# Thomas J. Volk, Ph.D. Curriculum vitae

# PERSONAL DATA

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Professor of Biology, University of Wisconsin- La Crosse Office address: Dept. of Biology. 3024 Cowley Hall. University of Wisconsin-La Crosse, La Crosse WI 54601 Internet World Wide Web Page **<TomVolkFungi.net**>

# **EDUCATION**

Postdoctoral Research Mycologist with Dr. Harold H. Burdsall, Jr., USDA Forest Products Lab, Madison Nov. 1989-August 1996 Postdoctoral Research Associate with Dr. Thomas J. Leonard, University of Wisconsin- Madison, June 1988-December 1989 Ph.D., Botany (minor Genetics) University of Wisconsin-Madison 1988 with T. J. Leonard "Experimental Studies on the Morel" Bachelor of Science in Botany: Ohio University, Honors Tutorial College, Athens, OH, June 1980, Die Date Komme, "With Highest Honors" (Summe sum Loude)

Phi Beta Kappa, "With Highest Honor" (Summa cum Laude).

# **RESEARCH AND PROFESSIONAL EXPERIENCE**

August 2002-present Professor of Biology, University of Wisconsin-La Crosse.

2003 Recipient of the Weston Award for Excellence in Teaching Mycology, from the Mycological Society of America.
2005 Recipient of the Award for Outstanding Contributions to Amateur Mycology, North American Mycological Association

August 1999-August 2002 Associate Professor of Biology, University of Wisconsin-La Crosse. Tenure awarded August 2000.

August 1996- August 1999 Assistant Professor of Biology and Microbiology, University of Wisconsin-La Crosse.

*May 1996-2002* Honorary Fellow, University of Wisconsin-Madison, Dept. of Botany. *May 1995-May 1996* Adjunct Assistant Professor, University of Wisconsin-Madison, Dept. of Botany.

*November 1989-August 1996* Research Mycologist, Center for Forest Mycology Research, USDA Forest Products Laboratory, Madison, WI, with Dr. Harold H. Burdsall, Jr. Term (temporary) Position. Systematics, culture, cytology, ecology, and genetics of wood-rotting basidiomycetes, especially Agaricales, Corticiaceae and Polyporaceae *sensu lato*. Also isolation and identification of ascomycetous and deuteromycetous fungal contaminants on imported logs in conjunction with APHIS. Received Certificates of Merit May 1993, December 1995. Collaborated with visiting scientists from tropical countries (Indonesia, Venezuela, Nigeria, China, and Malaysia) to culture and identify wood decay fungi from those areas. Supervised two undergraduate thesis projects. Interaction with the public in answering questions about fungi. Published a book and presently writing a monograph of north temperate species of *Armillaria*.

- *May 1988-1993* Research Collaborator, UW-Madison Botany Department, Dr. Thomas J. Leonard. Continued work on the morel, and genetics and cultivation of shiitake and *Pleurotus*.
- September 1984- Sept. 1989 Laboratory manager *de facto*, fungal genetics and mycology laboratories of Dr. Thomas J. Leonard. Duties included supervision, advising, and training of nine undergraduate research participants, supervision and advising of work-study and hourly workers, ordering equipment and supplies, and general laboratory management.
- *February 1984-June 1988* Research Assistant. UW-Madison Botany Department with Dr. Thomas J. Leonard, "Experimental studies on the morel."
- September 1980-Feb. 1984 Research Assistant. UW-Madison Botany Department with Dr. Thomas J. Leonard, "Genetics of fruiting body and mound (tumor-like growth) formation in the basidiomycete *Schizophyllum commune*."
- January-June 1980 Undergraduate Research. Ohio University, Dr. Irwin Ungar, "The effects of salt concentration on the germination of seeds of the halophyte Salicornia europa."
- *August-December, 1979* Undergraduate Research Participant. Argonne National Laboratory, Argonne, Illinois. "The effect of pH on Nitrogen fixation rates of birdsfoot trefoil in coal spoils from a land reclamation site in southern Illinois."

**Ohio University**, Athens, OH, Honors Tutorial College, Bachelor of Science in Botany, 1980. SCHOLARSHIPS AND AWARDS AT OHIO UNIVERSITY: Manasseh Cutler Freshman Scholarship, 1976-1977; Continuing Student Scholarships, 1978-1980; Botanical Society of America, "Young Botanist Award," 1980; Thomas N. Wolfe Post-Baccalaureate Scholarship for Botanical Science, 1980; Graduated Phi Beta Kappa, June 1980 Bachelor of Science in Botany "With Highest Honor" (*Summa cum Laude*).

# **TEACHING EXPERIENCE**

## University of Wisconsin - La Crosse

- Introductory Mycology. Biology 412/512 Graduate/advanced undergraduate level lecture, laboratory, and field course that surveys all the major groups of fungi (and relatives) in terms of anatomy, morphology, ecology, systematics, physiology, genetics, pathology and evolutionary relationships. I made major revisions of the lab manual I designed for this course and trained teaching assistants. Students collect fungal specimens and cultures. (10-24 students) Fall 1996-present
- Medical Mycology. Biology 413/513 A study of the yeasts and molds pathogenic to humans and other animals. Emphasis on lab techniques for isolation and identification of pathogenic fungi. (15-38 students) Spring 1997-present
- Advanced Mycology Discussions of primary literature, continued fungal identification, several forays. 10 students. Fall 2004
- **Plant-Microbe Interactions.** Biology 454/554 Survey of the fungi, bacteria, viruses and nematodes that interact with plants as parasites (plant pathogens) or mutualists. Includes macroscopic, cellular and molecular level of interactions. (5-10 students) Spring 1999, 2000, 2002, 2004
- **Food and Industrial Mycology** Exploitation of fungal life cycles for the production of food and industrial chemicals, as well as detrimental effects of fungi on those products. (10-12 students) Spring 2005
- Latin and Greek for Scientists BIO 390. I developed and taught this course for graduate students and seniors on the origins of scientific terminology. This is now a sophomore level course, typically with 30-35 students /year. Spring 2000-present
- Introductory Biology. Biology 101 Lab Instructor. (25-30 students per lab) Fall 1996 Plant Biology. Biology 204 . Responsible for entire course Fall 2004. Lab Instructor almost all other semesters until Spring 2006. Also presented several guest lectures each semester.. (70-100 students, 15-25 students per lab)
- Organismal Biology BIO 203 Team taught., spring semesters I was responsible for about half the lectures (100-110 students) Spring 2007-present
- Genetics Biology 306. Responsible for 3 labs. (20 students each lab) Fall 2006
- Guest Lectures Algal Ecology, Nutrition, Aquatic Microbial Ecology, Life Cycle Strategies

# **University of Wisconsin- Madison**

- Introductory Mycology: Botany/Plant Pathology 332. Undergraduate/graduate level course. See above paragraph for course content. I taught this course 7 times at UW-Madison, responsible for all aspects of the lecture and lab. 20-24 Students Fall 1994 LECTURER. 1988 FACULTY ASSISTANT Fall 1986 TEACHING ASSISTANT AND PROJECT ASSISTANT Spring 1986 LECTURER Fall 1992, 1990 GUEST LECTURER In charge of all aspects of graduate/advanced undergraduate level course. Presented all lectures and laboratories, supervised and trained course preparation specialist, supervised Teaching Assistant. Major course modifications included student collections of fungi and training in culturing techniques. Feb.-June, 1985 Introductory Mycology (Botany/Plant Pathology 332)-- Took over class with the formal title of "Teaching Assistant" (although duties were those of Lecturer, Course Preparer, and Teaching Assistant) on one day's notice after Dr. William Whittingham, the professor in the course, died suddenly. I was responsible for all of the lab and 1/3 of the lectures
- Introductory Botany 100 Non-biology majors lecture/lab course surveying the plant and fungal kingdoms and relationships to humans and economic importance. I taught this course both as a Lecturer and as a Teaching Asst. 150-200 Students. Fall Semester 1991 LECTURER and COURSE ADMINISTRATOR. . I was responsible for 25% of the lectures, plus all exam preparation and grade assignments, supervision of two Teaching Assistants and a lab preparation specialist, contact instructor and advisor for students, and was coordinator between lecturers in the course. Spring 1986 Guest Lecturer (4 Lec.)
- General Botany 130 Botany Majors lecture and lab course emphasizing the diversity of the plant and fungal kingdoms including their ecology, physiology, biochemistry, systematics, anatomy, morphology, and genetics. I taught this course in its entirety as Lecturer, and earlier as a Teaching Assistant under Dr. Ray Evert. 150-175 Students Fall 1989 LECTURER. Presented all lectures for the course, set lab content, supervision of six teaching assistants and a lab preparation specialist, as well as course administrative duties
- Introductory Biology 151/152 Biology majors course emphasizing all aspects of living organisms, including anatomy, morphology, physiology, systematics, biochemistry, genetics, and ecology. I gave about 12 guest lectures in this course sequence, and at one time was a Teaching Assistant. 200-250 Students Biology 151 *Fall 1989* Guest Lecturer. (3 lectures) Plant anatomy and physiology portions of course Biology 152 Spring 1989 Guest Lecturer. (10 Lectures) Plant anatomy and physiology portions of course. 1986 4 lectures
- Plant Physiology: Botany 500 Botany majors undergraduate/graduate course (with laboratory) emphasizing experimental approaches to the physiology and biochemistry of plants. I was a Teaching Assistant for this course. 30-40 Students
- Experimental Mycology: Botany/Bacteriology 554 Graduate/undergraduate course in fungal physiology, emphasizing the uses of fungi as tools for research and industry. I was the Teaching Assistant de facto for this course taught by Thomas J. Leonard, and I gave several lectures in the course. 15-20 Students
- August 1980-May 1984 Teaching Assistant Experience: TEACHING ASSISTANT in Introductory Botany 100 twice (non-majors), General Botany 130 (majors), Introductory Biology 151 (majors), Mycology (Botany/Plant Pathology 332) twice, and Plant Physiology (Botany 500). Teaching Assistant *de facto* in Experimental Mycology (Botany/Bact. 554).

Other guest lectures in courses at other universities:

- May 2004 Developed and taught a special topics course with Glen Stanosz at the UW-Madison Dept. of Plant Pathology: Spring Fungi of Wisconsin. Involved a Sunday foray and Monday lab identification session. May 16-17, 2004
- April 2000 Biochemistry, Lac Courte Oreilles Ojibwe Community College "Human Fungal Diseases of the North Woods" April 1991 "Plants and People" course. Ohio University. Athens, OH "Morels and other edible fungi."
- December 1990 Introductory Mycology class, University of Southern Mississippi "Culture and identification of wood-rotting fungi and their use in the classroom.'

# **PUBLICATIONS**

I have created and maintain an internet **World Wide Web page** <http://TomVolkFungi.net> that contains links to my Images for Teaching Mycology, 1000+ downloadable images of fungi from all taxonomic groups. My main page is downloaded 8000-20,000 times per month by people from all over the world, with more than 144,000 hits in the past year and more than 950,000 times in the past 10 years. The site also has a "Fungus of the Month" as well as an extensive introduction to the Kingdom Fungi. I have received email from every continent, including Antarctica, regarding my web page. My "Fungi that are necessary for a merry Christmas" page was the featured web site in the Chronicle of Higher Education, Dec 19, 1997. Entire site featured in the Chronicle of Higher Education March 1998. Named as one of the 500 "Best of the Web" in "The Web" magazine, Feb. 1998. Links2Go Key Resource Award July 1998, ACS (Aspire Communications Service) Link of the Day Oct 22, 1998. Discover It! -The Best of the Web. January 15, 1999. Cool image of the Day March 24, 1999. from dailyimage.com. Openhere.com, a website for family-oriented links. Mullein Award for Nature Web Excellence. <htp://www.main.nc.us/naturenotebook.> NetMom Approved 2001, The Internet Kids & Family Yellow Pages www.netmom.com. Featured in "Biology Teacher," October 2004. Science magazine "Cool Images" site February 5, 1999.

Gusse, Adam and **Thomas J. Volk.** 2008. Mycorestoration: solving ecological problems with fungi. Invited chapter, McGraw-Hill Yearbook of Science & Technology. *In press* 

Gusse, Adam and **Thomas J. Volk.** 2007. Bioconversion by fungal enzymes, the transforming toxic avengers of the twenty-first century. Invited chapter, McGraw-Hill Yearbook of Science & Technology. pp. 90-93

Burgess, Joshua, William Schwan, and **Thomas J. Volk.** 2006. PCR based detection of DNA from the human pathogen *Blastomyces dermatitidis* from natural soil samples. Medical Mycology 44:741-748.

Gusse, Adam, Paul Miller, and **Thomas J. Volk.** 2006. White-Rot Fungi Demonstrate First Biodegradation of Phenolic Resin. Environmental Science & Technology 40:4196-4199

Czederpiltz, D. L. L.,K. Wikler, M. Rademacher, **T. J Volk,** Y., Hadar, and J. Micales, 2004. Biodiversity of wood-inhabiting fungi in Israeli pine forests. In *Diversity, Ecology and Systematics of Fungi in Forest Ecosystems*. Editor: Cathy Cripps. Memoirs of the New York Botanical Garden Press 89:191-202

Volk, Thomas J. 2004. Smut on the Internet. MUSHROOM NEWS 52(2):24-26.

Volk, Thomas J. 2003. Teaching medical mycology to graduates and undergraduates. INOCULUM 54(4): 2-10

Volk, Thomas J. 2002. The Humongous Fungus—Ten years later INOCULUM 53 (2): 4-8

**Volk, Thomas J.** and John W. Rippon, 2001. "Eating Mushrooms: Death, Ecstasy or Gourmet's delight" Chapter 17 pp. 365-383 in "Trichomycetes and other fungal groups: Robert W. Lichtwardt Commemoration Volume". Ed. J.K. Misra and Bruce W. Horn. Enfield, NH. Science Publishers.

Czederpiltz, Daniel L., **Thomas J. Volk**, and Harold H. Burdsall, Jr. 2001. Field observations and inoculation experiments to determine the nature of carpophoroids associated with *Entoloma abortivum* and *Armillaria*. MYCOLOGIA **93**: 841-851.

**Volk, Thomas J.** 2001. "Fungi: the threads that keep ecosystems together." pp. xi-xiii. Foreword of "THE FUNGI" 2<sup>nd</sup> edition. M.J. Carlile, S.C. Watkinson, and G.W. Gooday. London: Academic Press

**Volk, Thomas J.** 2001. Poster Sessions as teaching and learning tools in Mycology courses. MICOLOGIA APLICADA INTERNATIONAL **13(1):** 45-49

Volk, Thomas J. 2001. "Fungi" --invited chapter in THE ENCYCLOPEDIA OF BIODIVERSITY Vol. 3: 141-163. Academic Press.

**Volk, Thomas J.** 2000. Polypore Primer: An introduction to the characters used to identify poroid wood decay fungi. MCILVAINEA **14** (2): 74-82

Volk, Thomas J. and Karen Nakasone, 1999. The changing nature of fungal names and systematics. MCILVAINEA 13(2):59-68.

Banik, Mark T., Harold H. Burdsall, Jr. and **Thomas J. Volk**. 1998. Identification of groups within *Laetiporus sulphureus* in the United States based on RFLP analysis of the nuclear ribosomal DNA. FOLIA CRYPTOGAMICA ESTONIA **33**: 9-14

Volk, Thomas J. and John W. McCain. 1998. Mushrooms and Other Fleshy Basidiomycetes. Slide set with accompanying text for the American Phytopathological Society, ISBN 0-89054-226-0. Includes 63 slides and eight pages of explanatory material.

Volk, Thomas J. 1998. Naming the Polypores: Why Polyporus has been split into more than 100 genera. MYCOPHILE 39(2):1-3.

**Volk, Thomas J.**, Mary Ellen Kozak, & Joseph Krawczyk. 1997. Ecological guides to the cultivation of edible mushrooms. MUSHROOM NEWS **45** (**5**):26-36.

Burdsall, Harold H., Jr., **Thomas J. Volk**, and Joseph F. Ammirati, Jr. 1996. *Bridgeoporus*, a new genus to accommodate *Oxyporus nobilissimus*. MYCOTAXON **60** :387-395

Banik, Mark T., **Thomas J. Volk**, and Harold H. Burdsall, Jr. 1996. *Armillaria* species on the Olympic Peninsula of Washington state, including confirmation of North American biological species XI. MYCOLOGIA **88**:492-496.

Volk, Thomas J., Harold H. Burdsall, Jr. and Mark T. Banik. 1996. *Armillaria nabsnona*, a new species from western North America. MYCOLOGIA **88**:484-491

Miller, Orson K., **Thomas J. Volk**, and Alan Bessette. 1996. A new genus, *Leucopholiota*, in the Tricholomataceae (Agaricales) to accommodate an unusual taxon. MYCOLOGIA **88**: 137-139.

**Volk, Thomas J.** and Harold H. Burdsall, Jr. 1995. Nomenclatural study of *Armillaria* and *Armillariella* species (Basidiomycotina, Tricholomataceae) Fungiflora, Oslo, Norway: SYNOPSIS FUNGORUM **8**, 121 pp. ISBN 82-90724-14-4

Rodriguez, Carmen, Harold H. Burdsall, Jr. and **Thomas J. Volk.** 1995. Wood-decay fungi of the state of Bolivar in southeastern Venezuela. MYCOTAXON **53**:377-389.

Ammirati, J., S.Ammirati, L.Norvell, T.O'Dell, M.Puccio, M.Seidl, G.Walker, Puget Sound Mycological Society, S.Redhead, J.Ginns, H.Burdsall, **T.Volk**, and K.Nakasone. A Preliminary report on the fungi of Barlow Pass Washington. 1994. MCILVAINEA **11(2)**:10-33.

Volk, Thomas J., Harold H. Burdsall, Jr., and Keith Reynolds. 1994. Checklist and host index of wood-inhabiting fungi of Alaska. MYCOTAXON 52 (1):1-46.

Burdsall, Harold H., Jr. and Thomas J. Volk. 1993. The state of taxonomy of the genus Armillaria. MCILVAINEA 11:4-12

Darmono, T.W., Harold H. Burdsall, Jr. and **Thomas J. Volk**. 1993. Interfertility among isolates of *Armillaria tabescens* in North America. SYDOWIA **44**:105-116.

Volk, Thomas J. 1993. Alliteration Accidental? SCIENCE 259:295.

**Volk, Thomas J.**, Thomas J. Leonard and Lin Bin. 1992. [Cytological studies of morels.] Guo Wai Shi Yong Jun [CHINESE JOURNAL OF FOREIGN RESEARCH ON EDIBLE MUSHROOMS] **3**:42-46. in Chinese.

Leonard, Thomas J. and **Thomas J. Volk.** 1992. Production of Specialty Mushrooms in North America: Shiitake and Morels. *in* Frontiers in Industrial Mycology G.F. Leatham, ed. New York: Chapman & Hall, pp.1-23.

Volk. Thomas J., 1991. Understanding the Morel Life Cycle: Key to Cultivation. MCILVAINEA 10 (1): 76-81.

**Volk, Thomas J.** and Thomas J. Leonard. 1990. Cytology of the life cycle of *Morchella*. MYCOLOGICAL RESEARCH **94**: 399-406.

Volk, Thomas J. 1990. The current state of morel cultivation. MUSHROOM NEWS 38 (8): 24-27.

**Volk, Thomas J.** and Thomas J. Leonard. 1989. Physiological and environmental studies of sclerotium formation and maturation in *Morchella*. APPLIED AND ENVIRONMENTAL MICROBIOLOGY **55**: 3095-3100.

Volk, Thomas J. and Thomas J. Leonard. 1989. Experimental studies on the morel. I. Heterokaryon formation between monoascosporous strains of *Morchella*. MYCOLOGIA **81**: 523-531.

### MANUSCRIPTS IN PREPARATION

- Harbin, Marsha, Bernadette O'Reilly and Thomas J. Volk. The relationship of *Morchella* with plant roots.
- Volk, Thomas J. Virtual Mushrooms: A Guide to Mushrooms and other fungi of North America. Princeton University Press. 600 pages large format, with accompanying CD-ROM. Jan 2009
- Westmoreland, Sean and Thomas J. Volk. A study of the mycorrhizal fungus Hydnellum in North America
- Kelsea Jewell and **Thomas J. Volk.** Antagonism between the killer yeast *Candida glabrata* Y55 and various *Candida albicans* isolates
- Volk, Thomas J. and Harold H. Burdsall, Jr. Monograph of North American species of Armillaria.

# INVITED DEPARTMENTAL SEMINARS

- November 2007 University of Wisconsin-Madison, Department of Plant Pathology. "Plant Pathology vs. Medical Mycology: Battle of the Fungi"
- November 2007 University of North Carolina Pembroke, Department of Biology. "Medical Mycology: the dark side of Mycology" Also led a mycological foray for mycology class and the general public, Cape Fear Botanical Garden, Fayetteville
- December 2005 University of Florida, Department of Microbiology and Cell Science. "Pathogens and Plastics; the ecological niche of the human pathogen Blastomyces and biodegradation of phenolic resin plastics with Phanerochaete."
- November 2004 University of Toronto, Dept. of Botany, "The life cycle of Morchella: their relationship with plant roots"
- October 2004 University of Washington, Seattle, Dept of Forestry. 'shrooms in da 'hood: the impact of fungi on urban and suburban forestry
- October 2004 Linfield College, McMinnville OR, "The life cycle of Morchella: the relationship of morels with plant roots"
- September 2004 Youngstown State University, OH, Dept. of Biology. "Determining the ecology of Blastomyces dermatitidis, a systemic fungal pathogen of humans, using a rapid PCR-based system "
- November 2003 Missouri Botanical Garden/ St. Louis Community College-Meramec. "Fungi associated with chestnut trees."
- April 2002 University of Wisconsin- La Crosse, Symposium on Industrial and Fermentation Microbiology "Fungal Proteins and Other Products: Feeding the World and Making it Healthier"
- November 2001 Harvard University, Department of Organismal and Evolutionary Biology. "The life cycle of Morchella: the relationship of morels with plant roots"
- October 2001 University of Wisconsin- La Crosse, "Magical Mushrooms, Mischievous Molds: The impact of fungi on humans and history" part of a series on The Environment and Humans
- May 2001 University of California- Davis, Department of Plant Pathology, "Midwestern Mycorrhizal Morels"
- November 2000 Oregon State University Dept of Forestry/ US Forest Service Forestry Sciences Laboratory "Midwestern Mycorrhizal Morels"
- November 2000 Portland State University Department of Biology "The relationship of morels with the roots of plants"
- October 2000 Minnesota State University-Mankato, Department of Biology "Forest Fungi of Minnesota"
- April 2000 Lac Courte Oreilles Ojibwe Community College, Hayward WI. "Fungal Human Diseases of the North Woods"
- Mar 2000 New York Botanical Garden, Bronx, NY. "The life cycle of the morel: Are morels Mycorrhizal?"
- Nov 1999 St. Mary's University, Dept. of Biology, Winona, Minnesota. "Fungi of the Upper Mississippi River Valley."
- Oct 1999 University of Maine, Department of Biological Sciences, "Forest Fungi across North America"
- Jun 1999 Penn State University, Plant Pathology Departmental Seminar, "Forest Fungi Across North America."
- Oct 1997 Lac Courte Oreilles Ojibwe Community College, Hayward, WI. Presented slide lecture on "Namekagon River Fever (Blastomycosis) and Fungi of Northern Wisconsin." Preceded by a mushroom foray into the woods.
- May 1997 Mankato State University (Minnesota). Department of Biology seminar, "The life cycle of the morel mushroom"
- March 1996 University of Wisconsin-La Crosse Biology and Microbiology Departmental seminar. "Fungal biodiversity, endangered species, and systematics: Studies in Bridgeoporus and Armillaria."
- Feb 1996 UW- Madison Botany Department Seminar. "The most noble polypore, Bridgeoporus nobilissimus, a rare and endangered fungus."
- Dec 1995 National Aeronautics and Space Administration (NASA), Stennis Space Center, Mississippi, Sigma Xi Scientific Research Society. "Novel commercial and industrial uses for wood debris."
- Dec 1994 UW- Madison Botany Dept. Colloquium with Michael Clayton: "New Multimedia Resources"
- Apr 1991 Ohio University. Athens, Ohio. Botany Department Seminar. "Cultivation and life cycle of Morchella." Scientific meetings without formal presentations
- Mar 1998 Focus on Fungal Infections 8. Orlando, Florida. Jul 1994 Conference on Biodiversity Studies of Western Fungi. Corvallis, Oregon. Committee on computer databases. Aug 1989 Conference on the Cellular and Molecular Biology of Basidiomycetes, Erindale College, Toronto, Canada. May 1989 National meeting on Biology and Cultivation of Shiitake mushrooms. St. Paul, Minnesota. Aug 1981 American Institute of Biological Sciences/Mycological Society of America meeting in Bloomington, Indiana

- **PEER REVIEWING** 2007, 2005, 2004, 2003, 2002, 2001, 2000, 1999, 1998, 1997, 1996, 1995, 1994, 1993, 1992, 1991, 1989, Peer Reviewer for *Mycologia*, Journal of the Mycological Society of America 2001, 1998 Reviewer for Mycotaxon 2003 Peer Reviewer for The Condor, International Journal of Avian Biology, also for Mycological Research. 2000. Reviewer for Fungi chapter in Raven and Johnson's textbook "Biology," Reviewer for *Bioresource Technology* 1998 Peer Review Advances in Space Research, Mycological Research 1999 Mycorrhiza 2001, 2000 Canadian J.of Botany 1996, 1995, 1994 Peer Reviewer of several Small Business Innovation Persearch (SPIR) grants. Canadian Lowred of Patron
- 1996, 1995, 1994 Peer Reviewer of several Small Business Innovation Research (SBIR) grants, Canadian Journal of Botany,
- and Journal of Applied and Environmental Microbiology. 1999 Peer Reviewer, pre-submission book proposals, Princeton University Press; for Encyclopedia of Plant Pathology; for US Forest Service publication on Bridgeoporus nobilissimus; and APS Press book on Phytopathogenic Fungi

• 1996-1997, 2003-2004 Major reviewer, Fungi Chapter of the Sixth and Seventh Editions (1998 & 2005) of Raven, Evert and Eichhorn's **Biology of Plants**, the most widely used Botany text in the English speaking world. Also published four photographs in that chapter.

# **ORAL PRESENTATIONS AND POSTERS AT MEETINGS**

INTERNATIONAL MEDICINAL MUSHROOM CONFERENCE, Ljubljana, Slovenia Sept 24-27, 2007. Oral presentations 1. **Thomas J. Volk** and Craig Dunek Medical Mycology: the dark side of Mycology 2. Craig Dunek and **Thomas J. Volk** Antifungal secondary metabolites from fungal fruiting bodies 3. Ayman Daba, S.N. Rajagopal, Bernadette Taylor, Jonathan Palmer and **Thomas J. Volk** Scaling up of *Schizophyllum commune* exopolysaccharides: from shake flask to bench top bioreactor

MYCOLOGICAL SOCIETY OF AMERICA annual meeting. Baton Rouge, Louisiana. August 4-9, 2007. Poster presentations: 1. Maria Lee, , **Thomas J. Volk**, Chester R.Cooper, Julie M.Chandler. Proteomics profiling of dimorphism in *Penicillium marneffei*, an opportunistic fungal pathogen of humans. Maria won one of two poster awards for our presentation. 2. Carrie K Lauer and **Thomas J. Volk**. Ornamental plants as potential reservoirs for *Scedosporium apiospermum*, an emerging fungal pathogen of humans. 3. Elisabeth Jarvis and **Thomas J. Volk**. Preliminary studies of mycodiversity from differently aged prairies 4. Rebecca Curland and **Thomas J. Volk**. Preliminary mycodiversity studies of AMF colonization in a southwestern Wisconsin prairie dominated by the invasive exotic plant *Euphorbia esula* (leafy spurge). Oral presentation: Craig Dunek and **Thomas J. Volk**, The incidence of antifungal drugs from fungi.

AMERICAN SOCIETY OF MICROBIOLOGY Toronto Canada. Kathleen Engelbrecht, William Schwan, Aaron Monte, **Thomas J. Volk**, and Marc Rott. Screening a Fungal Fruiting Body Library for Antimycobacterial Activity . May 2007

24<sup>TH</sup> INTERNATIONAL FUNGAL GENETICS CONFERENCE March 2007. **Thomas J. Volk.** Invited presentation: "Using the internet to lure people into learning about mycology. \* even though they didn't know they wanted to learn anything at all." Poster : Teaching medical mycology: luring students into learning about fungi."

MYCOLOGICAL SOCIETY OF AMERICA/ AMERICAN PHYTOPATHOLOGICAL SOCIETY/ CANADIAN PHYTOPATHOLOGICAL SOCIETY annual meeting. Quebec, Canada. July 28-31, 2006. *Oral Presentations*: 1. Jonathan Palmer and **Thomas J. Volk.** Morphological and molecular characterization of fungi associated with an American chestnut (*Castanea dentata*) dominated ecosystem in Wisconsin. 2. Bernadette O'Reilly and **Thomas J. Volk.** Using Microscopy and PCR to verify the mycorrhizal association of *Morchella esculenta* with *Ulmus americana. Posters*: 1. Ayman Daba, Bernadette M. Taylor, Jonathan M. Palmer, Melanie D. Winter, Craig P. Dunek, & **Thomas J. Volk**. Can *Amanita muscaria* fight cancer ? More questions than answers. 2. Melanie Winter and **Thomas J. Volk**. Preliminary investigation of gene regulation in a heterokaryon of *Neurospora crassa* 3. Craig P. Dunek and **Thomas J. Volk** Preliminary isolation and characterization of novel antifungal chemicals from fungal fruiting bodies. Craig won one of two graduate student poster awards for our presentation.

INTERNATIONAL MEDICINAL MUSHROOM CONFERENCE. Port Townsend Washington. Oct. 13-17, 2005.Oral Presentations: 1. Adam Gusse and **Thomas J. Volk.** Biodegradation of phenolic resins by white-rot fungi" 2. **Thomas J. Volk** "The secret sex lives of fungi" Also was a member of the international Scientific Committee and a Foray Leader.

MYCOLOGICAL SOCIETY OF AMERICA/ MYCOLOGICAL SOCIETY OF JAPAN annual meeting. Hilo, Hawaii. July 30- August 5, 2005 *Oral presentations*: 1. Joshua W., Burgess, William Schwan, and **Thomas J. Volk**. Detection of *Blastomyces dermatitidis* DNA from natural samples using rapid PCR-based methods. 2. Bernadette O'Reilly and **Thomas J. Volk** The exploitation of mycorrhizal association to induce fruiting in *Morchella esculenta*. 3. Kelsea Jewell and **Thomas J. Volk** The possible biocontrol of pathogen *Candida albicans* using the killer yeast *Candida glabrata* Y55

*Posters*: 1. Jonathan Palmer and **Thomas J. Volk** Molecular characterization of mycorrhizal fungi associated with a disjunct stand of American chestnuts (*Castanea dentata*) in Wisconsin 2. Melanie Winter and **Thomas J. Volk** "Rediscovery" of C.W. Hesseltine's thesis on the Mucorales (Zygomycota) 3. Bridget Pfaff and **Thomas J. Volk** Water, water everywhere: preliminary studies in medical document recovery following water infiltration

MYCOLOGICAL SOCIETY OF AMERICA annual meeting, Asheville, North Carolina. July 18-21, 2004

**Oral presentations:** 1. Adam Gusse and **Thomas J. Volk.** Biodegradation of phenolic resins by white-rot fungi. 2. Bernadette O'Reilly and **Thomas J. Volk.** Preliminary isolation and identification of fungi and bacteria associated with morel fruiting 3. Sean Westmoreland and **Thomas J. Volk.** Comparison of chemosystematics and ITS sequencing in the systematics of *Hydnellum* (Basidiomycota, Thelephoraceae) **Posters:** 1. Kelsea Jewell and **Thomas J. Volk.** Preliminary investigations into the use of a killer *Candida* strain to control candidiasis. 2. Maria Lee and **Thomas J. Volk.** Preliminary proteomic profiling of dimorphism in *Penicillium marneffei*, an opportunistic fungal pathogen of humans. 3. Jonathan Palmer and **Thomas J. Volk.** Survey of fungi associated with a disjunct stand of American chestnut (*Castanea dentata*) in Wisconsin.

ASSOCIATE INFECTION CONTROL NURSES Gundersen Lutheran Hospital "Skin Flicks; Fungal infections of the skin." May 2004

DEEP HYPHA systematic mycology meeting . March 2004. **Thomas J. Volk** Teaching mycology in the *Age of Uncertainty*. Invited symposium presentation. Knoxville, Tennessee,

## **ORAL PRESENTATIONS AND POSTERS (CONT'D)**

MID-CONTINENTAL MYCOLOGICAL CONFERENCE. UW- Madison. March 26-27, 2004

Oral presentations: 1. Adam Gusse and Thomas J. Volk. Biodegradation of phenolic resins by white-rot fungi.
2. Bridget Pfaff and Thomas J. Volk. Water, water everywhere. Preliminary discoveries in document recovery following water infiltration in an indoor environment. 3. Kelsea Jewell and Thomas J. Volk. Killer yeasts: explanations and exploitations
Posters: 1. Thomas J. Volk. Teaching Medical Mycology to Graduates and Undergraduates. 2. Joshua W., Burgess, William Schwan, and Thomas J. Volk. Development of a rapid PCR-based assay to detect the human pathogen *Blastomyces dermatitidis* in soil samples. 3. Adam C. Gusse and Thomas J. Volk. Survey of Wood-decay And Other Fungi From Kachemak Bay, Alaska.
4. Bernadette D. O'Reilly and Thomas J. Volk. Time-lapse and epifluorescence microscopy of hyphal interactions of *Armillaria* with its pathogen *Entoloma abortivum*. 5. Maria Lee and Thomas J. Volk. Preliminary proteomic profiling of dimorphism in *Penicillium marneffei*, an opportunistic fungal pathogen of humans.

Joshua W. Burgess, William Schwan, and **Thomas J. Volk.** Development of a rapid PCR-based assay to detect the human pathogen *Blastomyces dermatitidis* in soil samples. (*Joshua won first prize for graduate student oral presentation.*) NORTH CENTRAL BRANCH OF THE AMERICAN SOCIETY FOR MICROBIOLOGY annual meeting. Oshkosh, WI October 2003

MYCOLOGICAL SOCIETY OF AMERICA/ BRITISH MYCOLOGICAL SOCIETY joint meeting. Asilomar, California, July 27-30, 2003
1. Joshua W., Burgess, William Schwan, and Thomas J. Volk. Development of a rapid PCR-based assay to detect the human pathogen *Blastomyces dermatitidis* in soil samples. (*Joshua won one of three graduate student poster awards.*)
2. Adam C. Gusse, and Thomas J. Volk. A Survey of Wood-decay And Other Fungi From Kachemak Bay, Alaska. 3. Bernadette D. Oreilly and Thomas J. Volk. Time-lapse and epifluorescence microscopy of hyphal interactions of *Armillaria* with its pathogen *Entoloma abortivum*. 4. Sean E. Westmoreland , Thomas J. Volk and Susan Hopkins. Morphological, molecular, and musical studies in *Hydnellum* (Basidiomycota, Thelephoraceae), reinforced with a new method, Chemosystematics with HPLC Using Mass Spec (CHUMS). 5. Nicholas C. Zitomer, Thomas J. Volk, and Marc Rott. Isolation and characterization of antimicrobial substances from fruiting bodies of macrofungi.

INTERNATIONAL SOCIETY OF ANIMAL AND HUMAN MYCOLOGY (ISHAM) meeting, San Antonio, TX, May 24-30, 2003

1. Thomas J. Volk. Teaching Medical Mycology to Graduates and Undergraduates.

2. Joshua Burgess, William Schwan, and **Thomas J. Volk.** Development of a rapid PCR-based method to identify *Blastomyces dermatitidis* from soil.

Adam Gusse and **Thomas J. Volk**. A survey of wood-decay and other fungi from Kachemak Bay, Alaska. UNIVERSITY OF WISCONSIN SYSTEM UNDERGRADUATE RESEARCH DAY, Eau Claire Wisconsin. April 2003

UNIVERSITY OF WISCONSIN- LA CROSSE UNDERGRADUATE RESEARCH DAY-April 17, 2003

- 1. Adam Gusse and Thomas J. Volk. A survey of wood-decay and other fungi from Kachemak Bay, Alaska
- 2. Chau Nguyen and Thomas J. Volk. Extraction of antimicrobial compounds from fungi.
- 3. Bernadette O'Reilly and Thomas J. Volk. Studying fungal pathology using epifluorescence and time-lapse photography

**Thomas J. Volk** "Colonization by mycorrhizal and wood-decay fungi of a disjunct stand of American chestnuts in Wisconsin" THE AMERICAN CHESTNUT FOUNDATION Annual Meeting, La Crosse, WI Oct 20, 2002

MYCOLOGICAL SOCIETY OF AMERICA Annual Meeting, Corvallis, Oregon, June 22-27, 2002

- 1. Sean Westmoreland, **Thomas J. Volk**, and Aaron Monte. "A morphological, pigment, molecular and musical study of *Hydnellum* (Basidiomycota, Thelephoraceae)."
- 2. Nicholas C. Zitomer and **Thomas J. Volk**, "Isolation and Identification of Novel Compounds and Antibiotics from Basidiomycota Fruiting Bodies"

Thomas J. Volk "Little Fungi on the Prairie" PRAIRIE ENTHUSIASTS annual meeting, La Crosse WI, March 2002

MYCOLOGICAL SOCIETY OF AMERICA/ AMERICAN PHYTOPATHOLOGICAL SOCIETY/ SOCIETY OF NEMATOLOISTS Annual Meeting. Salt Lake City Utah, August 2001

- 1. Marsha Harbin and **Thomas J. Volk** "Recycling of spent grains from beer and ethanol production into media for mushroom production" Phytopathology 91: S111
- 2. Sean E. Westmoreland and **Thomas J. Volk** "A preliminary study of *Hydnellum* (Thelephoraceae, Basidiomycota) using morphological and pigment characteristics" Phytopathology 91:S126.

- 3. **Thomas J. Volk**. "Issues in using electronic media in teaching Mycology" Joint APS/MSA workshop: Strategies for teaching Mycology in the plant pathology curriculum.
- 4. Presented a one-day 6.5-hour lecture short course "Catching up on Mycology." see below in "Teaching outside universities"

**Thomas J. Volk** "Tom Volk's Fungi, a website for learning about mycology." INSTRUCTIONAL TECHNOLOGY SYMPOSIUM, INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY, Online Symposium, www.ispp-itsymposium.org.nz/index.html, May 2001

MYCOLOGICAL SOCIETY OF AMERICA ANNUAL MEETING, Burlington, Vermont. July 30-Aug 3, 2000

- 1. **Thomas J. Volk** "Teaching Mycology Using the Internet" Invited Symposium Presentation "Challenges and Opportunities in Mycology Instruction
- 2. Thomas J. Volk "Poster Presentations as a teaching and learning tool in Mycology courses" Fungi in the Laboratory
- 3. Karen Wikler, Matt Rademacher, Daniel Czederpiltz, Jessie Micales, **Thomas J. Volk**, and Yitzhak Hadar. "Biodiversity of wood-inhabiting fungi in Israeli pine forests."

**Thomas J. Volk**, Adrienne Loh, Kenny Hunt, Rick Gillis & Scott Cooper. UW-LA CROSSE SYMPOSIUM ON TEACHING AND LEARNING "Building Web pages that students will actually use" January 2000

**Thomas J. Volk** and Scott T. Cooper. ASSOCIATION OF COLLEGE AND UNIVERSITY BIOLOGY EDUCATORS (ACUBE) annual meeting. River Falls, Wisconsin. "Building web pages that students will actually use" Workshop, October 1999.

Marsha Harbin and Thomas J. Volk. SMITH FORAY, West Bend WI. "The relationship of Morchella with tree roots" Sep. 1999

INTERNATIONAL BOTANICAL CONGRESS/ MYCOLOGICAL SOCIETY OF AMERICA ANNUAL MEETING St. Louis, MO. August 1999

- Kenneth W. Cochran, John H. Trestrail, III, and **Thomas J. Volk**. "Mushroom Poisoning In North America: 1983-98" (abs) XVI International Botanical Congress Abstracts #2295 p. 675.
- Marsha Harbin and **Thomas J. Volk.** "The association of *Morchella* with plant roots" (*Marsha won one of four Graduate Student Research Prizes from MSA for our presentation*) XVI International Botanical Congress Abs. #1601 p. 559.

**Thomas J. Volk.** "Human Fungal Diseases of the North Woods." BRIDGES TO THE BACCALAUREATE summer research program. Lac Courte Oreilles Community College of the Ojibwe/ University of Wisconsin-La Crosse, June 1999

**Thomas J. Volk.** "Solid State Fermentation: Modern Methods in The Production of Edible and Medicinal Mushrooms" THIRD ANNUAL SYMPOSIUM ON INDUSTRIAL AND FERMENTATION MICROBIOLOGY. La Crosse, WI April 1999.

## **ORAL PRESENTATIONS AND POSTERS (CONT'D)**

Hazel Centeno and Thomas J. Volk. "Natural plant products against yeast infections." UW-L UNDERGRAD RES DAY. March 99

**Thomas J. Volk** and Kathie T. Hodge. "The impact of the Internet on Mycology." MYCOLOGICAL SOCIETY OF AMERICA/ AMERICAN BRYOLOGICAL AND LICHENOLOGICAL SOCIETY JOINT MEETING. San Juan, Puerto Rico. June 1998

**Thomas J Volk,** "Producing the ultimate fungus web site." Organizational meeting of BotWeb, a division of BioWeb, a collaboration of fourteen UW System schools. Madison, Wisconsin. May 1998

Annie L Voyles and **Thomas J. Volk.** "Chemotherapeutic Treatments for Systemic Mycoses." Lac Courte Oreilles Ojibwe Community College, Hayward, WI. TRIBAL HEALTH CONCERNS: AN ENVIRONMENTAL- BIOMEDICAL APPROACH. May 1998

Presented informal seminar on "Mushroom cultivation and the possibilities for isolating biologically active products Hoechst Marion Roussell Pharmaceutical company (Research Division). With Toby Feibelman. Frankfurt, Germany. November 1997

**Thomas J. Volk**, Mary Ellen Kozak, & Joseph Krawczyk. "Ecological guides to the cultivation of edible mushrooms." INTERNATIONAL SHIITAKE GROWERS' SYMPOSIUM, Huntsville, Alabama. October 5-6, 1997.

Harold H Burdsall, Jr., Mark T. Banik, and **Thomas J. Volk.** "The status of *Laetiporus* in North America." 9<sup>TH</sup> INTERNATIONAL CONFERENCE ON ROOT AND BUTT ROTS. (IUFRO) Carcans, France. August 31-Sept 7, 1997

**Thomas J Volk**. "Ecological guides to the production of edible mushrooms." Featured Speaker, SHIITAKE GROWERS' ASSOCIATION OF WISCONSIN (SHII-GAW) ANNUAL MEETING. Arcadia, Wisconsin October 1996

MYCOLOGICAL SOCIETY OF AMERICA/AMERICAN PHYTOPATHOLOGY SOCIETY MEETING. INDIANAPOLIS, INDIANA. **JULY 1996**: 1. **Volk, Thomas J**. "Extra-scholastic Mycology." Teach-in: Innovations for teaching Plant Pathology and Mycology.

2. Volk, Thomas J., J. Krawczyk, & M.E. Kozak. "Ecological guides to the production of edible fungi." Symposium: Technology Transfer of Ecological Information, Part II. Industrial Applications. (abs.) INOCULUM 47 (3):32

3. Lindner, D., **Thomas J. Volk** and H.H. Burdsall, "*Entoloma abortivum* as a parasite of *Armillaria*" (abs.) INOCULUM **47** (3):19 4. Banik, Mark, H.H. Burdsall, Jr., and **Thomas J. Volk**. "Differences between isolates of *Laetiporus sulphureus* in the Internal Transcribed Spacer region of the nuclear ribosomal DNA." (abs.) INOCULUM **47** (3): 2

Thomas J Volk "The genus Armillaria: Who's in and who's out." A.H. SMITH LAKE ST. FORAY. Kalamazoo, MI. Sept. 1994

INTERNATIONAL MYCOLOGICAL CONGRESS/ MYCOLOGICAL SOCIETY OF AMERICA. VANCOUVER, BC, CANADA. Aug. 1994 .

1. Thomas J Volk, Harold H. Burdsall, Jr., and Mark T. Banik. "Armillaria in the American Northwest."

2. J.F Ammirati, G.R. Walker, L.L. Norvell, M.T. Seidl, Puget Sound Mycological Society, S.A. Redhead, J.H. Ginns, H.H. Burdsall, and **T.J. Volk**. "Macrofungi of old-growth *Abies* forests in the Pacific Northwest."

Thomas J Volk. "Oxyporus nobilissimus; cultural and ecological studies". A.H. Smith Foray. Wisconsin Dells, WI. Sept. 1993.

**Thomas J Volk** and Harold H. Burdsall, Jr. "Preliminary survey of wood-decay fungi in old-growth forests of Alaska." MYCOLOGICAL SOCIETY OF AMERICA MEETING. Athens, Georgia. June 1993. (abs.) INOCULUM **44**:62

**Thomas J Volk**. "The Ecology and Taxonomy of *Morchella* in North America: A Comparison of the East vs. the West." A.H. SMITH LAKE STATES FORAY. Jo Daviess County, Illinois. Sept 1992

**Thomas J Volk.** "*Oxyporus nobilissimus*, the giant polypore of the Pacific northwest." MYCOLOGICAL SOCIETY OF AMERICA/AMERICAN PHYTOPATHOLOGY SOCIETY JOINT MEETING. Portland, Oregon. August 1992. (abs.) INOCULUM **43**:53

T.W Darmono, Harold H. Burdsall, and **Thomas J. Volk**. "Interfertility among North American isolates of *Armillaria tabescens*." A.H. Smith Lake States Foray. University of Wisconsin-Stevens Point Field Station. Tomahawk, WI Sept. 1991.

T.W Darmono, Harold H. Burdsall, and **Thomas J. Volk.** "Interfertility among North American isolates *of Armillaria tabescens.*" AMERICAN PHYTOPATHOLOGICAL SOCIETY MEETING. St. Louis, MO, August 1991. (abs.) PHYTOPATHOLOGY **81**:1142.

MYCOLOGICAL SOCIETY OF AMERICA ANNUAL MEETING, MADISON, WI, JUNE 1990:

1. Thomas J Volk, and Thomas J. Leonard. "Heterokaryon formation between monoascosporous strains of Morchella."

2. T.J Leonard & T.J. Volk. "Production of new edible mushrooms in North America". Symposium:Industrial Mycology.

3. Thomas J Volk and Thomas J. Leonard. "Cytology of the life cycle of Morchella."

# MYCOLOGICAL FORAYS AND "AMATEUR" MYCOLOGY EVENTS

<u>Amateur mycology</u>— what is a mushroom foray? Mycology is one of only four major scientific disciplines (archaeology, astronomy, and ornithology are the others) where amateurs have a significant impact on research and study, where they aid in collection of specimens, as well as the ecological data that is necessary for the collections to have scientific value. I am a very strong advocate of the involvement of non-professional mycologists in the study of fungi at many different levels. This is one of the reasons I am proud to be an *Honorary Member of the Board of Directors* of the Wisconsin Mycological Society and *Scientific Advisor* to the Minnesota Mycological Society. <u>Mushroom Forays</u> are events where professional and amateur mycologists meet, collect fungi, identify and catalogue them, and give lectures, workshops and presentations. North American Mycological Association (NAMA) forays are annual 3-day events in various parts of North America – I have attended 17 of the past 19. Various other local mushroom clubs have invited me for presentations, including those in Wisconsin, Minnesota, Louisiana, Florida, Massachusetts, Illinois, North Carolina, California, Colorado, New York, New Jersey, Missouri, Texas, Oregon, Toronto, DC, and New Mexico. I have also led many 2-3 hr. local "mushroom walks."

*Dec 2007* Gulf States Mycological Society/ NAMA Regional Foray. Keynote speaker and invited mycologist "Toads and toadstools: what old wives (and old husbands) tell us about fungi" Foley, Alabama

*August 2007* North American Mycological Association. Keynote speaker and invited mycologist "Toads and toadstools: what old wives (and old husbands) tell us about fungi" Pipestem, West Virginia.

*Fall 2000, 2003, 2007* Wisconsin Mycological Society La Crosse Area foray *Fall 1995, 1994, 1993, 1992, 1991, 1990; Spring 1994, 1993* Wisconsin Mycological Society. Leader of the annual Madison area forays and spring morel forays. Taxonomist, annual Mushroom Fair. Author of articles for the WMS quarterly Newsletter. Honorary Member of the Board of Directors.

*Fall 2007, 2006, 2005, 2003, 2002, 2001, 2000, 1999, 1998, 1997, 1996, 1995, 1994, 1993, 1992, 1991, 1990, 1989, 1988, 1987* Madison Audubon Society. Leader of fungal forays.

March 2007 Wisconsin Mycological Society, monthly speaker. "Mysterious and malicious molds and mushrooms" Milwaukee

*January 2006* Los Angeles Mycological Society, San Diego Mycological Society, monthly speaker. "Mysterious and malicious molds and mushrooms" Also led a foray in the Santa Ana Mountains.

*Fall 2005, 2004, 2002, 2001, 2000, 1999, 1997, 1995, 1994, 1993, 1992, 1991, 1990, 1988, 1987, 1986, 1985* Alexander H. Smith Lake States forays (for midwestern professional mycologists) in Wisconsin, Michigan, Indiana, and Illinois. Co-host of 1993 foray in Sauk County, Wisconsin. Host of 2001 Foray at Ferryville WI. 3-day forays

*August 2005* Northeast Mycological Federation annual foray. Mont Alto PA. Keynote speaker. 'shrooms in da 'hood: the impact of fungi in urban and suburban environs. 3 day foray

*July 2005* North American Mycological Association annual international foray, host mycologist, La Crosse, WI Presented keynote lecture "Chestnuts and the coulee region." Foray was attended by people from 29 states and 4 counties. 3 day foray.

*January 2005* Mycological Society of San Francisco. Monthly meeting. Fungus Federation of Santa Cruz. Monthly meeting 'shrooms in da 'hood: the impact of fungi in urban and suburban environs

*January 2005* Sonoma County Mycological Association monthly meeting. "Where have all the hydnums gone?" *January 2005* Sonoma County Mycological Association. Invited chief mycologist, keynote speaker ""Characters used to separate the modern genera of gilled fungi." 3 day foray

*November 2004* Mycological Society of Toronto, Invited speaker. 'shrooms in da 'hood: the impact of fungi in urban and suburban environs

*October 2004* Puget Sound Mycological Society, Seattle, WA, Featured Mycologist, Wild Mushroom Fair. "The impact of fungi on humans and history" and 'shrooms in da 'hood: the impact of fungi in urban and suburban environs. 2-day fair *October 2004* Breitenbush Mushroom Conference, OR. Featured Mycologist "The impact of fungi on humans and history" 3-day

October 2004 Snohomish County "Characters used to separate the modern genera of gilled fungi."

October 2004 Oregon Mycological Society, Portland, OR . "The impact of fungi on humans and history"

*September 2004* Western Pennsylvania Mushroom Club annual foray. Invited Mycologist "Characters used to separate the modern genera of gilled fungi."

August 2004 Mycological Association of Washington, DC. Invited speaker "The impact of fungi on humans and their history"

*August 2004* Colorado Mycological Society, Invited Mycologist for Mushroom Fair. "The impact of fungi on humans and history" Denver Botanical Garden.

*July 2004* North American Mycological Association Annual Foray, Asheville North Carolina. Invited Mycologist. "What is a species? Defining species boundaries in the new era of DNA."

*March 2004* New York Mycological Society "Marvelous Mushrooms: The impact of fungi on humans and their history" American Museum of Natural History

*March 2004* Connecticut Westchester Mycological Association (COMA) "Where have all the Hydnums gone?" Purchase NY *March 2004* New Jersey Mycological Association "Exposé : The secret sex lives of fungi"

*December 2003* Mycological Society of San Francisco Fungus Fair. Invited Guest Mycologist. "Exposé : The secret sex lives of fungi" Oakland, CA 3 day event.

*September 2003* Northeast Mycological Federation. Invited Guest Mycologist and Keynote speaker. "Exposé : The secret sex lives of fungi" Deposit NY 3-day foray

*August 2003* North American Mycological Association Annual Foray, Québec. Invited Mycologist, one of only 3 from the USA. Presented lecture with Sean Westmoreland: "Where have all the *Hydnums* gone? The place of the Tooth Fungi in the new classification." 3-day foray

*October 2003* La Crosse Kiwanis Club *April 2002* Onalaska Area Business Association annual banquet. Valley View Rotary Club. *Nov 2001* Downtown La Crosse Rotary Club "Mushrooms and other fungi of the Coulee Region and beyond."

*April 2003* Western Pennsylvania Mushroom Club. Invited Mycologist, Spring Morel Foray. "Mushrooms and other fungi of western Pennsylvania. 1-day foray.

*January 2003* Sonoma County Mycological Association. Guest Mycologist annual winter foray. Presented "Polypores of California." 2-day foray.

**October 2002** North American Mycological Association Annual Foray, Diamond Lake, Oregon. Invited Mycologist and Keynote speaker. "Bridgeoporus nobilissimus, the most noble polypore." 3-day foray

**October 2002** Illinois Mycological Association, Invited Speaker. "Magical Mushrooms, Mischievous Molds: the impact of fungi on humans and history." 3-day foray

August 2002 NAMA "exotic" foray in Sterling, Alaska. Chief Mycologist, presented keynote lecture "Fungi of Alaska."

January 2002 Sonoma County Mycological Association, Guest Mycologist annual winter foray, presented the keynote lecture "Magical Mushrooms, Mischievous molds: the impact of fungi on humans and history." 3 day foray

November 2001 Boston Mycological Club. Invited speaker, annual banquet. "The impact of fungi on Humans and history."

October 2001 Texas Mycological Society annual foray, Huntsville TX. "What is a species?" Guest mycologist. 3-day foray

*August 2001* Northeast Mycological Federation annual Foray Invited Guest Mycologist Presented keynote lecture "Mycological Cannibalism: Fungi that eat other fungi" Lynn Margulis was the "warm-up" speaker before me. I also lectured on polypore identification. University of Massachusetts, Amherst. 3-day foray

*July 2001* North American Mycological Association annual Foray. *Principal Mycologist*. Presented keynote lecture "Clyde Christensen's Foolproof Four revisited" 3 day foray St. John's University, Collegeville MN

*May 2001* Mycological Society of San Francisco. Invited guest Mycologist. 3-day weekend foray. Presented lecture "The life cycle of the morel: Are morels mycorrhizal?"

*May 2001* Sonoma County (CA) Mycological Association. Invited guest Mycologist. 2-day weekend foray. Presented lecture "The life cycle of the morel: Are morels mycorrhizal?"

May 2001 Fungus Federation of Santa Cruz (CA). Presented lecture "The life cycle of the morel: Are morels mycorrhizal?"

*December 2000* Gulf States Mycological Society/ North American Mycological Association Regional Foray. Invited Guest Mycologist and Keynote speaker. "What is a species?" Wakulla Springs, Florida. 2-day foray.

Nov. 2000 Oregon Mycological Society "Forest Fungi of Oregon (and less important parts of North America)" Portland, OR

*August 2000* Northeast Mycological Federation (NEMF), annual foray. *Keynote Speaker*. "What is a species? Honeys and sulfurs and spongeheads—Oh my!" University of Connecticut, Storrs, CT 3-day foray

*August 2000* "Mushrooms (and other fungi) of Maine." Evening lecture presented for the people of Steuben, Maine at the Humboldt Field Station, Eagle Hill, Maine

*June 2000* North American Mycological Association (NAMA) annual foray. Beaumont, Texas. Presented a two part series of lectures "Fungal systematics meets molecular biology: what the DNA says" 3-day foray

March 2000 New York Mycological Society meeting, New York, NY "Forest Fungi of North America"

March 2000 New Jersey Mycological Society, Newark NJ "The life cycle of the morel: Are morels mycorrhizal?"

*February 2000* Wisconsin Mycological Society monthly meeting. "A Virtual Winter Foray" Milwaukee, Wisconsin *September 1999* Northeast Mycological Federation, annual foray. *Keynote Speaker*. "The changing nature of fungal names and systematics." Presented workshop on identification of wood-decay fungi. Sugarloaf Mountain, Maine. 3-day foray.

*August 1999* North American Mycological Association annual foray. *Keynote speaker* "Mycology and the Internet" Cape Girardeau MO. 3-day foray. Presented posters: 1. K. W. Cochran, John H. Trestrail, III, and **Thomas J. Volk**. "Mushroom Poisoning In North America: 1983-98" 2. Marsha Harbin and **Thomas J. Volk**. "The association of *Morchella* with plant roots"

September 1999, 1998, 1997, 1996, May 1998, May 1997 Mushroom Walks. Hixon Forest Nature Preserve. La Crosse, WI July 1999 North American Mycological Association Regional Foray, held jointly with the Minnesota Mycological Society. Presented lecture "The changing nature of fungal names and systematics." St. John's University, Collegeville, MN 3-day foray

May 1999 Presented lecture to the Minnesota Mycological Society "Morels and other Spring Fungi of Minnesota."

August 1998 Illinois Mycological Association. Presented Lecture "Describing and Naming Fungi, or Nomenclature is our friend" Field Museum, Chicago

*July 1998* Minnesota Mycological Society Centennial Foray. Chief Mycologist. Presented lectures on "Wood decay fungi" and "Describing and Naming a New fungal species," & workshop on mushroom identification. St. John's Univ., MN 2-day foray.

April 1998 Minnesota Mycological Society meeting. St. Paul, MN. "Life Cycle of the Morel, state mushroom of Minnesota"

February 1998 North American Mycological Association (NAMA) Annual Foray. Asilomar, California. 3-day foray

*August 1997* New Mexico Mycological Society Annual Foray. Chama, New Mexico. Chief Mycologist and Featured Speaker. "The Morel Life Cycle." 3-day foray

August 1997 North American Mycological Association (NAMA) Annual Foray, Copper Mountain, Colorado. 3-day foray

*September 1996* Joint NAMA/ North-East Mycological Federation (NEMF) annual Foray. Ascutney, Vermont. Invited Mycologist: "Describing and naming a new mushroom species, or Fungal Nomenclature is Our Friend." 3-day foray

Pre-1996, before coming to UW- La Crosse

- *April 1996* Guest Lecturer and Invited Mycologist. "Morel Madness" Spring Morel Foray, Missouri Mycological Society. Meramec State Park, near St. Louis, Missouri. "The life cycle of the morel in Missouri" 3-day foray
- *March 1996* Wisconsin Mycological Soc. Lecture. "Naming the Polypores: Why *Polyporus* is split into more than 100 genera."
- *December 1995* Gulf States Mycological Society. Winter Foray Guest Mycologist. Hillsdale Mississippi. Presented lecture: "Edible fungi and prospects for their cultivation." 3-day foray
- *August 1995* North American Mycological Association (NAMA) annual Foray, Bemidji Minnesota. Invited Mycologist; presented a workshop on polypore identification and lectured on polypores and other wood decay fungi. 3-day foray
- Feb. 1995 Madison Audubon Society monthly meeting, presented lecture "Mushrooms and other fungi of Wisconsin"
- Fall 1994, 1993, 1992, 1991, 1989, 1988 Nature Conservancy. Leader or organizer of fungal forays
- October 1994 Guest Lecturer. Botanical Society of Wisconsin. "Interactions between fungi and plants." Stevens Point, WI
- September 1990 Seaverson Dells Environmental Center. Leader of fungus foray. Rockford, Illinois
- February 1990 Wisconsin Mycological Society. Annual Lecturer. "Morels: Fact and Fiction."
- September 1994 North American Mycological Association (NAMA) annual foray. Asheville, North Carolina. Invited Mycologist and Lecturer: Presented talk entitled "The genus *Armillaria* in North America: who's in and who's out." Also presented poster "Armillaria of the American northwest." 3-day foray
- **December 1993** Gulf States Mycological Society. Winter Foray Guest Mycologist. Gulfport Mississippi. Presented lecture: "Armillaria and other wood-inhabiting fungi: their role in the environment and uses in biotechnology." 3-day foray
- August 1991 Asheville Mushroom Club. Asheville, North Carolina. Invited Mycologist and Lecturer. Annual Labor Day Foray. "Wood-rotting fungi: Identification and Ecology." 3-day foray
- *August 1991* North American Mycological Association (NAMA). Invited Mycologist and Lecturer. Annual International Foray at Paul Smith's College, New York. "Resupinate 'crust' Fungi---- Why bother?" 3-day foray
- December 1990 Gulf States Mycological Society. Invited Mycologist and Lecturer. Annual Winter Foray. Gulfport, Mississippi. "Genetics and cytology of the life cycle of Morchella." 3-day foray
- October 1990 North American Mycological Association (NAMA). Invited Mycologist and Featured Lecturer. Annual International Foray in Whistler, British Columbia, Canada. "The life cycle and cultivation of Morchella." 3-day foray
- September 1990 Rochester Area Mycological Association. Invited Mycologist and Guest Speaker. Annual foray. Rochester, New York. "Culture of wood-rotting fungi." 3-day foray

# **PROFESSIONAL SOCIETIES**

Mycological Society of America

William H. Weston award for excellence in teaching Mycology (2003)
Education Committee, Chair 2003-present
Councilor for Ecology and Pathology, 2004-2007
Reviewer for *Mycologia*, Journal of the MSA
Webmaster, web page http://MSAfungi.org (1997-2001)
Electronic Communications Committee (1998-2001)
Liaison Committee for Amateur Mycology (1998-2002), Chair, 2001-2002
Long Range Planning Committee (2001-2002)
Committee on Teaching Mycology (1994-1997)

Joint Commission (MSA/NAMA) on Common names for Fungi in North America (1999-2004) British Mycological Society American Phytopathological Society Senior Editor APS Press, book-publishing arm of the American Phytopathological Society 2001-2005 Illustrations of Plant Pathogens and Diseases committee 1997-2004, Chair 2001-2004 Medical Mycological Society of the Americas American Mushroom Institute Genetics Society of America North American Mycological Association Award for Outstanding Contributions to Amateur Mycology (2005) Host Mycologist for 2005 international foray in La Crosse Internet committee (1999- present) Toxicology Committee (2000- present) Education Committee (2001-present) Joint Commission (MSA/NAMA) on Common names for Fungi in North America (2000-2004) Wisconsin Mycological Society Honorary Member of Board of Directors (1994- present) Minnesota Mycological Society Scientific Advisor (1999- present) President's Award 2004

# **GRANTS AND CONTRACTS**

- July 1, 2006 June 30, 2007. \$29,961. Schwan, William R, Rott, Marc A, Monte, Aaron P, Volk, Thomas J, "Purification of a novel antibacterial compound with activity against bacterial pathogens of cystic fibrosis patients", UW System Grant.
- 2003-2004 Academic year \$30,000 University of Wisconsin Systems, Solid Waste Research Program. With Paul Miller, UW-L Chemistry. Further development of an assay to screen wood decay fungi for use in recycling of plastic phenolic polymers, utilizing energy from scrap plywood.
- 2003-2004 Academic year \$17,000. UW-L Faculty Development Grant with Scott Cooper, Deb Hanmer, Rick Gillis, and Thomas J. Volk "Using problem solving modules to improve student's understanding in Introductory Biology."
- 2003- 2004 Academic years The American Chestnut Foundation. \$15,000 "Ecological studies of potential fungal biocontrol agents of chestnut blight at the West Salem chestnut stand."
- 2002-2003 Academic year \$15,000. University of Wisconsin System, Solid Waste Research Program. With Paul Miller, UW-L Chemistry, "Development of an assay for screening wood decay fungi for use in recycling of plastic phenolic polymers."
- 2002-2003 Academic Year \$9220 UW-L Faculty Research Grant "Identification and isolation of novel antibiotics and other active compounds from mushrooms"
- 2001-2002 Academic year. \$7308. UW-L Instructional Technology Grant. "Development of a World Wide Web database of fungal images for Mycology"
- 2000- 2002 Academic years The American Chestnut Foundation. \$9928. "Colonization by mycorrhizal and wood-decay fungi of a disjunct stand of American Chestnuts in Wisconsin."
- 2000-2001 Academic Year University of Wisconsin Systems, Solid Waste Research Program \$30,000 "Bioconversion of waste products from beer brewing into edible mushrooms."
- 2000-2001 Academic Year University of Wisconsin-La Crosse Faculty Development Grant with Dr. Debby Hanmer. \$6708 "Use of wood decay fungi to control plant pathogenic nematodes"
- Dec 1999 Paul E. Stry Foundation, La Crosse Wisconsin \$5000 "Survey of fungi in the driftless area of Wisconsin."
- *Nov. 1999-May 2001* Joint Venture Research Agreement with Forest Products Laboratory, Madison WI \$58,220 "Pathogenic and wood decay fungi of Israeli forests"
- 1999-2000 Academic Year University of Wisconsin- La Crosse Instructional Technology Grant \$10,860 "Development of CD-ROM Images for Mycology and Medical Mycology
- 1998-1999 Academic Year Contract for fungal materials /consulting. Millennium Pharmaceuticals, Cambridge MA \$1000
- *1998-1999 Academic Year* University of Wisconsin-La Crosse Foundation Grants. \$25,000 With Scott Cooper, Michael Abler, Margaret Maher and Roger Haro. "Development of web pages in Biology for K-12"
- *1998-1999 Academic Year* University of Wisconsin-La Crosse Foundation Grants. \$1140. With Scott T. Cooper and Robin A Tyser. "Image Documentation Stations for Biology/Microbiology Faculty"
- **1997-1998** Academic Year University of Wisconsin- La Crosse Faculty Development grant. \$2500. "Computerized images of Mushrooms and other Fungi for Teaching."

# CONSULTING ACTIVITIES

- January 1990-present Consultant. Poison Control Center, University Hospital, Madison, WI
- 1990-present Consultant. Field and Forest Products, commercial growers of mushrooms and spawn. Peshtigo, Wisconsin

- Nov. 2000 Consultant American Museum of Natural history, New York NY, published picture in "American Naturalist"
- May 2000 Consultant for print and TV commercials for BellAtlantic, the New England telephone company.
- January 2000, February 2001. Consultant, ABC News, New York, for a story on sex in slime molds.
- April 2000, Feb. 2002 Consultant, National Geographic Magazine for stories on fungi December 1997. Consultant Earth and Sky radio. Program on Truffles and truffle finding. Aired March 17, 1998
- **December 1991-July 1996** Mt. Hood National Forest Morel Enhancement and Harvesting Study. Mt. Hood, Clackamas Ranger District, Oregon. Collaboration with Dr. Nancy Smith Weber and Dr. William Denison of Oregon State Univ., Judy Roger of the Oregon Mycological Society and Bryce Smith of the Mt. Hood Nat'l. Forest.
- July 1991 Consultant. Malheur National Forest Commercial Morel Harvesting Program. John Day, Oregon. With Dr. Hal Burdsall, evaluated the effects of large-scale commercial morel harvesting after forest fires on regeneration of the forest ecosystem by request of the US Forest Service.
- July 1994, 1991 Consultant. Oregon Mycological Society Cantharellus Harvesting Study. Bull Run, Oregon.
- Sept. 1995 Consultant UW-Extension, Plant Disease Identification Program.
- January 1994 Consultant on contamination problems. Sylvan Spawn. Cabot, Pennsylvania.,
- September 1995-June 1997 Consultant. Mushrooms per Tutti, Oconomowoc, WI. Distributors of wild mushrooms
- September 1986- Feb. 1988 Consultant, Golden Forest Mushroom Company, Madison, WI. I was primarily concerned with quality control, including contaminant identification and control in spawn and in sawdust logs. Determination of optimal conditions for various strains of shiitake and Pleurotus was a major responsibility.
- April 1991 Consultant. Homestead Mushrooms, commercial growers of shiitake and specialty mushrooms. Hillsboro, OH.
- October 1990 Consultant. Promestead Musinoonis, connected growers of sindate and specially musinoonis. Thissorie, off. May 1990 Consultant: Presented a lecture, "The life cycle of Morchella" at Company M ("Morel Mountain"), a subsidiary of the Neogen Corporation, East Lansing, Michigan, holder of two patents on morel cultivation.
- June-July 1989 Consultant. TNS Mills Biotechnology Division. Hendersonville, North Carolina. Gave four days of lectures and instructed employees in techniques of morel cultivation; helped with problems in their large shiitake facilities.

- **TEACHING OUTSIDE UNIVERSITIES December 2007** Lectured for three 10<sup>th</sup> grade biology classes at Holmen high school— Impact of fungi on humans and history
- *March* 2006. Lectured for 9<sup>th</sup> grade biology at Holmen High School on the Impact of fungi on humans and history.
- November 2004 7-hr workshop on identification of polypores. Mycological Society of Toronto
- *March 2004* 7-hr workshop on identification of porpores. Hyperosylear boerery of Foroneo *March 2004* 7-hr workshop on identification of tooth fungi and polypores. New Jersey Mycology Assn.. Rutgers University *July 2002*. Young Scholars camp. "Fun with Fungi" -- a week-long camp for 5-9<sup>th</sup> grade students interested in Mycology (among other things). University of Wisconsin-La Crosse
- September 2005, 2004, 2002, 2000, 1999, 1998, 1997, 1996, 1995, 1994, 1993, 1992, 1991, 1990 INSTRUCTOR. Annual Mushroom Workshop. "Introduction to the Edible and Poisonous Mushrooms of Michigan." Ford Forestry Center, Alberta, Michigan, sponsored by Michigan Technological University, Houghton. In this annual 3-day workshop, I was responsible for teaching introductory, intermediate, and advanced students (approximately 50-90 students each year) in the identification of mushrooms and other fungi using macroscopic and microscopic characteristics
- *August 2001.* "Catching up on Mycology: what modern plant scientists should know about fungi" **American Phytopathological Society short course,** before the annual meeting in Salt Lake City UT. All day course, 6.5 hours of lectures, attended by 120 people from 35 states, 3 Canadian provinces, Argentina and South Korea.
- *July 2001* "Polypore Identification: Micro and Macro." 2-day workshop after the North American Mycological Society foray at St. John's University. Attended by 30 people from 11 states and Canada
- August 2000 Basidiomycetes workshop. Humboldt Field Station, Eagle Hill, Maine 4 day workshop
- September 2000 Special guest speaker on Mushrooms; weekly teleconference on Urban Horticulture. UW- Extension
- July 2000 Microbiology Scholar Camp, UW- La Crosse. "Fungi are Fun" 2-day for high School seniors
- March 2000 "Introduction to the Macroscopic and Microscopic characters used to identify polypores" New Jersey Mycological Society Newark NJ
- March 1999 "Fungi are Cool" Lecture and demo to Advanced Placement Biology Class, Aquinas High School, La Crosse WI
- 2002, 1999, 1998, 1997 Conducted training seminars to certify commercial vendors to sell morels in the state of Minnesota; certification is required by Minnesota state law.
- September 1998 Hazard Tree training, Wisconsin Dept. of Natural Resources, Perrot State Park. Presented tour and lecture on "The role of wood decay fungi in hazard trees in campgrounds" to State Park and Forest Managers
- October 1997. Lac Courte Oreilles Ojibwe Reservation High School. Hayward, WI. Presented slide lecture on "Namekagon River Fever (Blastomycosis) and Fungi of Northern Wisconsin." Followed by a field trip into the woods. Presented lectures and forays to three classes--. Grades 10-12, Grade 9, Grade 8.
- August 1995 Polypore Workshop for amateur and professional mycologists. North American Mycological Association annual Foray, Bemidji, Minnesota, presented a workshop "Introduction to the macroscopic and microscopic characters used to identify genera of polypores (poroid wood-decay fungi)."
- February 1994 Guest Lecturer. Wisconsin Dept. of Natural Resources Naturalist Enrichment Workshop. University of Wisconsin Arboretum. "Mushrooms of Wisconsin: Natural history and human uses."

# **POPULAR AND TECHNICAL PUBLICATIONS**

- Heather Hallen, Thomas J. Volk and Gerry Adams, 2001. "May is Morel Month in Michigan." Pamphlet published by Michigan State University Extension. Bulletin E-2755
- Volk, Thomas J. and Allen C. Nelson. Medical Mycology Lab Manual. Revised 2004 (and every year 1996-2003)
- Volk, Thomas J., Thomas J. Leonard and Diane Derouen. Revised 2004 (and previously 2003-1994). Mycology: Laboratory Manual to accompany Botany 332. UW-Madison. Revised for UW-La Crosse BIO 412

- **Thomas J Volk**, 1997. "The Morel Life Cycle" appeared in newsletters of the Ohio Mushroom Society, Snohomish County (WA) Mushroom Society, Minnesota Mycological Society, and the Mycophile, Newsletter of the North American Mycological Association, as well as the Mushroom Growers' Newsletter.
- Thomas J Volk, 1994. Book Review: Ryvarden and Gilbertson's European Polypores. MYCOLOGIA 87:424
- Thomas J Volk. 1994. Book Review: PolyKey: A computerized synoptic key to the polyporaceous, wood-rotting fungi of North America. MYCOLOGIA 86 (2):302-304
- Thomas J Volk,1992 Book Review: Genera of Polypores: Nomenclature and Taxonomy-Leif Ryvarden. MYCOLOGIA 84:950.
- **Thomas J Volk.** 1991. "Summary of Rules for commercial picking of morels from the Malheur National Forest." MUSHROOM, THE JOURNAL OF WILD MUSHROOMING **10** (1):19-20.
- Burdsall, Harold H., Jr. and **Thomas J. Volk**. 1992. "Commercial Picking in Eastern Oregon". MUSHROOM, THE JOURNAL OF WILD MUSHROOMING **10** (1):19