

Curriculum Vitae
Barry A. Logan

Biology Department
Bowdoin College
Brunswick, Maine 04011
phone: (207) 725-3944
e-mail: blogan@bowdoin.edu

Education

- 1997 Ph.D., Biology, University of Colorado, Dissertation title: "Ecophysiology of antioxidation and the xanthophyll cycle in plants"
1990 B.A., Biology, Cornell University, Concentration: Animal Physiology and Anatomy

Academic Positions

- 2021-Present Samuel S. Butcher Professor in the Natural Sciences, Biology, Bowdoin College
2021-Present Chair, Biology Department, Bowdoin College [also 2017-2020]
2010-2021 Professor, Biology Department, Bowdoin College
2016-2019 Visiting Scientist, Arnold Arboretum, Harvard University
2012-2016 Associate Dean for Academic Affairs, Bowdoin College
2010-2012 Eminent Researcher, Centre for Plants and the Environment, University of Western Sydney, Australia
2010-2011 Director, Biochemistry Program, Bowdoin College [also 2006-2009]
2010 Visiting Fellow, School of Biological Sciences, Victoria University of Wellington, New Zealand
2004-2010 Associate Professor, Biology Department, Bowdoin College
1998-2004 Assistant Professor, Biology Department, Bowdoin College
1998 Professional Research Associate (University title for Postdoctoral Fellow). Biochemistry and physiology of foliar isoprene production. (Advisor: Professor Russell Monson) University of Colorado
1997 Instructor, Department of E.P.O. Biology, University of Colorado – Plant Physiology
1997 Professional Research Associate. Acclimation of *Monstera deliciosa* to high light. (Advisors: Professors William W. Adams III and Barbara Demmig-Adams) University of Colorado

Grants Awarded

Federal/Extramural

- Wyeth Foundation for American Art, "The Monhegan Wildlands: Artists, Ecologists, and the Resilience of a Maine Island" 2023 (\$25,000) (with Frank Goodyear)
National Institute of Standards and Technology, Special Programs, Greenhouse Gas Measurements, "From grasses, to trees, to forest fragments - Improving our understanding and modeling of biogenic fluxes in cities" 2023-2026, (\$845,076; \$126,536 sub-award to Bowdoin) (one of four co-investigators).
National Institute of Standards and Technology, Special Programs, Greenhouse Gas Measurements, "Quantifying spatial and temporal variations in urban biogenic carbon fluxes: measurements, models and remote sensing from the leaf to the forest scale" 2020-2023, (\$845,986; \$107,827 sub-award to Bowdoin) (one of five co-investigators).

- National Institute of Standards and Technology, Special Programs, Greenhouse Gas Measurements, “Quantifying spatial and temporal variations in urban biogenic carbon fluxes: measurements, models and remote sensing from the leaf to the forest scale” 2020-2023, (\$845,986; \$126,536 sub-award to Bowdoin) (one of four co-investigators).
- National Science Foundation, Division of Environmental Biology, “Collaborative Proposal: MRA: Seasonality of Photosynthesis of Temperate and Boreal Conifer Forests Across North America” 2020-2022 (\$1.25 million; Bowdoin portion: \$123,206)
- National Aeronautics and Space Administration, Terrestrial Ecology: Arctic-Boreal Vulnerability Experiment – Phase 2, “Ecophysiological and Physical Mechanisms Linking Solar-Induced Fluorescence and Vegetation Reflectance to Boreal Forest Productivity” 2019-2022 (Bowdoin portion: \$64,552)
- National Institute of Standards and Technology, Special Programs, Greenhouse Gas Measurements, “Urban Net Ecosystem Productivity: Solar Induce Fluorescence as a Tool for Productivity Assessment?” 2017-2020, (\$726,134; \$150,992 sub-award to Bowdoin) (one of three co-investigators).
- University of Western Sydney, Australia, Eminent Researcher Visitors Scheme, “Impact of Environmental Stress on Terrestrial Vegetation and Marine Algae,” 2010-2012, \$29,950 (AUD)
- Royal Society of New Zealand, International Science and Technology Linkage Fund, “The Evolution of Virulence in Parasitic Plants,” 2009-2010, \$3630 (NZD).
- Australian Research Council, “Productivity of *Eucalyptus* in Past and Future Climates – a Novel Approach to Understanding Environmental Impacts on Tree Growth,” 2007-2010, \$300,000 (AUD) (one of four co-investigators).
- USDA Equipment Grant, “Acquisition of a Licor 6400 Gas Exchange Analyzer to Examine the Differential Susceptibility of White and Red Spruce to Eastern Dwarf Mistletoe Infection,” 2004-2007, \$17,900.
- NSF CCLI A&I, “Bringing Chromatography and Spectroscopy into the Undergraduate Curriculum,” 2001-2003, \$23,879.
- USDA Standard Research Grant, “Testing Transgenic Cotton with Elevated Anti-oxidants,” 1999-2002, \$200,000 (one of three co-investigators).
- Bowdoin College**
- Faculty Research Fund, “A Request for Support to Attend the Annual Meeting of the Ecological Society of America,” 2010, \$500.
- Bowdoin Faculty Research Fellowship, “The Evolution of Virulence in Parasitic Plants,” 2009-2010, \$10,000.
- Rusack Coastal Studies Fellowship, “Physiological Effects of Eastern Dwarf Mistletoe on Host Water Relations in Coastal Red and White Spruce,” (with Jaret Reblin) 2007, \$7000.
- Faculty Development Fund, “Photosynthesis and Photoprotection in Loblolly Pine Exposed to Elevated Atmospheric Carbon Dioxide,” 2004, \$3,500.
- Faculty Research Fund, “A Request for Support to Attend the 13th Western Photosynthesis Conference (Retroactive) and the Northeastern Sectional Meeting of the American Society for Plant Biologists,” 2004, \$500.
- Faculty Research Fund, “A Genetic Exploration into the Mechanisms of Light Tolerance in Plants,” 2003, \$1190.
- Rusack Coastal Studies Fellowship, “Physiological Effects and Distribution of Eastern Dwarf Mistletoe Parasitizing Coastal Red and White Spruce,” (with Jaret Reblin) 2002, \$5315.
- Fletcher Award, “Physiological Ecology of Tropical Trees: Effect of Sex, Age, and Reproductive History on Growth and Photosynthesis,” (with Nat Wheelwright) 2002, \$1885.
- CBB Andrew W. Mellon Project for Library and Information Technology, “Enhancing Instruction in Plant Biology with Information Technology,” (with collaborators) 1999, ca. \$15,000.
- Faculty Research Fund, “Physiological Effects of Eastern Dwarf Mistletoe Infestation,” 1999, \$778.

Service

Editorial Board Member for *BioScience* (Oxford University Press) (present)

Editor for the *International Journal of Plant Sciences* (University of Chicago Press) (2014-2023)

Grant review panel member for the Plant Organism-Environment-Interaction program (2012) and the Integrated Ecological Physiology program (2015 & 2020) within the Physiological and Structural Systems cluster of Integrative Organismal Systems at the *National Science Foundation*; Beckman Foundation Scholars Program (2018 & 2020), FINESST program at the National Aeronautics and Space Administration (2020)

Grant proposal reviewer for the *National Science Foundation*, *National Fish & Wildlife Foundation*, the *Binational Agricultural Research and Development Fund*, the *Biotechnology and Biological Sciences Research Council*, the *Civilian Research and Development Foundation*, *Netherlands Organization for Scientific Research* and the *University of New Hampshire Agricultural Experiment Station*

Faculty Fellow, Joseph P. McKeen Center for the Common Good, Bowdoin College (2007-2009; 2019-2023)

Ad hoc reviewer of more than 175 manuscripts for more than 31 journals

Co-Founder, Cornerstones of Science <cornerstonesofscience.org>, 2000-2011

Schiller Coastal Studies Center Faculty Advisory Committee (2022-present), Faculty Appeals and Grievances, (2023-present; 2018-2021 [Chair]), Return to Campus Committee (2020), Institutional Biosafety Committee (2016; Chair), Institutional Animal Care and Use Committee (2016), Curriculum Implementation Committee (2012-2015; Chair), Committee on Education Policy (2012-2015), Faculty Development Committee (2010-2012; Chair), Student Fellowships and Research Committee (2008-2009), Financial Priorities Committee (2006-2008), Recording Committee (2002-2006; Chair, 2004-2005), Committee on Biochemistry (2000-present; Chair, 2006-2009 & 2010-2011), Lectures and Concerts Committee (1999-2001)

Undergraduate Mentees (* denotes Honors student)

Bowdoin College

Sade McLean*, 2023/2024 Effects of dwarf mistletoe infection on the structure of red spruce and white spruce stems

Ayanna Hatton*, 2023/2024 Drought responses of greenhouse-grown turfgrass

Nicky Yoong*, 2023/2024 Spatiotemporal variation in Gulf of Maine eelgrass photosynthetic physiology and epifaunal community [co-advised]

Cassidy Bateman, 2023 Creating a display depicting PFAS occurrence, risks and remediation

Kianne Benjamin, Documenting the recovery of coral off Dominica by photographic survey [co-advised]

Deva Holliman*, 2022/2023 Effects of origin environment on thermal performance of the temperate coral *Astrangia poculata* and algal symbiont *Breviolum psygmophilum*

Maya Chandar Kouba*, 2022/2023 How do long-term above-ground biomass dynamics vary between different forest stand types at Harvard Forest?

Mer Feero, 2022 Interpretive writing and schematic design revealing the impact of deer and Lyme disease on Monhegan Island

Kate Padilla, 2022 Fostering belonging in public science spaces through art and design

Jeremy Grosvenor*, 2021/2022 Solar-induced fluorescence and its relationship to photosynthesis at diurnal and seasonal time scales; 2020 The metabolic role of reactive oxygen species

Sara Nelson*, 2021/2022 Solar-induced fluorescence and its relationship to photosynthesis at diurnal and seasonal time scales; 2020 Explorations of the phenomenon of solar-induced fluorescence and its relationship to photosynthesis at the whole-forest scale

Benjamin Ross* 2021/2022 Examining the ability of remote sensing to characterize turf grass stress physiology

- David Bombard, 2021 Solar-induced fluorescence and its relationship to photosynthesis in turf grass subjected to drought and abscisic acid-induced stomatal closure; 2019 Solar-induced fluorescence (SIF) as an indicator of photosynthesis; 2018/2021 Exploring taxonomic variation in the wintertime photosynthetic strategies of Rocky Mountain conifers
- Anneka Williams*, 2020/2022 Conifer forest photosynthetic seasonality: exploring the effect of winter severity and the efficacy of different remote sensing methodologies
- Coleman Komishane, 2020 Explorations of the phenomenon of solar-induced fluorescence and its relationship to photosynthesis at the whole-forest scale
- Elena Sparrow, 2019 Remote sensing of Boreal forest productivity; 2019/2021 Exploring taxonomic variation in the wintertime photosynthetic strategies of Rocky Mountain conifers
- Dalia Tabachnik, 2019 Solar-induced fluorescence (SIF) as an indicator of photosynthesis
- Mikayla Kifer, 2019 A reading- and interview-based independent study of contemporary alternative agriculture
- Anna Blaustein*, 2018/2019 Analysis of nitrogen and protein content in *Brachypodium* seeds grown at elevated CO₂ can support nutritious grain production in the face of climate change
- Julian Garrison*, 2018/2019 Plastic stomatal response of common reed (*Phragmites australis*) to simulated anthropogenic disturbance
- Andrew Walter-McNeill, 2018/2019 Exploring taxonomic variation in the wintertime photosynthetic strategies of Rocky Mountain conifers
- Charlotte Nash, 2018/2019 Impacts of tidal restrictions on carbon sequestration in Maine tidal marshes
- Trevor Kenkel, 2016/2019 Photosynthetic responses of aquaponics-grown leafy crops to measurement conditions
- Hanna Baldecchi*, 2017/2018 The impact of eastern dwarf mistletoe on red spruce vs. white spruce tree vigor
- Sophia Lopez*, 2017/2018 Shifts in needle pigments as a photoprotective mechanism during winter downregulation of photosynthetic activity in subalpine coniferous trees
- Nora Hefner, 2016 Photosynthetic responses of different accessions of *Brachypodium sylvaticum* exposed to water stress
- Benjamin West*, 2015/2016 Examining functional roles for anthocyanins in plant leaves
- Sara Hamilton, 2015 Photosynthetic responses of different accessions of *Brachypodium sylvaticum*
- Michael Walsh*, 2013/2014 Functional implications of the reddening of the fruit-bearing stalks (peduncles) of elderberry (*Sambucus* sp.)
- John de Villier*, 2013/2014 Progressive effects of eastern dwarf mistletoe (*Arceuthobium pusillum*) parasitism on white spruce (*Picea glauca*) physiology (co-advised with Jaret Reblin)
- Nneka Nnatabeugo, Fall 2013 Energy dissipation as an alternative energy conversion pathway in elderberry peduncles
- Antigone Mitchell*, 2012/2013 Branching out: photosynthetic properties of *Prumnopitys taxifolia*, a divaricate New Zealand shrub
- Spencer Eusden*, 2011/2012 Examining the usefulness of a green laser for remote sensing of plant physiological status
- La'Shaye Ervin*, 2011/2012 Examining the extent of eastern dwarf mistletoe endophytic proliferation in two different host spruce species using PCR
- Peter Murphy, 2011/2012 *In situ* photosynthesis of entire dwarf-mistletoe infected white spruce branches
- Colin Ogilvie*, 2011/2012 Examining the extent of eastern dwarf mistletoe endophytic proliferation in two different host spruce species using PCR
- Elizabeth Tarr*, 2011/2012 *In situ* photosynthesis of entire dwarf-mistletoe infected white spruce branches
- William Stafstrom*, 2011/2012 Testing the photoprotective effect of adaxial anthocyanins in *Coleus*
- Allison Chan*, 2010/2011 White spruce physiology, growth and reproduction across its geographic range. 2009 Light capture efficiency of shade- and sun-acclimated balsam fir needles

- Ouda Baxter, 2010 Examining the superoxide scavenging capacity of stemmed and stemless maté
- Danielle Marias*, 2009/2010 Assessing light capture and photosynthesis in mistletoe-induced witches' brooms using a three-dimensional canopy model
- Shem Dixon, 2009 Construction and use of a gas exchange chamber for the analysis of gas exchange of whole witches' brooms
- Stephanie Schmiede, 2009 Empirical quantification of the effect of witches' brooms on white spruce light interception
- Cody Desjardins*, 2008/2009 The effect the hemlock woolly adelgid on forest soil biogeochemistry and soil microbial community
- Marie Sears*, 2008/2009 The effect of past and future predicted climate on photosynthetic acclimation and drought tolerance of eucalypts
- David Zonana*, 2008/2009 The effect of eastern dwarf mistletoe on host white spruce radial growth
- Nicolas Norton, 2009 Winter acclimation in eastern dwarf mistletoe-infected white spruce
- Benjamin Stormo*, 2007/2008 The influence of eastern dwarf mistletoe on the expression of senescence-related genes in host spruce foliage
- Nate Krah*, 2007/2008 Photoinactivation, photosynthesis, growth, and reproduction in an *Arabidopsis* genotype that cannot perform energy dissipation
- Carolyn Hricko*, 2007/2008 The impact of elevated CO₂ and warming on the gas exchange and leaf pigment composition of *Eucalyptus*; 2006 Physiological and genetic studies of eastern dwarf mistletoe and its spruce hosts
- Ryan Dunlavy, 2006/2007 The influence of eastern dwarf mistletoe infection on the hydraulic conductivity of white spruce stems; 2005 Effects of eastern dwarf mistletoe on the water status of host spruce
- Adam Hall, 2006 Physiological and genetic studies of eastern dwarf mistletoe and its spruce hosts
- Ross Butschek*, 2005/2006 Does water stress explain the contrasting effects of eastern dwarf mistletoe on red versus white spruce?
- Andrew Combs*, 2005/2006 Examining signal transduction pathways influencing ultrastructural acclimation in *Arabidopsis*; 2004 Acclimation of photosynthetic electron transport in loblolly pine exposed to elevated CO₂ at the Duke Forest FACE site
- Alla Lescure Smith*, 2005/2006 A molecular genetic examination of the role of ascorbate in chilling tolerance; 2005 Phylogeography of eastern dwarf mistletoe
- Jonathan Harris*, 2004 Effects of brown-tailed moth herbivory on the physiology and morphology of apple leaves (co-advised with Lindsay Whitlow); 2004/2005 Seasonal acclimation of cryoprotectants in two local red algae with differing freezing tolerance
- Ethan Galloway, 2004 The response of wild rice to nutrient amendment in Merrymeeting Bay
- Rose Kent, 2004 Acclimation of photoprotection in loblolly pine exposed to elevated CO₂ at the Duke Forest FACE site
- Lela Stanley*, 2003/2004 Host-specific genetic differentiation in eastern dwarf mistletoe
- Evangeline White*, 2003/2004 Characterization of *Arabidopsis thaliana* mutants lacking thylakoid-associated kinase activity (co-advised with Bruce Kohorn)
- Samuel Terry*, 2002 Identification of an unknown carotenoid from the parasitic plant eastern dwarf mistletoe; 2003/2004 A physiological examination of energy dissipation deficient *Arabidopsis thaliana* mutants under variable light environments
- Justin Hardison*, 2002/2003 Whole plant responses to chilling in transgenic cotton overexpressing ascorbate peroxidase
- Andrew Larson*, 2002/2003 Characterization of *Arabidopsis thaliana* mutants lacking thylakoid-associated kinase activity (co-advised with Bruce Kohorn)
- Bradley Graustein, 2002 Temperature effects on the reduction state of photosystem II in transgenic cotton overexpressing ascorbate peroxidase

- Matthew Hammond, 2002 Collaboration on a manuscript describing a laboratory exercise examining the antioxidant capacity of red wine and other common beverages
- Mary Miner*, 2001/2002 An examination of foliar antioxidant systems in *Arabidopsis thaliana* mutants lacking energy dissipation
- Nissa Lohrmann*, 2001-2003 Seasonal acclimation of antioxidants in two local red algae with differing stress tolerance
- Matthew Clark*, 2000/2001 Effect of glutathione reductase overexpression on free radical damage in transgenic and wild type cotton
- Gary Monteiro*, 2000/2001 Whole plant responses in transgenic cotton overexpressing glutathione reductase
- Molly Perencevich*, 2000/2001 Acclimatory effects on the catalytic properties of glutathione reductase from eastern white pine needles
- Kristin Shedd, 2000/2001 Chilling-induced changes to the reduction state of photosystem II in transgenic cotton overexpressing glutathione reductase
- Jessica Brooks, 2000 A floristic analysis of the Coastal Studies Center
- Laura Burkle*, 1999/2000 Effects of light environment and seasonally colder temperatures on photosynthesis in a native coniferous and a broad-leaved evergreen
- Emily Huhn*, 1999/2000 Physiology of eastern dwarf mistletoe and its effects on infested spruce
- Akane Uesugi*, 1999/2000 Seasonal variation in sunfleck utilization in an evergreen understory fern and an angiosperm
- Kristin Sigmond, 1999 Acclimation of photosynthesis to growth temperature in spring and winter wheat varieties

University of Colorado

- Brynn Orwig, 1997 Research on the response of sun- and shade-acclimated rainforest plants to exposure to high light
- Brian Albrecht, 1995 Developed an assay to quantify oxidative damage to proteins and lipids
- Dan Moeller, 1995 Research on the response of shade leaves to exposure to high light
- John Carradine, 1994 Developed an assay to quantify foliar ascorbate content

Invited Seminars

- “Forests in a changing world: as viewed from near and far” Bowdoin College Faculty Seminar Series, Brunswick, Maine, November, 2018
- “The splendor of the autumn foliage explained (or at least explored)” Central Maine Community College, Auburn, Maine, March, 2018
- “Leaf-scale pulse amplitude modulated (PAM) chlorophyll fluorescence emission: A primer on its measurement, interpretation, and potential relationship to remotely-sensed solar-induced fluorescence (SIF)” Remote Sensing Group, National Institute of Standards and Technology, Gaithersburg, Maryland, May, 2017
- “What’s killing white spruce along the Maine coast? Parasitic dwarf mistletoe and the legacy of pastureland formation and abandonment” Central Maine Community College, Auburn, Maine, May, 2017
- “Leaf-scale pulse amplitude modulated (PAM) chlorophyll fluorescence emission: A primer on its measurement, interpretation, and potential relationship to remotely-sensed solar-induced fluorescence (SIF)” Department of Biology, University of Utah, Salt Lake City, Utah, April, 2017
- “Highly conserved yet remarkably flexible: Leaf pigments, their roles in photoprotection, and their detection at multiple scales” Harvard Herbaria, Harvard University, Cambridge, Massachusetts, February, 2017
- “Leaf-scale pulse amplitude modulated (PAM) chlorophyll fluorescence emission: A primer on its measurement, interpretation, and potential relationship to remotely-sensed solar-induced fluorescence (SIF)” Wofsy Group, Earth and Planetary Sciences, Harvard University, Cambridge, Massachusetts, November, 2016

- “Mechanisms of mortality and the legacy of land use in dwarf mistletoe-infected spruce forests along the Maine coast” Middlebury College, Middlebury, Vermont, November, 2016
- “Decline of dwarf mistletoe-infected white spruce forests along the Maine coast: mechanisms of mortality and the legacy of land use” Arnold Arboretum – Harvard University, Boston, Massachusetts, 2015
- “Dual roles and death dealing: parasitic manipulation by dwarf mistletoe contributes to spruce mortality” Franklin & Marshall College, Lancaster, Pennsylvania, October, 2011
- “The same thing that makes you live can kill you in the end: photosynthetic compromises in dynamic light environments” Sydney Basin Ecophysiology Group, Macquarie University, Macquarie Park, Australia, March, 2011
- “Decline of mistletoe-infected white spruce forests along the New England coast: mechanisms of mortality and the legacy of land use” Massey University, Palmerston North, New Zealand, May, 2010
- “Decline of mistletoe-infected white spruce forests along the New England coast: mechanisms of mortality and the legacy of land use” Victoria University, Wellington, New Zealand, March, 2010
- “Decline of mistletoe-infected white spruce forests along the New England coast: mechanisms of mortality and the legacy of land use” University of Waikato, Hamilton, New Zealand, March, 2010
- “The same thing that makes you live can kill you in the end. Plants and light” University of New Mexico, Albuquerque, New Mexico, March, 2009
- “The same thing that makes you live can kill you in the end. Plants and light” University of Southern Maine, Portland, Maine, February, 2009
- “Light stress, energy dissipation & fruitful synergies among botanical subdisciplines” Bates College, Lewiston, Maine, February, 2007
- “Light stress, energy dissipation & fruitful synergies among botanical subdisciplines” University of Southern Maine, Portland, Maine, December, 2005
- “Light stress, energy dissipation & fruitful synergies among botanical subdisciplines” Texas Tech University, Lubbock, Texas, November, 2004
- “Can crop stress tolerance be enhanced via genetic engineering? Some results from cotton.” Norwich University, Norwich, Vermont. October, 2004
- “Can chilling tolerance be improved via genetic engineering? Some results from cotton.” Willamette University, Salem, Oregon. April, 2003
- “Can chilling tolerance be improved via transgenic overproduction of chloroplastic antioxidants? Some results from cotton.” University of California at Berkeley, Berkeley, California. February, 2003
- “Can chilling tolerance be improved via genetic modification of antioxidant systems? Results from cotton.” University of New Hampshire, Durham, New Hampshire. October 2002
- “Can stress tolerance be improved via genetic modification? Results from cotton.” Colby College, Waterville, Maine. November, 2001
- “Photosynthetic regulation during stress” Wellesley College, Wellesley, Massachusetts. June, 2000
- “Plant photoprotection: coping with too much of a good thing” Bates College, Lewiston, Maine. November, 1999
- “Photoprotection in plants” University of Southern Maine, Portland, Maine. March, 1999.
- “Plants and light: dealing with too much of a good thing” Western State College, Gunnison, Colorado. September, 1998

Professional Meetings Attended

- Ecological Society of America, 1996, 1999, 2000, 2005, 2010, 2013, 2015, 2017, 2021
- Beckman Symposium, 2021
- FAST [*Fluorescence Across Space and Time*] Workshop, 2019
- American Geophysical Union, 2018
- 12th Harvard University Plant Biology Symposium: Stomata, 2017

International Union of Forest Research Organizations: Mistletoes: Pathogens, Keystone Resources, and Medicinal Wonder, 2016
Gordon Research Conference: Multiscale Plant Vascular Biology, 2016
American Society of Plant Biologists, 2001, 2002, 2006, 2011, 2014
International Workshop on Anthocyanins, 2011
5th International Canopy Conference, 2009
Gordon Research Conference: CO₂ assimilation in plants: Genome to Biome, 2008
International Congress on Photosynthesis, 2001, 2004, 2007
International Union of Forest Research Organizations, 2006
Maine Biological and Medical Sciences Symposium, 2006
Northeast Section of the American Society of Plant Physiologists, 1999, 2002, 2004
Western Photosynthesis Conference, 1994, 1997, 2004
Northeast Section of the American Society of Plant Biologists, 2002
Gordon Conference on Biogenic Hydrocarbons and the Atmosphere, 2000
Guild of Rocky Mountain Population Biologists, 1992, 1997
American Society of Plant Physiologists, 1995
Gordon Conference on Carotenoids, 1995
Robertson Symposium on Chlorophyll Fluorescence, 1994
Society for the Study of Evolution, 1993

Oral and Poster Presentations (* indicates undergraduate)

Sole (or Lead) Presenter

- The molecular mechanisms of NPQ, the involvement of leaf pigments, and the fates of absorbed photons in summer and winter. FAST [*Fluorescence Across Space and Time*] Workshop. Hyytiala, Finland, February, 2019. (Oral)
- Divergent responses of white spruce and red spruce to eastern dwarf mistletoe infection along the coast of Maine. International Union of Forest Research Organizations: Mistletoes: Pathogens, Keystone Resources, and Medicinal Wonder. Ashland, OR. July, 2016. (Oral)
- Situating foliar anthocyanin accumulation among photoprotective mechanisms employed by plants in response to abiotic stress. American Society for Plant Biologists. Portland, OR. July, 2014. (Poster – with Bowdoin undergraduate co-authors)
- Testing the photoprotection hypothesis for foliar anthocyanin accumulation. Ecological Society of America. Minneapolis, MN. August, 2013. (Poster – with Bowdoin undergraduate co-authors)
- Situating foliar anthocyanin accumulation among photoprotective mechanisms employed by plants. International Workshop on Anthocyanins. Charlotte, NC. September, 2011. (Oral – with Bowdoin undergraduate co-author)
- Parasitic manipulation of host white spruce (*Picea glauca*) by eastern dwarf mistletoe (*Arceuthobium pusillum*). American Society of Plant Biologists. Minneapolis, MN. August, 2011. (Poster – with six Bowdoin undergraduate co-authors)
- Responses of two *Eucalyptus* species to industrial-age changes in atmospheric [CO₂] and temperature. Ecological Society of America. Pittsburgh, PA. August 2010 – (Poster – presenter, third author)
- Scaling the impacts of eastern dwarf mistletoe infection from hormone metabolism to whole-tree growth. 5th International Canopy Conference. Bangalore, India. October, 2009 - (Oral – with co-authors including R Dunlavy*, D Zonana*, R Butschek*, C Hricko* and A Hall*)
- The impacts of eastern dwarf mistletoe infection on host white spruce. Gordon Research Conference: CO₂ assimilation in plants: Genome to Biome. Biddeford, ME. August, 2008 (Poster – with co-authors including R Dunlavy*, R Butschek*, C Hricko* and A Hall*)
- Physiological impacts of eastern dwarf infection and developmental responses of host white spruce. International Congress on Photosynthesis, Glasgow, Scotland. July/August, 2007 (Poster – with co-authors including Ryan Dunlavy*, Ross Butschek*, Carolyn Hricko*, and Adam Hall*)

- Physiological impacts of eastern dwarf infection and developmental responses of host white spruce. International Union of Forest Research Organizations (IUFRO) Canopy Processes Workshop, New England. October, 2006 (Poster – with co-authors including Carolyn Hricko*, Adam Hall*, and Ross Butscek*)
- Electron transport and photoprotection in loblolly pine exposed to free-air CO₂ enrichment. American Society for Plant Biologists, Boston MA. August, 2006 (Poster – with co-authors including Andrew Combs*, Kalisa Myers*, Rose Kent*, and Lela Stanley*)
- Student-led investigative laboratories designed to examine the acclimation of photosynthesis and energy dissipation. American Society for Plant Biologists, Boston MA. August, 2006 (Poster – with Jaret Reblin as co-author)
- The role of proline in the freezing tolerances of two competing species of red algae. Maine Biological and Medical Sciences Symposium, Salisbury Cove, ME. April, 2006 (Oral – with Jonathon Harris* as co-author)
- The effects of land use history on forest responses to a native parasitic plant. USDA Managed Ecosystems Project Director's Meeting, Washington D.C. October/November, 2005 (Poster – with co-authors including R Dunlavey*)
- Photoprotection: From chloroplast biochemistry to plant form. Ecological Society of America. Montreal, Canada. August, 2005 (Invited oral session)
- Photoprotection, photosynthesis and growth in *Arabidopsis* genotypes with differing levels of PsbS expression. International Congress on Photosynthesis. Montreal, Canada. August/September, 2004 (Poster – with co-authors including S Terry*)
- Student-led investigative laboratories designed to examine the acclimation of photosynthesis and energy dissipation. International Congress on Photosynthesis. Montreal, Canada. August/September, 2004 (Poster – with Jaret Reblin as co-author)
- Recent reproductive costs reduce photosynthesis and lifetime growth in females of a dioecious neotropical tree. American Society of Plant Biologists – Northeast Section. Providence, RI. June, 2004 (Oral – with Nat Wheelwright as co-author)
- Student-led investigative laboratories designed to examine the acclimation of photosynthesis and energy dissipation. American Society of Plant Biologists – Northeast Section. Providence, RI. June, 2004 (Poster – with Jaret Reblin as co-author)
- Recent reproductive costs reduce photosynthesis and lifetime growth in females of a dioecious neotropical tree. Western Photosynthesis Conference. Pacific grove, CA. January, 2004 (Oral – with Nat Wheelwright as co-author)
- Effects of dwarf mistletoe, a native parasitic plant, on host spruce growth and survival. Faculty Seminar Series, Bowdoin College. December, 2002. (Oral - presented with Jaret Reblin)
- Seasonal changes in the response of photosynthesis and energy dissipation to lightflecks in *Mitchella repens* and *Dryopteris intermedia*. American Society of Plant Biologists. Denver, CO. August, 2002. (Poster - with co-authors including A Uesugi*)
- The response of transgenic cotton with elevated glutathione reductase activities to growth under chilling conditions. American Society of Plant Biologists – Northeast Section. Wellesley, MA. May, 2002. (Oral – with co-authors including G Monteiro*)
- Regulation of photosynthetic activity during chilling in cotton plants overproducing key antioxidant enzymes. International Congress on Photosynthesis. Brisbane, Australia. August, 2001. (Poster – with coauthors including G Monteiro* [second author & sole presenter])
- The effects of glutathione reductase overproduction during growth under chilling. American Society of Plant Biologists. Providence, Rhode Island. July, 2001 (Poster - with co-authors including G Monteiro*)
- Explorations into the effect of isoprene on membrane function: a search for the mechanism underlying isoprene thermoprotection. Gordon Conference on Biogenic Hydrocarbons and the Atmosphere. Ventura, California. February, 2000. (Oral - with co-authors)

- Investigating the biochemical effects of isoprene in relation to its role as a leaf thermoprotectant. Ecological Society of America. Spokane, Washington. August, 1999. (Poster – with co-authors)
- A search for the biochemical mechanism underlying the thermoprotective effect of isoprene. Northeast Section of the American Society of Plant Physiologists. Durham, New Hampshire. April, 1999. (Poster - with co-authors)
- Seasonal effects on antioxidant systems of *Mahonia repens* growing in three different light environments in the Colorado Rocky Mountains. Guild of Rocky Mountain Population Biologists. Crestone, Colorado. September, 1997. (Oral - with co-authors)
- The response of antioxidation and the xanthophyll cycle in *Vinca major* and *Cucurbita pepo* to long-term acclimation to different growth irradiances versus a sudden transfer from low to high irradiance. Sixth Western Photosynthesis Conference. Pacific Grove, California. January, 1997. (Oral - with co-authors)
- The photoprotective role of the xanthophyll cycle during exposure of understory plants to sunflecks in a subtropical rainforest and an open *Eucalypt* forest in Australia. Annual Meeting of the Ecological Society of America. Providence, Rhode Island. August, 1996. (Oral - with co-authors)
- Sunflecks and xanthophyll cycle-dependent energy dissipation in *Alocasia* in a subtropical rainforest. Annual Meeting of the American Society of Plant Physiologists. Charlotte, North Carolina. July/August, 1995. (Poster - with co-authors)
- Acclimation of xanthophyll cycle and ascorbate (Vitamin C) levels in leaves of a variety of plant species growing in different light environments. Gordon Conference on Carotenoids. Ventura, California. February, 1995. (Poster - with co-authors)
- Photoprotection and light acclimation in a subtropical rainforest. E.P.O. Biology Departmental Brown Bag Seminar. University of Colorado at Boulder. October, 1994. (Oral)

Others

- Tracking photosynthetic seasonality at needle and forest scales in pines experiencing mild winters. American Geophysical Union. San Francisco, California, December, 2023. (Poster – Hoyne Grosvenor* et al.)
- Photosynthetic Phenology of a Boreal Spruce Forest Observed through Optical Signals and Needle Physiology American Geophysical Union. San Francisco, California, December, 2023. (Poster – Nelson * et al.)
- The biological basis for using optical signals to track evergreen photosynthesis. NASA Arctic-Boreal Vulnerability Experiment. San Diego, California, January, 2023. (Poster – Pierrat et al.)
- From biology to physics to Earth-system science: making sense of optical signals for tracking the seasonality of photosynthesis in evergreen forests. American Geophysical Union. Chicago, Illinois, December, 2022. (Oral - Magney et al.)
- Characterizing hardware uncertainties and environmental effects on tower-based solar-induced fluorescence data. American Geophysical Union. Chicago, Illinois, December, 2022. (Poster - Marrs et al.)
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- Beyond APAR and NPQ: Factors coupling and decoupling SIF and GPP across scales. International Geoscience and Remote Sensing Symposium. Brussels, Belgium. July, 2021. (Oral – A. Porcar-Castell et al.)
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- Evaluating the roles of foliar anthocyanins in photosynthesis and photoprotection in an herbaceous plant with different leaf pigmentation patterns. Ecological Society of America. Portland, OR. August, 2017. (Poster – Reblin, West* & Logan).
- Limitations to winter photosynthesis of a subalpine coniferous forest in the Colorado Rocky Mountains. Ecological Society of America. Portland, OR. August, 2017. (Poster – second author [sole presenter]).
- Mechanisms of divergent responses of white and red spruce to eastern dwarf mistletoe infection. Harvard University Plant Biology Symposium: Stomata. Boston, MA. May, 2017. (Poster - Barnett, Des Marias & Logan)
- Impacts of eastern dwarf mistletoe on the stem hydraulics of red spruce and white spruce, two host species with different drought tolerances and responses to infection. Gordon Research Conference: Multiscale Plant Vascular Biology. Newry, ME. June, 2016. (Poster – Reblin & Logan [sole presenter])
- The impacts of the parasitic plant eastern dwarf mistletoe (*Arceuthobium pusillum*) on host photosynthesis and branch biomass partitioning in white spruce (*Picea glauca*). Ecological Society of America. Baltimore, MD. August, 2015. (Poster – Reblin, Logan, DeVillier*, Tarr* & Murphy*)
- Ground based remote sensing and physiological measurements provide insights into canopy optimization in arctic shrubs. American Geophysical Union. San Francisco, CA. December, 2014. (Oral – T. Magney et al.)
- Do asymmetric physiological responses to stress influence the effects of a parasitic plant on two host conifers with different ecophysologies? American Society for Plant Biologists. Portland, OR. July, 2014. (Oral – Reblin & Logan).

- Progressive impacts of parasitism by eastern dwarf mistletoe (*Arceuthobium pusillum*) on the physiology of white spruce (*Picea glauca*). American Society for Plant Biologists. Portland, OR. July, 2014. (Poster – J. DeVillier*, Logan & Reblin).
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- Photosynthesis of two eucalypts acclimates to growth temperature but not CO₂. Gordon Research Conference: CO₂ assimilation in plants: Genome to Biome. Biddeford, ME. August, 2008 (Poster – Ghannoum et al. including C Hricko*)
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- The effects of eastern dwarf mistletoe on the water relations of its hosts. Maine Biological and Medical Sciences Symposium, Salisbury Cove, ME. April, 2006 (Poster – R Butschek* and B Logan)
- Stress-induced ultra-structural cellular modifications in *Arabidopsis*. Maine Biological and Medical Sciences Symposium, Salisbury Cove, ME. April, 2006 (Oral – A Combs*, B Logan, B Demmig-Adams)
- Impact of eastern dwarf mistletoe infection (*Arceuthobium pusillum*) on the needles of red (*Picea rubens*) and white spruce (*P. glauca*): Photosynthesis, biochemistry and morphology. Ecological Society of America. Montreal, Canada. August, 2005 (Poster – J Reblin, B Logan, D Tissue)
- The role of cryoprotectants in the freezing tolerances of two competing species of red algae. Ecological Society of America. Montreal, Canada. August, 2005 (Poster – J Harris*, B Logan)
- Does photodamage to Photosystem II complexes control electron transport during photoinhibition and recovery? International Congress on Photosynthesis. Montreal, Canada. August/September, 2004 (Poster - D Kornyejev, B Logan, A Holaday)
- Previous-year reproduction reduces photosynthetic capacity and slows lifetime growth in females of a neotropical tree. Ecological Society of America. Portland, OR. August, 2004 (Oral – N Wheelwright and B Logan)
- Photosynthesis and photoprotection in *Agave americana* subjected to water stress at ambient and elevated CO₂ concentrations. American Society of Plant Physiologists – Northeast Section. Providence, RI. June, 2004 (S Terry*, B Logan, S Smith)
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- Temperature sensitivity of photosystem II (PSII) photoinhibition in cotton. American Society of Plant Biologists. Denver, CO. August, 2002 (D Kornyejev, B Logan, A Holaday)
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