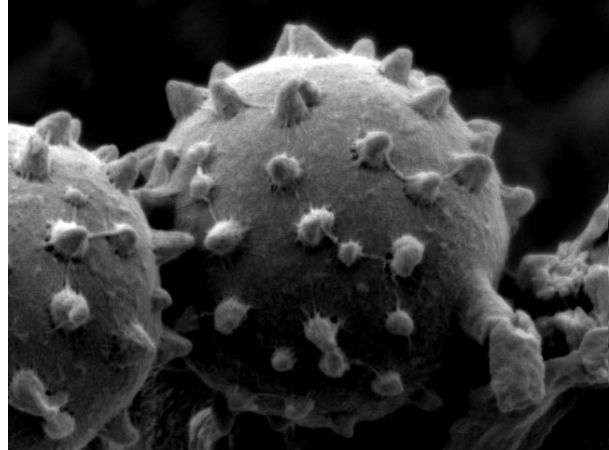


Curriculum Vitae

Scott T. Bates, Ph.D.
CIRES Visiting Fellow
University of Colorado at Boulder
Rm. 318 - CIRES Bldg.
Boulder, CO 80309

(303) 492-2099
scott.thomas.bates@gmail.com
www.azfungi.org/stbates/



Personal:

- Born 14 November 1965 (Bowling Green, OH, USA); married 11 October 1997 (Tonya R. Boschmann); two children (Anise Ferne, born 15 March 2005 & Ian Willow, born 16 April 2007)

Education:

- Doctor of Philosophy (Ph.D., Plant Biology, *Microbiology*) - May 2009 (*Magna Cum Laude*) - School of Life Sciences, Arizona State University, Tempe, AZ
- Master of Science (M.S., Plant Biology, *Mycology*) - December 2004 - School of Life Sciences, Arizona State University, Tempe, AZ
- Bachelor of Arts (B.A.) - May 1992 - Goshen College, Goshen, IN

Awards and Honors:

- Herbert M. Saylor Memorial Scholarship presented by the Sonoma County Mycological Society (May, 2004)
- ASU School of Life Sciences Initiative Program Grant (January, 2004)
- Michael A. Cichan Memorial Award presented by ASU School of Life Sciences (December, 2003)
- ASU Graduate and Professional Students Association (GPSA) Research Grant Awards (November, 2003)
- Sigma Xi Grants-In-Aid (April, 2003)

Grants:

- *Investigations of the Biological Soil Crusts and Associated Fungi at Grand Canyon-Parashant National Monument*, Grant # NPS H1200-04-0002. *Role:* collaborator; *PI:* Dr. T.H. Nash III; *Period:* 2006-2009

Professional Development and Experience:

Teaching:

- Teaching Assistant and Lecturer - PLB 400/401 - *Lichenology*, Arizona State University (spring semester: 2005, 2007 & 2009)
- Teaching Assistant and Lecturer - PLB 402 - *Mycology*, Arizona State University (spring semester: 2004 & 2007)
- Teaching Assistant - PLB 108 - *Introduction to Plant Biology* (traditional lab sections), Arizona State University (spring semester: 2003)
- Teaching Assistant - PLB 108 - *Introduction to Plant Biology* (online lab sections), Arizona State University (spring semester: 2003 & fall semester: 2003, 2005 & 2007)

Training Student Researchers:

- Sheetal Boosi (*Master's student*), ASU School of Life Sciences, Tempe, AZ molecular biology (fall, 2008)
- Jessica Groch (*undergraduate*), ASU School of Life Sciences, Tempe, AZ molecular biology (spring, 2008)
- Anne Barber (*undergraduate*), ASU School of Life Sciences, Tempe, AZ slime mold classification and general research (fall, 2007)
- Angel A. Garcia (*undergraduate*), Universidad Metropolitana, San Juan, PR molecular biology/ecology (summer, 2007)
- Xavier Arturo Lopez (*undergraduate*), Universidad Central del Ecuador, Quito, Ecuador systematic mycology (fall, 2006 - spring, 2008)
- Rebeca A. Guerro (*Master's student*), University of Texas, El Paso, TX molecular biology (summer, 2006)
- Samantha Standley (*undergraduate*), Arizona State University, Tempe, AZ molecular biology (spring, 2004)

Positions Held:

- Research Assistant NSF funded *Prokaryotic Diversity of Biological Soil Crusts in aridlands of North America* (eukaryotic extension, Doctoral dissertation project) ASU School of Life Sciences, Tempe, AZ (fall semester, 2006 & spring semester, 2008)
- Herbarium Staff ASU Lichen Herbarium (*voluntary*, June, 2004 - current)
- Lichen Identification Expert Forest Inventory and Analysis program, USDA Forest Service (May, 2004 - current)
- Coordinator American Bryological and Lichenological Society Lichen Exchange (*voluntary*, December, 2003 - November, 2005)
- Third Grade Teacher - ESL classroom, Osborn School District, Phoenix, AZ (1997 - 2002)
- Crew Chief High School Volunteer program, Student Conservation Association (summers, 1994 - 1996)
- Environmental Educator Elementary Environmental Education program, Frost Valley YMCA, Claryville, NY (1993-1994).
- Wilderness Trip Leader Teen Adventures program, Frost Valley YMCA, Claryville, NY (1993)
- English Language Instructor Centro de Estudios Inter-Americanos, Cuenca, Ecuador (1992 - 1993)

Meetings:

- Annual Meeting of the Mycological Society of America (MSA), State College, PA (August, 2008)
- Sixth Annual Meeting of the International Association for Lichenology (IAL), Asilomar, CA (July, 2008)
- Annual meeting of the Arizona Botanist, Desert Botanical Gardens, Phoenix, AZ (February, 2008)
- Biennial Conference of Research on the Colorado Plateau, Northern Arizona University, Flagstaff, AZ (November, 2005)
- Deep Hypha Group Meeting, University of Arizona, Tucson, AZ (March, 2005)
- Annual meeting of the Arizona Botanist, Desert Botanical Gardens, Phoenix, AZ (February, 2005)
- Annual meeting of the Mycological Society of America (MSA), University of North Carolina, Asheville, NC (July, 2004)
- Annual meeting of the Arizona Imaging & Microanalysis Society (AIMS), Arizona State University, Tempe, AZ (April, 2004)
- Annual meeting of the Mycological Society of America (MSA), Asilomar, CA (July, 2003)
- Arizona Nevada Academy of Science meeting (ANAS), Northern Arizona University, Flagstaff, AZ (March, 2003)

Workshops:

- First International Workshop on Tropical Lichenology, in conjunction with TICOLICHEN, Costa Rican Lichen Biodiversity Inventory, Las Cruces Biological Station (O.T.S. Organization for Tropical Studies), Costa Rica (October, 2004)
- Spring Fungi of the Sierra Nevada course through San Francisco State University's Summer Field Campus program (June, 1999 - 2002)

Field:

- Extensive field work in Arizona collecting lichen and macrofungi (2004 - current)
- Macrofungi of Galapagos Island, Santa Cruz, Ecuador (October, 2006)
- Biota survey of Lone Mountain, Parashant-Grand Canyon National Monument, AZ (May, 2005)
- Survey of lichens for the Parashant-Grand Canyon National Monument, AZ (May, 2003)

Services:

- Consulted Mycologist, for mushroom poisoning cases, veterinary clinics throughout the greater metropolitan Phoenix area (2007 - current)
- Production Editor/Website Manager, *Canotia* - a publication of the ASU Vascular Plant Herbarium, Tempe, AZ; <http://collections.asu.edu/herbarium/canotia.html> (2006 - current)
- Project Coordinator/Website Manager, Arizona Mycota Project; <http://www.azfungi.org/amp/> (2006 - current)
- Website Manager, A Checklist of Arizona Macrofungi and Slime Molds; <http://www.azfungi.org/checklist/> (2006 - current)

- Editorial Service, ad hoc reviewer for *USGS* (internal), *BMC Evolutionary Biology*, *Canotia*, *Journal of Arid Environments*, *Microbial Ecology*, *Mycologia*, and *Mycotaxon* (2005 - current)
- Consulted Biologist, ASU School of Life Sciences 'Ask a Biologist' website; <http://askbiologist.asu.edu> (2006 - 2009)
- Trainer, Lichen workshops for foresters, Forest Inventory and Analysis program, USDA Forest Service (2004 - 2007)
- Grant Reviewer, ASU Graduate and Professional Students Association (GPSA) Research Grant Awards (February, 2004)

Presentations:

Oral Presentations:

- Annual Meeting of the Mycological Society of America (MSA), State College, PA; entitled *Fungi associated with biological soil crusts in the Western United States using culture-independent methods* - S.T. Bates, T.H. Nash III and F. Garcia-Pichel (August, 2008)
- Sixth Annual Meeting of the International Association for Lichenology (IAL), Asilomar, CA; entitled *Investigation of fungal populations and diversity associated with biological soil crusts (BSCs) in the Western U.S. using culture-independent methods* - S.T. Bates, T.H. Nash III and F. Garcia-Pichel (July, 2008)
- Fifth Annual Arizona Botanist Meeting, Phoenix, AZ; entitled *Fungal Diversity in Arizona - What can we expect? What we know?* (February, 2008)
- First Annual meeting - ASU researchers Biological Crust Day, Tempe, AZ; entitled *Fungi Associated with Biological Soil Crusts: Assessing Diversity by Culture-Independent Methods* (December, 2007)
- Eighth Biennial Conference of Research on the Colorado Plateau, Flagstaff, AZ; entitled *Biological Soil Crusts and the Pursuit of Novel Fungal Diversity* (November, 2005)

Poster Presentations:

- Arizona State University School of Life Sciences Fifteenth Annual Undergraduate Research Symposium, Tempe, AZ; entitled *Lichen biodiversity in northeastern Arizona* - A.C. Barber, K.G. Sweat, S.T. Bates and T.H. Nash III (March, 2008)
- Annual meeting of the Mycological Society of America (MSA), Asheville, NC; entitled *Arizona members of the Geastraceae and Lycoperdaceae (Basidiomycota, Fungi): monograpy, phylogeny and spore ultrastructure* - S.T. Bates, R.W. Roberson and D.E. Desjardin (July, 2004)
- Annual meeting of the Arizona Imaging & Microanalysis Society (AIMS), Tempe, AZ; entitled *Basidiospore ultrastructure in gastroid fungi: Assessing phylogenetically informative characters and creating utilitarian taxonomy* - S.T. Bates, R.W. Roberson, M.F. Wojciechowski and D.E. Desjardin (April, 2004)
- Annual meeting of the Mycological Society of America (MSA), Asilomar, CA; entitled *Arizona Puffballs and Earthstars (Lycoperdaceae and Geastraceae, Basidiomycota, Fungi)* - S.T. Bates, R.W. Roberson and D.E. Desjardin (July, 2003)
- Arizona Nevada Academy of Science meeting (ANAS), Flagstaff, AZ; entitled *Arizona Puffballs and Earthstars* - S.T. Bates, R.W. Roberson and D.E. Desjardin (March, 2003)

Public Talks and Invited Lectures:

- *Fungal Communities Associated with Biological Soil Crusts in the Western United States: A Culture-independent Approach* - Division of Mathematical and Natural Sciences Seminar Series, ASU West Campus, Phoenix, AZ (*invited* - April, 2009)
- *Arizona Fungi: What Do They Look Like and Why Do They Matter?* - Arizona Native Plant Society, Phoenix, AZ (*invited* - April, 2006)
- *Dark Secrets: Fungi Associated with Biological Soil Crusts* - ASU School of Life Sciences graduate student "Brown Bag" lecture series, Tempe, AZ (*invited* - March, 2006)
- *Southwestern puffballs and earthstars: monography, phylogeny and spore ultrastructure in the Lycoperdaceae and Geastraceae* - Sonoma County Mycological Society, Santa Rosa, CA (*invited* - September, 2004)
- *Arizona members of the Geastraceae and Lycoperdaceae (Basidiomycota, Fungi)* - USDA Systematic Botany and Mycology Laboratory, Beltsville, MD (February, 2004)
- *Puffballs and Earthstars: Arizona, Gasteromycetes and History* - San Diego Mycological Society, San Diego, CA (*invited* - January, 2004)
- *Baselines, Biodiversity and Conservation: Arizona Puffballs and Earthstars* ASU - Conservation Club, Tempe, AZ (*invited* - October, 2003)
- *The Mushrooms of Northern Arizona* - The Flagstaff Arboretum, Flagstaff, AZ (*invited* - August, 2003)

Workshop Presentations:

- *Lichens Communities as Biomonitors, Applications for Forest Inventory and Analysis (FIA)* - USDA Forest Service Forest Inventory and Analysis program forester training session, Durango, CO (May, 2009)
- *Lichens, Biomonitors, and Forest Inventory and Analysis (FIA)* - USDA Forest Service Forest Inventory and Analysis program forester training session, Ft. Collins, CO (May, 2007)

Publications (peer-reviewed):

- **Bates, S.T.**, F. Farruggia, E. Gilbert, R. Gutierrez, D. Jenke, E. Makings, E. Manton, D. Newton, and L.R. Landrum. 2009. Vascular Plants of Arizona: Solanaceae. Part II: Key to the genera and *Solanum* L. *Canotia* - *in review*.
- Soule, T., I.J. Anderson, S.L. Johnson, **S.T. Bates** and F. Garcia-Pichel. 2009. Archaeal populations in biological soil crusts from arid lands in North America. *Soil Biology & Biochemistry* - *in press*.
- **Bates, S.T.**, R.W. Roberson and D.E. Desjardin. 2009. Arizona gasteroid I: *Lycoperdaceae* (*Agaricales*, *Basidiomycota*). *Fungal Diversity* 37: 153-207.
- **Bates, S.T.** and F. Garcia-Pichel. 2009. A culture-independent study of free-living fungi in biological soil crusts of the Colorado Plateau: their diversity and relative contribution to microbial biomass. *Environmental Microbiology*. 11(1): 56-67.
- **Bates, S.T.** and A. Barber. 2008. A preliminary checklist of Arizona slime molds. *Canotia* 4(1): 8-19.

- Hosaka, K., **S.T. Bates**, R.E. Beever, M.A. Castellano, W. Colgan, III, L.S. Dominguez, E.R. Nouhra, J. Geml, A.J. Giachini, S.R. Kenney, N.B. Simpson, J.W. Spatafora and J.M. Trappe. 2006. Molecular phylogenetics of the gomphoid-phalloid fungi with the establishment of the new subclass Phallomycetidae and two new orders. *Mycologia* 98(6): 949-959.
- **Bates, S.T.**, G.S.N. Reddy and F. Garcia-Pichel. 2006. *Exophiala crusticola* anam. nov. (affinity *Herpotrichiellaceae*), a novel black yeast from biological soil crusts in the western United States. *International Journal of Systematic and Evolutionary Microbiology* 56: 2697-2702.
- **Bates, S.T.** 2006. A preliminary checklist of Arizona macrofungi. *Canotia* 2(2): 47-78.
- Sweat, K.G., W.A. Iselin, **S.T. Bates** and T.H. Nash III. 2004. The lichens of Parashant National Monument, Arizona: A preliminary study. *Journal of the Arizona-Nevada Academy of Science* 37(2): 85-90.

Publications (non-peer-reviewed):

- Bungartz, F., F.I. Nugra-Salazar, X. Arturo-Lopez, F. Ziemmeck and **S.T. Bates**. 2008. Plantas no vasculares en Galapagos (liqueses, briofitos y hongos): Nuevos registros, amenazas y potencial como bioindicadores una primera evaluacion. Pp. 147-152. In: *Informe Galapagos 2007-2008*. Puerto Ayora, Galapagos, Ecuador.
- **Bates, S.T.** 2006. The ABLs lichen exchange: history and procedure. *Evansia* 23(2): 43-44.

Professional Affiliations:

- American Bryological and Lichenological Society
- Arizona Mushroom Club
- Arizona Nevada Academy of Science
- North American Mycological Association
- Mycological Society of America
- Sigma Xi
- Sonoma County Mycological Association

Language:

- Proficient in Spanish