

ESA 2008 - Applications of treecodes to modeling herbivory in forest canopies

ESA/SER 2007 - It's a jungle up there: Writing for technical versus public audiences

ESA/SER 2007 - It's a jungle up there: Integrating canopy research with education outreach for kids

ESA/SER 2007 - Modeling herbivory in forest canopies

ESA/SER 2007 - Out on a limb - Forest canopies

ESA/SER 2007 - The role of frugivorous birds and giant fruit bats as agents for reforestation in south India

ESA/SER 2007 - Science outreach for students: Initiatives to connect local schools to ecology

University of Wyoming, convocation address - Invited keynote

Anniversary of Women's Right to Vote, FL - Invited keynote

Millersville University, PA - Invited keynote

Australian Ecological Society, Sydney 2008 - Plenary address

Senior Friendship Center lecture series

Baker University, KS 2009 - Invited lecture

Gustavus Adolphus College - Linnaeus Symposium - Keynote speaker

University of California, Santa Barbara - Biology Department 2009

Ecological Society of America - Session chair: What will ecology education look like in 2020?

Tiger Bay policy forum, Sarasota FL - Clean energy panel

NSF Division of Undergraduate Education - Invited speaker

University of Miami - Seminar speaker

Various church, civic, and citizen groups in Sarasota and throughout Florida

#### 2000 - 2004

Convocation, SUNY Binghamton, New York - Invited keynote

Singapore Botanical Gardens, Singapore - Invited

World Orchid Conference, Malaysia - Invited speaker

World Bromeliad Conference, Florida - Invited speaker

Women and Science Symposium, University of Wisconsin - Invited keynote

Delta Kappa Gamma, International Conference, Canada - Invited keynote

Missouri Botanical Gardens, John Dwyer Lecture, Missouri - Invited keynote

North Carolina State University, NC - Invited keynote

Ecological Society of America, diversity luncheon panel, annual meeting, Arizona 2002 - Invited

Association for Tropical Biology and Conservation, Panama

Woodrow Wilson School of Public Policy, Princeton University - Invited

Bowling Green State College, OH - Invited keynote

University of Michigan - Invited keynote

Eckerd College, FL - Invited

Harvard University Club, FL - Invited

Florida Science Teachers Association, Jacksonville FL - Invited keynote

Cincinnati Zoo Conservation Lecture Series, OH - Invited keynote

Sarasota Institute of Lifetime Learning, FL - Invited

Eckerd College Community Lecture Series, FL - Invited

Ecological Society of America, Portland OR

The Global Canopy Debate, Eden Project, UK - Invited keynote

SE Regional Garden Club of America, Sarasota FL - Invited keynote

North Carolina State University Conservation Series, Raleigh NC - Invited

Numerous talks at Rotary, Sertoma, church, school and civic groups, FL

#### 1996 - 2000

Alumni Speaker, Williams College, MA - Invited

Brazilian Congress of Botany, Brazil - Invited keynote

Botanical Gardens of Rio de Janeiro, Brazil - Invited

ATB invited speaker session: Thinking globally and working globally: Ecological insights from

inter-regional comparative studies, Providence RI

National Botanical Gardens, Bogor Indonesia - Invited

Instituto de Ecologia Invited Visiting Scientist Program, Xalapa, Mexico

Vision Dinner, Marie Selby Botanical Gardens - Invited keynote

Global Studies 1998 Conference, University of Minnesota - Keynote speaker

Chair, 2<sup>nd</sup> International Forest Canopies 1998: Global Perspectives, Sarasota FL

Tropical Rain Forest Canopies Conference, Oxford University - Invited keynote

Jason X speaker, BOCES, Long Island - Invited keynote

Gifford Arboretum Distinguished Lecture, Miami FL 1999 - Invited

Garden Club of America Awardee Dinner, New Jersey 1999 - Invited keynote

International Rotary Governors Convention, Sarasota FL - Invited

### 1990 - 1995

The Madeira School, VA - Invited keynote

Botany Department, University of Hawaii, Manoa

Museum of Comparative Zoology, Harvard University, MA - Invited

Biology Department, Carleton College, MN - Invited

Earthwatch, Center for Field Studies - Annual Conference, Boston

International Epiphyte Conference, Selby Gardens, FL - Invited

Pacific Science Congress, HI - Invited

Audubon Naturalists/Smithsonian Institution, Washington DC - Invited keynote

Faculty Club, Williams College, MA - Invited

National Geographic Young Explorer, Washington, DC 1994 - Invited keynote

Chair, Canopy Symposium, AIBS, Honolulu HI

World Wildlife Fund, Washington DC - Invited

Selby Gardens, Board of Trustees, FL

Chair, 1<sup>st</sup> International Forest Canopy Conference, Sarasota FL

Geneva Sayre Invited Lecture, Russell Sage Colleges, NY 1995 - Invited keynote

Tropical Rain Forest Destruction Conference, Cambridge University, UK - Invited

British Entomological Society, London, UK - Invited

Professor Lampton Invited Annual Lecture, West Georgia College, GA

#### 1980 - 1989

Royal Botanic Gardens, Sydney NSW Australia - Invited

CSIRO Division of Plant Industry, Canberra Australia - Invited

Herbivory Conference, Kosciuszko National Park, VIC Australia - Invited

Australian Entomological Society Annual Conference, Australia

CSIRO, Entomology Division, Canberra Australia - Invited

Biology Department, University of California, Santa Barbara CA

Lamington National Park, QLD Australia

Center for Field Studies (Earthwatch), MA - Invited

CSIRO Rain Forest Research Unit, Atherton, QLD Australia

Entomology Department, Pennsylvania State University, PA - Invited

Organization for Tropical Studies (OTS) 25th Silver Jubilee Symposium (Miami FL) and workshop at La Selva, Costa Rica - Invited Soil Conservation Annual "Trees on Farms" Conference, University of New England, NSW Australia - Invited