My term as MSA president is drawing to a close. It has been a pleasure and a privilege to have served the Society during this past year. As with many endeavors, many of the projects and issues I’ve dealt with are a work-in-progress, but you will be in good hands with our next president, Kerry O’Donnell. Most of the issues this year are with regards to the Society’s publications and website, the MSA Endowment Funds and upcoming meetings, and the new MSA Student Section.

We have been discussing whether to convert Mycologia to an online-only journal, with the possibility of print-on-demand for at least 5 years. As the current contract with Allen Press ends soon, the decision will likely be made at this year’s MSA Council and Mycologia Editorial Meetings in Edmonton. Some people will always prefer to have a hard copy edition of Mycologia, but the vast majority of MSA members have selected online access only with their membership. We have been concerned that some of our institutional subscribers might discontinue Mycologia if we converted to online-only, but there is no evidence of this from other journals that have converted to online-only. What may be more important in retaining institutional subscribers is effective marketing. The MSA has used volunteers to carry out many of our functions, but frankly we do not have the expertise to carry out effective marketing, which we will need as the journal market becomes more competitive and institutional subscription budgets become tighter. We may need to contract for Mycologia marketing services in order to remain competitive.

Two opportunities emerged this year with regards to absorbing the Fungal Observer Website and the publication of Mycotaxon under the MSA umbrella. While there was some enthusiastic support for the MSA to serve as the parent organization for a Limited Liability Corporation for Mushroom Observer, the ambivalence of some MSA Councilors and Executive Council Members prompted Nathan Wilson and others involved in managing Mushroom Observer to seek out a different parent organization. The issue of whether MSA should take on publication of...
Mycotaxon, possibly in the same manuscript stream as is used for Mycologia, is currently being explored by former president Joey Spatafora. In addition, we are evaluating whether changing the format of Inoculum to web-page rather than PDF format is advantageous.

By now, you have visited the updated MSA website (http://msafungi.org), thanks to Antonio Izzo, our outgoing webmaster, and help and suggestions from MSA Council members and the MSA Student Section chair, Danny Haelwaters. We now have a ‘news’ section that scrolls through recent news, rotating photographs, and social links such as Twitter and Facebook, and the Student Section has an active Twitter feed. And – it is now easier to locate the login field for MSA members under the Business tab. It is possible we may ask the Botanical Society of America to emulate their new website for us, once theirs is completed, since they have similar needs in depending on volunteers to maintain information on the website. The Specific Expertise Committees have been asked to provide website content for the Careers web pages section and items useful to teachers.

The MSA Student Section was formed in 2012, and their By-Laws were approved by MSA membership this year. I appointed student representatives as voting members on many of the MSA Committees, and they have contributed greatly to the committees they are serving on. We enthusiastically support their involvement in making our society better. Chair, Danny Haelwaters’ term ends this year, and he will be replaced by Jessie Uheling (Chair) and Chris Smyth (Vice-Chair).

Lori Carris’ term as MSA Executive Vice President is coming to an end. For the past three years, our Society has benefited significantly from her superb organizational skills, dedication, time, and service. Lori has kept on top of issues and schedules, and counseled us on the correct procedures. While we will greatly miss Lori, we are confident that Sarah E. Bergemann, our new Executive Vice President, will be up to the challenges of the position.

The MSA meeting locations for the next three years have been selected, and the one for our meeting in 2019 is under discussion. Next year’s meeting will be very economical as it will be held on the Clark-Kerr campus of University of California – Berkeley. We are confident that this premier location will attract a large number of members to the 2016 meeting. The MSA meeting in 2017 will be held in Athens Georgia, near the University of Georgia. The biggest meeting news, however, is that MSA will be hosting the 2018 International Mycological Congress in San Juan, Puerto Rico. Lastly, discussions are underway concerning a joint meeting of MSA with the Fungal Biology Branch of the Mexican Society of Biochemistry in Ensenada, Mexico in 2019.

Last, but not least, Treasurer Sharon A. Cantrell and I discovered that the MSA Endowment Fund accounting and investments are in need of revision. The Endowment funds have been pooled for investment, which has made accounting for each of the separate named funds difficult, and some errors in apportionment and awarding of grants appear to have been made. It will take me a month or two of working with actuarial tables from the past 10 years to be sure we have an accurate accounting for each of the funds. In addition, the fund in which the Endowment Fund is invested was once a Value and Income fund, but in recent years, it has not yielded income (though it has increased in value). This is a problem since it is the income generated by the Principal that is used to pay for Student Mentor Awards, Research Grants, and the Karling Lecture. The Finance Committee and Endowment Committee agree that we should 1) seek advice from two professional investment advisors, 2) partition the funds into two categories, a value fund for named Endowments that are under $10,000, and a balanced Mutual Fund that will generate both income and increased value for funds that exceed $10,000. Balanced Mutual Funds will not require re-balancing by the Finance Committee because they are comprised of Stock Index Funds, Bonds, and other financial investments that are relatively protected against market fluctuations.

—D. Jean Lodge
MSA President 2014-2015
djodge@caribe.net

MSA Auction Donation Request

As you pack for the 2015 MSA meetings in Edmonton, please include some items for the annual MSA auction. We would love to see your mycological treasures including mushroom memorabilia, mushroom stamps, mushroom kitsch, mycological books, anything wild and crazy. We will have a special section on postcards and stationery with mushroom cartoons and art work, and snapshots of mycologists at work in the field or in the laboratory for sale. Photos of mentors at previous field trips sell well. All proceeds go to the Endowment Fund, which is the source of our research and travel awards, so help support our young mycologists. If you want to send items to the meetings, please email me, hemmes@hawaii.edu and I’ll give you an address. Otherwise, bring you items to the registration table or see me at the meetings and I’ll take them off your hands. Please help make this year’s auction a heaping success.

—Don E. Hemmes
MSA Endowment Chair
hemmes@hawaii.edu
808-935-6214
Highest Auction Bid Ever

This is an addendum to the auction article published in the last Inoculum [May 2015, Vol. 66(3)] and reminder to participate in the auction at Edmonton—a great cause.

John Taylor kindly pointed out that the highest grossing item ever sold at the MSA Auction brought in $1800. In 2006, a two-volume set of H. W. Wollenweber’s *Fusaria Autographice Delineata* was donated by Tom Bruns, who saw the volumes headed for a dumpster in the library of the recently disbanded Department of Plant Pathology at Berkeley. He promptly boxed them up for auction at the joint MSA-Mycological Society of Japan meeting at Hilo. The joint meeting organized by Don Hemmes was attended by a very strong contingent of Japanese mycologists, who taught MSA members how to party. Kerry O’Donnell had to have the two volumes, which were printed in limited edition and had drawings glued to the pages—but so did the prominent Japanese fusariologist Takayuki Aoki. They got in a bidding war that was won by Kerry with $1800, the final, uncontested figure. John was the auctioneer and certifies that there was nothing shady with the auction, in contrast to the one described in the last issue of *Inoculum* by Bruns involving the truffle fork escapade, thereby forever tarnishing the Bruns and Taylor names, and that Kerry then gave the books as a gift to said Japanese colleague who could genuinely use the set and uniquely appreciate Wollenweber’s scholarship.

As Kerry remembers, “Tom contacted me before the joint meeting of MSA-MSJ to let me know the two-volume set was available for the auction. As I recall, he obtained a letter from the department chair with approval to donate them to the auction. Also, [the ghosts of] Snyder and Hanson surely must have been pleased that the treatise would no longer contaminate the Berkeley campus. I contacted Keith Seifert to see if he needed them, but he already had an original set. Then I asked him to bid against me so I wouldn’t be the only one bidding on them. My intent all along was to give the books to my colleague, Takayuki Aoki. When John brought the set to auction, David Jacobson and Keith bid on them and the price went up to $800-900 in a couple of minutes. That’s when I started bidding. But what I never considered was that Takayuki, as the *Fusarium* sensei in Japan, would bid on them in front of all in attendance. That’s why the price went up to $1800. I gave the books to Takayuki the following day privately so as to not make a big deal out of it.

“And, yes alcohol was involved.”

—John Taylor, Kerry O’Donnell, and Meredith Blackwell

Adding North American mushrooms to the IUCN Global Red List

We all are aware of the importance of fungi for ecosystem health and the biosphere in general, but they are rarely included in conservation discussions or actions. In the USA, only two fungi (*Cladonia perforata* and *Gymnoderma lineare*) are listed as ‘Endangered’ under the US Endangered Species Act, but the Act does not explicitly provide protections to fungi (Davoodian 2015). Numerous fungal species receive protection under the Survey and Manage Standards and Guidelines of the Northwest Forest Plan (SMNFP), but protection into the future is uncertain.

A critical way to help politicians and citizens be more aware of the importance of fungi, and the fact that they face the same threats as plants and animals, is to have mushroom species included in the official IUCN (International Union for Conservation of Nature) Global Red List. Anders Dahlberg and Greg Mueller have extensively written about this initiative (Dahlberg & Mueller 2011; Mueller & Dahlberg 2013), and have made

*Continued on following page*
presentations on fungal conservation at MSA and other meet-
gings. The IUCN Global Red List is a compilation of rigorous
assessments of the extinction risk for individual species made
using strict universal (across kingdoms) criteria and categories
(www.iucnredlist.org).

The 2014 update of the IUCN Global Red List includes only
five fungi (four lichens, and one mushroom, viz. Pleurotus nebrodensis) out of over 20,000 species from the other king-
doms. The Global Fungal Red List Initiative is aiming to change
this (http://iucn.ekoo.se/en/iucn/welcome). During a recent in-
ternational workshop, assessments were prepared for publication in
the IUCN Global Red List of 14 easy to recognize, beautiful and
striking, (very) rare and endangered mushroom species that are
found in the USA and Canada. These 14 species are listed in
Table I, with notes on the main threats and population trends for
each of them.

Table I. USA and Canadian mushroom species proposed for
listing in the IUCN Global Red Data List

<table>
<thead>
<tr>
<th>Species</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agaricus pattersoniae Peck</td>
<td>– restricted to old Monterey cypress groves in coastal California, USA, threatened by urban development and cypress diseases.</td>
</tr>
<tr>
<td>Bridgeoporus nobilissimus (W.B. Cooke) T.J. Volk, Burds, &amp; Ammi- rati</td>
<td>– reproducing only on very large stumps and living true fir trees in Washington, Oregon, and northern California, USA, with high chance of extinction because of the absence of old enough host trees, and vandalism of the long-lived basidiocarps.</td>
</tr>
<tr>
<td>Cortinarius paveleki (Trappe, Castellano &amp; P. Rawl.) Peintner &amp; M.M. Moser</td>
<td>– only found in coastal Oregon growing with Sitka spruce; its population has declined over the last 30 years due to urban encroachment into potential habitat.</td>
</tr>
</tbody>
</table>
| Destuntzia rubra (Harkn.) Fogel & Trappe | – only known from the San Francisco Bay Area (over 110 years ago) and the Sierra and Cas-
cade foothills, but not re-collected in 8 of the 13 known sites. |
| Echinodontium ballouii (Barker) H.L. Gross | – only fruiting on very old trees of Atlantic white cedar, a swamp-inhabiting conifer found along the coast of the eastern USA. Recently only reported from one site in New Hampshire, though all other potential habitats have been extensively surveyed. The extinction risk for this species is very high, because of the lack of old trees. |
| Fevansia aurantiaca Trappe & Castellano | – occurring in high-altitude true fir and hemlock forests of western North America, and only known from a handful of isolated sites. |
| Gastrolectarius camphoratus (Singer & A.H. Sm.) J.M. Vidal | – found mainly in one county in Oregon, USA where recent forest fires have impacted its occurrence. |
| Gloeocantharellus purpurascens (Hesler) Singer | – ectomycorrhizal fungus emblematic for the mixed low-altitude forests of the western part of the Great Smoky Mountains National Park, but also recorded from cloud forests in Mexico. All these habitats are undergoing alterations because of climate change and habitat destruction is a seri-
ous threat for the Mexican populations. |
| Hygrocybe flavifolia (A.H. Sm. & Hesler) Singer | – restricted to coastal redwood forests in California, USA, and known from a handful of localities. Changes in summer fog patterns are already causing drought stress for these redwood forests. |
| Lepiota viridigleba (Castellano) Z.W. Ge & M.E. Sm. | – known from two high altitude forests in the Sierras and southern Cascades of California, USA. |
| Leptonia carnea Largent | – like Hygrocybe flavifolia in coastal red-
wood forests of California, USA, which have been severely logged in the past, and which are now under drought stress, because of climate change. |
| Phaeocollybia oreogonisens A.H. Sm. & Trappe | – one of the rarest Phaeocollybia species, known from a small number of sites in Oregon, Washington (USA), and coastal British Columbia (Canada). Protecting one Phaeocollybia species means protection for several, as they tend to grow in the same kind of old-growth forests. |

Other USA and Canadian fungal species have been pro-
posed, but these have or had a wide distribution throughout the
northern hemisphere. In addition to these mushroom species,
several NA lichenized fungi and other ascomycetes, rusts and
smuts are being assessed.

The complete world-wide list of fungal species that have
been proposed for the Red List can be seen at
http://iucn.ekoo.se/iucn/species_list/

One may notice that nearly 50% of the 14 species of Table
I are hypogeous. This must not lead to the conclusion that hypo-
geous fungi are more threatened or rarer than epigeous species. This is the result of the effort of dedicated mycologists, who spe-
cialize in hypogeous fungal species, who extensively and sys-
tematically surveyed for them for 50 years, yielding the neces-
Sarcodon fuscoindicus (K.A. Harrison) Maas Geest. – limited to the
Pacific northwestern USA, and one locality in central of Mexico,
where it has declined over the past 50 years.

We are looking forward to hearing from you!

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tion DOI 10.1007/s10531-015-0935-3

—Else C. Veilinga Jean A. Bérubé
Michael A. Castellano Gregory M. Mueller
Inoculum 66(4), July 2015

MSA AWARDS 2015

MYCOLOGICAL SOCIETY DISTINCTIONS

Distinguished Mycologist Award: Dr. George Carroll

The Distinguished Mycologist Award is one of the highest awards bestowed by the MSA, and it is designed to recognize individuals that have a truly distinguished career in the field of mycology in terms of either research or service.

Dr. George Clayton Carroll received his B.A. in Botany at Swarthmore College in Pennsylvania, in 1962. Then, as an NSF Research Fellow, he spent a year working with Anders Munk at Copenhagen University in Denmark, and attended the University of Texas, Austin, where he studied under C.J. Alexopoulos. He received his Ph.D. in Botany from the University of Texas in 1966. He was hired in 1967 as Assistant Professor at the University of Oregon, Eugene, where he rose through the ranks to Professor, and continues to be active as an Emeritus Professor. During his career, he was also a Visiting Professor at ETH Zürich, Switzerland, at Kyoto University, Japan, and at the University of the Free State, Bloemfontein, South Africa. Recently, he also worked with Peter Johnston at Landcare Research Institute in New Zealand, studying Phyllosticta on New Zealand podocarps. He continues research on Phyllosticta, trawling genomes for phylogenetically informative genes.

Dr. Carroll’s early work was focused on ultrastructural studies of Ascomycota. He also pioneered the use of fluorescein diacetate for an easy spectrophotometric assay of microbial biomass on leaf surfaces. Starting in the late 1970s he began to investigate endophytic fungi associated with living needles and twigs of conifers. While other endophyte researchers were focused on the Clavicipitaceous endophytes in grasses, Dr. Carroll’s work demonstrated the widespread occurrence and diverse relationships of other endophytes. George’s work on trees showed that the endophytes are widespread, and ecologically diverse in their effects, and the transformative nature of his papers is documented by citations of his early work. His 1978 Carroll & Carroll paper in the Canadian Journal of Botany has now been cited over 283 times, and his single author 1988 Ecology paper has now been cited over 723 times. His work predated the explosion of endophyte literature by a decade or more and certainly helped fuel that growth. The first two editions (1981, 1992) of The Fungal Community: its Organization and Role in the Ecosystem, which Dr. Carroll co-edited, had a huge impact on the developing field of fungal ecology. Here for the first time was work on multiple types of fungal communities assembled together and compared.

Dr. Carroll served MSA throughout his career, including two terms on the Council, Program Chair, Endowment Committee Chair, Associate Editor of Mycologia, and President of MSA. In each capacity, he always took the job seriously, did what needed to be done, and did it well, even transforming himself into a marvelously aggressive auctioneer for the MSA Annual Meeting fundraising event. Dr. Carroll has strongly promoted international mycology through his appointment on the IMC Executive Committee, his service on the editorial board of Mycoscience, and his service on the NSF/Japan panel. His 1988-89 sabbatical at Kyoto University greatly helped to build interactions between North American and Japanese mycologists. Dr. Carroll is an outstanding instructor, having taught many undergraduate courses including several on mycology, and winning a departmental teaching award and the coveted MSA Weston Teaching Award from MSA. Even in retirement he continues to mentor mycology graduate students. George Carroll has had a great impact on the field of mycology through his research, service, and teaching, and is highly deserving of this Distinguished Mycologist award.
William H. Weston Teaching Award: Frederick W. Spiegel

Awarded annually to an outstanding teacher of mycology at the undergraduate and/or graduate levels.

Dr. Frederick W. Spiegel received his Ph.D. in 1978 from the University of North Carolina under the guidance of Lindsay S. Olive, and went on to be an NIH post-doctoral fellow at Princeton University, where he worked with Edward C. Cox until 1980. Following a 2-year Visiting Assistant Professorship in the Department of Botany at Miami University (Ohio), Dr. Spiegel joined the faculty at the University of Arkansas, where he has remained since 1982.

Although Dr. Spiegel’s research has focused on various aspects of the somewhat esoteric Mycetozoan slime molds (a group of spore-producing eukaryotes), he has also always advocated education and cultivated his role as an educator. He has taught a wide array of both introductory and advanced courses, from General Biology, Cell Biology, and General Genetics, to Comparative Botany, Mycology, Protistology, and Advanced Methods in Microscopy. In addition to leading professional workshops devoted to the identification of Mycetozoa and guiding mushroom identification walks for the general public, Dr. Spiegel has successfully advised one non-thesis M.A. student, five thesis M.S. students, and eight Ph.D. students.

Student evaluations and letters of support from former students all endorse Dr. Spiegel’s excellence as both teacher and colleague. Students remarked about his courses being “tough” and “challenging”, but also held that they “had a tremendous impact” and encouraged a “way to critically think”. Another theme that emerged was Dr. Spiegel’s treating students as colleagues rather than pupils. He “fostered a professionalism in his students”, treating them as “fellow scientists working to discover and evaluate”. Following are two excerpts from letters submitted by former students.

“His Mycology and Protistology courses always contributed to a broader understanding of biology in general, and left students (like me) asking more questions and thinking about life differently.”

“I know that his excellence in teaching has had an enormous impact on many lives and careers….I simply would not be where I am today without his critical mentorship, instruction, and support”.

Dr. Spiegel has been an active member of the MSA (serving on various committees since 1984) and is current president of the International Society of Protistologists. Despite these commitments, he continues to explore new opportunities for teaching – this past Spring he developed and offered a fully online version of “Principles of Biology” with a laboratory component.

Dr. Spiegel’s enthusiasm and dedication to education at both the undergraduate and graduate levels clearly emulate the principles of excellence associated with the MSA’s William H. Weston Teaching Award.

Alexopolous Prize: Dr. Peter Kennedy

Awarded annually to an outstanding mycologist early in their career. The nominees are evaluated primarily on the basis of quality, originality, and quantity of their published work.

Dr. Peter Kennedy received his PhD in Integrative Biology from the University of California Berkeley in 2005, where he was co-advised by Wayne Sousa and Tom Bruns. He continued at Berkeley for two more years as Postdoctoral Associate in the Bruns lab. In 2007 he accepted a position as an Assistant Professor at Lewis and Clark College. In 2013 he moved to his current position at the University of Minnesota, St. Paul, as an Associate Professor of Biology.

Dr. Kennedy’s research output and impact in the field of fungal ecology have been stellar. At the time of his nomination he had 38 peer-review publications, 23 of which are first-author or sole author contributions. In addition he had four commentary articles in the New Phytologist, and a first-author book chapter in Ecology of Mycorrhizal Networks. All of his work has been characterized by a fusion of ecological theory with a solid knowledge of fungal autecology and clever experimental or sampling designs that are well incorporated with the statistical analyses. His publications have had a
large impact as is documented by more than 1,400 citations to them. Within his body of work he is probably best known for his studies on interspecific competition in ectomycorrhizal communities and his research on the *Alnus* tripartite symbiosis.

In addition to his impressive research program, Dr. Kennedy has done much for the mycological community. In MSA he is currently a councilor and serves on the awards committee. Previously he served on the student travel awards committee. He was the primary organizer of the community statistics workshop at the Snowbird meeting. This was part of the FESIN series, and that workshop made a huge impact by bringing in the top people in the field of community statistics and exposing many young mycologists to the cutting-edge analytical methods in community ecology. Most recently he helped brainstorm the initiation of the Gordon and Tina Wasson award, the first MSA award targeted toward non-traditional mycologists.

Overall Peter Kennedy is an exceptional scientist, and a modern fungal ecologist who is dedicated to mycology and to the Mycological Society of America. His primary research has done much to meld mainstream ecological theory with fungal ecology, and his publications have had a large and rapidly growing impact on the field. We are happy to be able to recognize him for these achievements with this year’s Alexopolous prize.

The Gordon and Tina Wasson Award: Paul Stamets

*The Gordon and Tina Wasson Award was offered for the first time this year. It was designed to recognize people with non-traditional academic backgrounds who have made outstanding contributions to the field of mycology, or who have widely transmitted significant scientific or aesthetic knowledge about fungi to the general public. Nominees for the award are judged on the basis of the impact and quality of their contributions and on their sustained commitment to the field of mycology.*

Paul Stamets is the first Wasson Award winner. He received a B.S. degree in 1979 from The Evergreen State University in Washington state, where he designed his own curriculum under the guidance of Michael Beug and became a self-taught mycologist. His work at Evergreen resulted in his first two books: *Psilocybe Mushrooms and their Allies* and *The Mushroom Cultivator* (coauthored with Jeff Chilton). A short list of some of his accomplishments include: 1) author of five books on various aspects of mycology, and author or co-author on 32 additional articles, reports or conference proceedings; 2) founder and director of four companies, three of which supply information or materials related to fungi; 3) holder of nine patents with seven more pending, all are on fungal related products; and 4) recipient of multiple awards and recognition for his work on fungi.

Two of his books are worth special attention because of their impact and popularity. Growing Gourmet and Medicinal Mushrooms, published in 2000, is listed as the #1 best seller in the mushrooms section of Amazon, and according to Google Scholar, it has been cited more than 740 times. The reasons for its popularity are clear. It’s loaded with useful information on how to grow many different species of mushrooms, it’s well illustrated, and it’s entertaining to read. Mycelium Running: How Mushrooms Can Help Save the World, published in 2005, is Paul’s most recent book. It has now been cited 137 times, but this does not begin to capture its impact on the general public.

As mentioned above, Paul has been recognized with many awards, and the list is too long to give here. But there is one in particular that is worth highlighting: the AAAS-Lemelson Invention Ambassador award. The award recognizes Paul’s innovative work and his abilities as spokesman for environmental problem solving. Quoting from the website http://www.aaas.org/news/aaas-and-lemelson-foundation-announce-2014-inaugural-class-aaas-lemelson-invention-ambassadors:

“This esteemed group of Ambassadors are from academia, industry, private companies; have approximately 150 patents amongst them; and have demonstrated: (1) a high regard for the role of invention; (2) an invention track record; (3) an accomplished professional career; (4) a commitment to invention’s role in impacting environmental sustainability; and (5) experience or interest in speaking to audiences. Ambassadorships are 12 months long and each Ambassador will be evangelists for invention in strategically selected public engagement venues.”

Paul’s recognition as one of only seven people for this new award is certainly impressive by any measure.

*Continued on following page*
Paul’s message that fungi can help save the world is derived in part by his belief in fungal supplements and medical applications of natural fungal products, and his work with mycoremediation. Paul has been collaborating with others to investigate the effects of fungal supplements, and he is also involved with NIH-supported clinical trials. This work has resulted in several peer-reviewed papers and may ultimately spawn some breakthrough discoveries. His work with mycoremediation has similarly resulted in several papers, and has been applied in several test sites. The majority of his patents are related to “mycoinsecticides”, a topic in which he has recently become very interested. This interest also forms the basis of one of his new companies: Mycopesticide LLC, and it is another manifestation of his idea that fungi can help save the world.

In summary Paul Stamets is a highly original, self-trained member of the mycological community who has had a huge and sustained impact on the field of Mycology. Awarding the first Wasson award to him sets a high bar for the future. It also allows us to recognize a member of our field that the general public and AAAS have already identified as a leader and spokesperson. Sincere congratulations are due to Paul!

**Honorary Awards**

### MSA Fellow: Dr. Jessie Glaeser

MSA Fellows are selected from members who have completed at least 11 years of service after their Ph.D. They are members who are outstanding mycologists on the basis of one or more criteria: a solid record of mycological research, and/or successful teaching and development of teaching materials for mycology, and/or significant service to the Society. This is meant to recognize a core group of mid-career mycological achievers and outstanding MSA volunteers.

Dr. Jessie M. Glaeser, Research Plant Pathologist, USDA Forest Service, Madison, Wisconsin, is MSA Fellow. The MSA recognizes Jessie Glaeser for her scholarship, leadership at the USDA Center for Forest Mycology Research, and particularly for her service as Executive Vice President (EVP, formerly the Secretary). The EVP is not the most visible position in the MSA, but it is essential to the functioning of the Society. The EVP deals with every query and complaint to the society, and often has at least ten items to deal with in a day. In addition to the daily routine the EVP is the head of the complaints department. The EVP has several intense periods a year to obtain and organize reports and suggestions from other members. This is true for the mid-year meeting and for the annual meeting when some chairs of committees fail to turn in reports and must be cajoled to get needed materials ready for the meeting participants and for publication. It can be an aggravating job that consumes one’s time and mental energy.

The three MSA presidents with whom Jessie worked as EVP have great admiration for her as indicated in their statements of support:

“I strongly support Jessie Glaeser for MSA Fellow! I’ve known Jessie since the 70’s, when we were both grad students. Back then, most of us were usually foundering as young scientists, but Jessie was already steady as a rock, well on her way to becoming an outstanding plant pathologist and mycologist. As MSA secretary, she brought much needed skills in organization, fairness and ability to get things done. She certainly made everyone else’s job much easier and pleasant!”

“Jessie was diligent and dependable, and as secretary (now EVP) made MSA work by keeping everyone on track and on schedule, while doing the thankless, but necessary tasks. She did this all in an upbeat way that made it look easy, and she made the other officers of MSA look good. It was a great pleasure to work with her, and she is certainly deserving of being an MSA fellow.”

“It was partially due to observations of the amount of work done by Jessie as MSA secretary that led to the change in title of the office from Secretary to Executive Vice President.”

In addition to serving the MSA as EVP, Jessie worked hard to raise funds when she was on the Endowment Committee, and she also played an important leadership role on the Culture Collection Special Expertise Committee.

Continued on following page
Inoculum 66(4), July 2015

Honorary members are distinguished senior scientists with a long record of significant contributions to the science of fungal biology and who reside in and work in countries other than the U.S. and Canada.

The committee chose Dr. Paul M. Kirk, Royal Botanical Gardens, Kew. In addition to his work on zygomycetes and other fungi, Paul has performed outstanding service to the global mycological community. Through insightful, synthetic work over many years, Paul has helped to build a knowledge infrastructure that enables all of us to teach, communicate, and conduct research about fungi. As the nominator wrote, “I consider Paul Kirk to be one of the great unsung heroes of modern mycology.” Another wrote, “Few individuals have done so much for the mycological community at large as has Kirk.”

Kirk is the senior author of both the 9th and 10th editions (he was the second author of the 8th edition as well) of the Dictionary of the Fungi published by CABI that are widely used by MSA members. The Dictionary remains valuable, because it is comprehensive, unified, and authoritative. According to Google Scholar, the 10th edition has over 4000 citations. The practicing, teaching mycologist might turn to this book several times a day. Importantly, the attitude put forward in the introduction to the work is one of openness and of the realization that the field is vital, changing and that new information is coming forth that will change our views.

Kirk has been the driving force behind the Index of Fungi/Index fungorum venture for several decades. Index Fungorum draws around 3500 users per day with over one million hits per month. Taxonomy is not necessarily the most glamorous biological discipline, but it provides a common language without which effective scientific communication would be impossible. Index Fungorum is an essential resource that supports all of our efforts. Developing this database has been a labor of love. Who among us who works in systematics or in collections does not turn to this on-line resource on a daily or sometime hourly basis? For all of us this has meant hours saved from tracking through the printed volumes of the Index, of copying references and finding them. It is as close as we are likely to get to one stop mycology. That this exists is certainly due to generations of editors and bibliographers; that it exists in its present form is due to Paul Kirk.

Kirk has worked tirelessly to improve nomenclatural practices in mycology. He is a member of the permanent Nomenclature Committee for Fungi of the International Botanical Congress, as well as the International Working Group of TDWG (Taxonomic Databases Working Group). Kirk is also the central figure in development of the British Fungi Database and UK and Ireland Checklist project, and Editor of the Index of Fungi and the Bibliography of Systematic Mycology. He has coordinated with MycoBank to integrate Index Fungorum records, and he has been in the vanguard of fungal names registration and electronic publication. He has been a collaborator for diverse projects in fungal systematics and ecology, such as UNITE, AFTOL, and the Open Tree of Life Project.

Given the prominence of Kirk’s database efforts, the Dictionary, and related synthetic products, it may come as a surprise to some that Kirk is also an accomplished basic taxonomist. His curriculum vitae lists 110 publications (indicated as “not comprehensive for pre-2012”), of which many are taxonomic studies in journals such as Mycologia, Mycological Research, Sydowia, and Kew Bulletin. He has also conducted fieldwork and given training workshops all over the world. Thus, Kirk’s work on fungal nomenclature and biodiversity informatics is rooted in an appreciation of their impact on practicing fungal biologists and students.

Honorary Awards Committee: Meredith Blackwell, Chair; David Hibbett; Mary Berbee; Mary Palm, ex officio, Past Chair.
These awards support ecological research by a postdoctoral, graduate, or undergraduate student, examining fungal interactions in old growth forests or other unique or endangered ecosystems. Studies should address innovative approaches to examining fungal systems or interactions of individuals, or groups of fungi, with hosts or substrates in old growth forest or other sensitive ecosystems.

**Postdoctoral Forest Fungal Ecology Award: Tanya E. Cheeke**

Tanya Cheeke received her B.S. in Sustainable Agriculture/Environmental Science from The Evergreen State College in Olympia, WA and earned her Ph.D. in Biology in the lab of Mitch Cruzan at Portland State University. For her dissertation research, she evaluated the effects of genetically modified maize on arbuscular mycorrhizal fungi in the soil ecosystem. After completing her Ph.D., she moved to Uppsala, Sweden and worked as a postdoctoral researcher with Petra Fransson (Swedish University of Agricultural Sciences), Anna Rosling (Uppsala University), and Rich Phillips (Indiana University) to examine how shifts in the dominant tree species in temperate forests affect the functional and taxonomic diversity of soil fungal communities. She recently received a NSF Postdoctoral Fellowship that integrates microbial ecology and bioinformatics to characterize the role of mycorrhizal fungi in the success or failure of native plant establishment in disturbed ecosystems. This research is in collaboration with Jim Bever (Department of Biology) and Yuzhen Ye (School of Informatics and Computing) at Indiana University.

**Postdoctoral Forest Fungal Ecology Award: Dr. L. Jamie Lamit**

Jamie was born and raised in the San Francisco Bay Area where he spent a good portion of his childhood exploring the surrounding creeks and hills, contracting poison oak. He completed his B.A. in Biology at the University of Montana, and worked as a technician in Minnesota and New Mexico before entering graduate school. Jamie earned a Master’s and Ph.D. degree from Northern Arizona University, studying under Kitty Gehring. His graduate research focused on the influence of genetic variation in cottonwoods on associated fungi, including ectomycorrhizal fungi, endophytes, and lichens. He is now a postdoc working with Erik Lilleshov at Michigan Technological University, where he is studying the community and ecosystem ecology of peatland fungi at local and global scales. In his free time, Jamie enjoys playing music and hunting mushrooms with his wife and two daughters. Jamie is very grateful to receive the Forest Fungal Ecology Postdoctoral Research Award.

**Forest Fungal Ecology Award: M. Rae DeVan**

M. Rae DeVan is a M.S. student at the University of New Mexico in the Taylor lab. She is studying mycorrhizal community composition on both native and non-native host trees within three major fire complexes that burned in 2004 in interior Alaska. She hopes to better understand the role of these fungi in determining successional trajectories following fire. As an undergraduate she studied coprophilous fungal succession on dung as well as the underappreciated Laboulbeniales. When she is not studying fungi she likes to spend her time in the mountains on a bike or skis.

**Forest Fungal Ecology Award: Mia Maltz**

Mia Maltz is a Ph.D. candidate at the University of California Irvine in the Department of Ecology and Evolutionary Biology, currently working under the supervision of Dr. Kathleen Treseder. Mia is broadly interested in the effects of environmental disturbance and global change on fungal communities, and how changes in fungal community composition influence ecosystem function. Before
joining the Treseder Lab of Fungi, Ecosystems, and Global Change, Mia completed her M.S. in Environmental Microbiology under the tutelage of Dr. Michael Cohen. Mia has conducted field mycological research in Ecuador since 2007 and has collaborated with several nonprofit research- and outreach-based initiatives in Ecuador and in California. Mia’s dissertation research investigates fungal biogeochemical weathering processes and the effects of invasive plant management methods on fungal communities in severely degraded coastal sage scrub ecosystems.

**Forest Fungal Ecology Award: Daniel Thomas**

Dan Thomas is a student at the University of Oregon, under Drs. Bitty Roy and George Carroll. He is studying landscape-scale patterns of endophytes in tropical and temperate forests. He completed his undergraduate in biology at the College of William and Mary, in Virginia in 2003, and worked for 9 years as a field technician for land management agencies around the American West conducting botanical surveys. In 2012 he joined Dr. Roy on a research trip to the cloud forest of Ecuador, and became fascinated with ecological mycology. His interests include applying biogeographical analytical tools to fungi, and investigating connections between endophyte and wood-decomposer life histories in fungi. In his spare time he likes to climb rocks and mountains and hang out with his dog, Siesta.

**Martin - Baker Research Award: Allison Walker**

The George W. Martin and Gladys E. Baker Research Award supports new or ongoing research in mycology by a recent Ph.D. mycologist (preferably within 5 years of receiving the degree), who also has significant teaching commitments.

Allison Walker received her B.S. degree with Honors in Botany from The University of Toronto and became enamored with fungi during undergraduate courses with David Malloch. Her passion for fungi intensified during a one year Visiting Scientist position in Cathie Aime’s basidiomycete systematics lab at the ARS USDA Systematic Botany and Mycology Lab in Beltsville, MD. Allison completed her M.S. and Ph.D. in Coastal Sciences (Marine Mycology) at the University of Southern Mississippi under the direction of Jinx Campbell and marine microbiologist Darrell J. Grimes. Her dissertation focused on the biodiversity and ecology of intertidal ascomycetes of the U.S. Gulf of Mexico. As a postdoc, Dr. Walker began research on conifer endophytes through the Department of Chemistry at Carleton University in Ottawa, Canada under the guidance of Keith Seifert (Agriculture and Agri-Food Canada) and David Miller.

She is currently Assistant Professor of Biology at Acadia University in Wolfville, Nova Scotia, where she teaches introductory biology as well as courses in genetics, molecular markers, and plant growth and development. Together with her undergraduate students, Dr. Walker draws on her broad mycological background to study the biodiversity and ecology of coastal plant-associated fungi. Dr. Walker also curates Acadia’s mycological collections and is excited to be bringing an undergraduate mycology course back to Acadia in Fall 2015, where it has not been taught in over 25 years. She is looking forward to teaching field intertidal mycology this summer with David Malloch on Bon Portage Island in the Bay of Fundy. Dr. Walker is incredibly grateful for the mycological mentorship of Cathie Aime, Amy Rossman, Jinx Campbell, Keith Seifert & the Seifert lab fungal dream team, David Miller, David Malloch, and many other MSA members, and strives to be a strong mentor to her students. She stresses the importance of curiosity, persistence, and an open mind, and strives to communicate the importance of mycology to broad audiences. This research funding will allow her to study the enigmatic fungal symbionts of the intertidal brown alga *Ascophyllum nodosum*, which is commercially harvested in Nova Scotia as a crop amendment. Without the encouragement and inspiration provided by the Mycological Society of America, she would not be a professional mycologist.
**John W. Rippon Research Award: Christopher Smyth**

This award supports graduate student research, which employs innovative approaches to studying medically important fungi. Studies may be clinical in nature or may encompass various research areas, such as genetics, systematics, genomics, ecology, distribution, epidemiology, mechanisms of pathogenicity, life cycles, or other appropriate approaches to the study of medically important fungi.

Chris Smyth is a Ph.D. candidate in Plant Pathology and Biogeochemistry at Penn State University. Working with Dr. David Geiser in the Fusarium Research Center, his research focuses on fusaria as human and animal pathogens. His current projects include: understanding the structure and function of filamentous fungal biofilms; elucidating the role of filamentous fungal biofilms in common indoor environments; population genetics of infectious Fusarium species in humans and animals from environmental and anthropogenic reservoirs; and Fusarium systematics and taxonomy. During his undergraduate, at Lock Haven University, Chris worked on projects concerning White Nose Syndrome and marine mycology with Dr. Barrie Overton, which is where he discovered his interest in fungi.

**Clark T. Rogerson Student Award: Josh Kielsmeier-Cook**

The Clark T. Rogerson Student Research Award supports student travel to herbaria and/or field sites to conduct research. Grants are available to undergraduate or graduate students who are members of the Mycological Society of America.

Josh Kielsmeier-Cook is a Ph.D. student in Dr. Robert Blanchette’s lab at the University of Minnesota and is studying the diversity and ecology of Xylaria spp. in Ecuador’s Yasuni National Park. He also works closely with Dr. Maria Ordoñez and Dr. Charles Barnes at the Pontificia Universidad Católica del Ecuador and Universidad de las Américas Quito, respectively. He received his M.S. from the University of Minnesota in January of this year (2015) for his research regarding wheat resistance to stem rust (Puccinia graminis f. sp. tritici). His current work in Ecuador stems from his interest in fungal diversity and his love of the Neotropics. He hopes to determine the species composition of the genus Xylaria within Yasuni as well as uncover possible links between the endophytic and saprobic lifestyles of these fungi.

**Emory Simmons Research Award: Joey Tanney**

The Emory Simmons Research Award supports members of the Mycological Society of America for the study of classification of dematiaceous anamorphs of ascomycetes.

Joey Tanney saw the light during his first Forest Pathology lecture while working on his B.S. Forestry degree at Lakehead University. After completing his degree, he continued on to finish a M.S. Forestry degree under the tutelage of Dr. Leonard J. Hutchison, investigating potential antifeedant mechanisms of fungi in response to mycophagous nematode grazing. He is currently a Ph.D. candidate at Carleton University and the Eastern Cereal and Oilseed Research Centre (Agriculture and Agri-Food Canada) under the supervision of Dr. Keith A. Seifert. His Ph.D. research is focused on the taxonomic and phylogenetic investigation of foliar endophytes of Picea in Eastern Canada. This work spurred his passion in the dreaded discomycete genus Mollisia and related anamorph and teleomorph genera. Joey Tanney is honored to be the recipient of the Emory Simmons Research Award and will use the award to intensively sample Phialocephala, its dematiaceous hyphomycete synanamorphs, and mollisioid sexual states in the Pacific Northwest. His goal is to explore the biodiversity of these taxa in North America and generate data necessary to develop a taxonomic framework and stable classification system to assist users.
Two MSA Graduate Fellowships are awarded annually to promising graduate students in mycology. Applicants are evaluated on the basis of their scholastic merit, research ability, and promise shown as a mycologist.

**MSA Graduate Fellowship: Ko-Hsuan Chen**

Ko-Hsuan Chen is a Ph.D. candidate in the Lutzoni lab at Duke University, where she studies the biology of the hyper-diverse and ubiquitous foliar endophytes. Ko-Hsuan received her B.S. at National Taiwan Normal University in 2008. During her B.S., she studied the pollination biology and thermogenesis of *Typhoniun blumei* (Araceae) in the lab of Dr. Jenn-Che Wang. Ko-Hsuan switched to study fungi for her M.S. under Dr. Yu-Ming Ju’s supervision at National Taiwan University. Her M.S. thesis focused on the systematics of Diatrypaceae in Taiwan, a family of saprotrophs in Sordariomycetes generally associated with angiosperms. These opportunities of working in both plant and fungal labs were eye-opening experiences and subsequently led her to develop interest in fungal endophytes. Ko-Hsuan’s Ph.D. thesis has three main scopes: 1) characterize the phylogenetic diversity of foliar endophytes, especially in the class Eurotiomycetes; 2) assess the evolutionary correlation between endophytes and their plant hosts in Pezizomycotina; 3) investigate the functional switches of endophytes, with an emphasis on the endophytism-saprotrophism transition in the perennial moss *Dichranum scoparium*. Her MSA graduate fellowship proposal focused on the third scope of the thesis. The preliminary data used a metatranscriptomic approach to show that gene expression patterns and active fungal communities in host tissue of different degrees of senescence are largely different. The support from MSA will enable her to further investigate the roles of specific fungal species that might be important players in this bryophyte-fungus symbiosis.

**MSA Graduate Fellowship: Samantha Lee**

Samantha Lee is a 4th year graduate student in the lab of Joan W. Bennett at Rutgers, The State University of New Jersey. She studies volatile mediated plant-fungus interactions. Samantha received her B.S. in Biological Sciences in 2009 from Rutgers School of Environmental and Biological Sciences and later joined the Bennett lab in 2011. Her dissertation research focuses on under-
standing *Trichoderma* spp., their volatile organic compound (VOC) production, and the effects of fungal VOCs on plant growth and development. The MSA Graduate Fellowship will enable her to conduct research to examine the effects of environmental conditions that influence fungal metabolism and volatile production. The research will generate data critical to expanding our current knowledge about fungal VOCs and the mechanisms of biological activities. In addition, Samantha continues to be involved in mentoring undergraduate students and actively engaged with the public and scientific community through various programs and events.

**NAMA Memorial Fellowship: Rachel Koch**

The NAMA Memorial Fellowship is awarded annually to promising graduate students in mycology. Applicants are evaluated on the basis of their scholastic merit, research ability and promise shown as a mycologist.

Rachel Koch received a B.S. in Biology from the University of Notre Dame in 2011. She joined the lab of Dr. Cathie Aime in August 2011 and became a Ph.D. candidate in June 2014 at Purdue University. Her dissertation research focuses on the recently described gasteromycete *Gyranagaster necrorhizus*, known only from the Pakaraima Mountains of Guyana. One of the primary goals of Rachel’s research is to elucidate how *G. necrorhizus* accomplishes spore dispersal, since the morphological characteristics of this fungus are drastically different compared to other gasteromycetes with known dispersal mechanisms. Recently, a community of bacteria were discovered to be residing inside *G. necrorhizus* fruiting bodies. Funds from this award will go towards expression analyses at different maturity stages of *G. necrorhizus* to determine if this fungus receives a fitness benefit for housing bacteria.

**Myron P. Backus Award: Thomas Jenkinson**

The Backus Award is awarded annually to promising graduate students in mycology. Applicants are evaluated on the basis of their scholastic merit, research ability, and promise shown as a mycologist.

Thomas Jenkinson is a Ph.D. candidate at the University of Michigan, advised by Dr. Tim James. Thomas’ dissertation research is focused on the population genomics and evolutionary history of *Batrachochytrium dendrobatidis*, the chytrid pathogen responsible for causing amphibian chytridiomycosis. Thomas received his B.S. from Oregon State University, where he was introduced to mycology by foraging for chanterelles in the forests of the Pacific Northwest with Dr. Joey Spatafora. After graduating, Thomas worked as a technician on the Assembling the Fungal Tree of Life project in Dr. David McLaughlin’s laboratory at the University of Minnesota before earning his M.S. with Dr. Dennis Desjardin at San Francisco State University. His research interests include fungal evolutionary genetics, conservation ecology, and the communication of mycology to the public through effective outreach and education. Thomas plans to use the Backus award funds to genome sequence frog chytrid isolates from a potential hybrid zone in southern Brazil.

**MSA Undergraduate Research Award: Austin McCoy**

Austin McCoy is continuing his Undergraduate research at Purdue University in West Lafayette, Indiana. His research interests are in Plant-Pathogen relationships and management strategies, as well as fungal biodiversity and taxonomy. He is currently working on completing an internal database of all the genetic sequence data for fungal specimens collected in the last twenty years by the Aime lab, which will then be used to compare sequences and identify fungal specimens found in the field. This summer Austin will be going to Guyana to research aerial-rhizomorph forming Marasmioid fungi. Austin will use the funding from the MSA to continue his research with Dr. M. Catherine Aime on the fungi responsible for aerial-rhizomorphs within the Pakairama Mountains of Guyana.

**Constantine J. Alexopoulos Travel Award: Daniel Thomas**

Dan Thomas is a student at the University of Oregon, under Drs. Bitty Roy and George Carroll. He is studying landscape-scale patterns of endophytes in tropical and temperate forests. He completed his undergraduate in biology at the College of William and Mary, in Virginia in 2003, and worked for 9 years as a field technician for land management agencies around the American West conducting botanical surveys. In 2012 he joined Dr. Roy on a research trip to the cloud forest of Ecuador, and became fascinated with ecological mycology. His interests include applying biogeographical analytical tools to fungi, and investigating connections between endophyte and wood-decomposer life histories in fungi. In his spare time he likes to climb rocks and mountains and hang out with his dog, Siesta.

**Margaret Barr-Bigelow Travel Fund: M. Rae DeVan**

M. Rae DeVan is a M.S. student at the University of New Mexico in the Taylor lab. She is studying mycorrhizal community composition on both native and non-native host trees within three major fire complexes that burned in 2004 in interior Alaska. She hopes to better understand the role of these fungi in determining successional trajectories following fire. As an undergraduate she studied coprophilous fungal succession on dung as well as the underappreciated Laboulbeniales. When not studying fungi she likes to spend her time in the mountains on a bike or skis.

**William C. Denison Travel Award: Rob Powers**

Rob is finishing his M.S. in Ecology and Evolutionary Biology at the University of Michigan this Summer, and will be continuing his studies in Dr. Tim James’ lab starting his Ph.D. program this Fall. Rob received his undergraduate degree from Wesleyan University where he studied experimental music and computer science. After working in non-profit IT sector in the San Francisco Bay Area for 10 years, Rob found his true calling in his passion for mycology, joining Dr. Tim James lab as a Master’s student in 2013. Rob’s M.S. research is focused on the genetics of sexual selection and investigations of the Buller Phenomenon in the fungus *Coprinellus disseminatus*. For his Ph.D. work, he is interested in researching the mechanisms of epigenetics and gene regulation during nuclear exchange in the Basidiomycetes, as well as searching for evidence of genomic imprinting. This past semester, Rob worked as Graduate Curatorial Assistant at the University of Michigan Herbarium, where he assisted in digitizing fungal specimen data as part of the Macrofungi Collection Consortium. In addition to his research interests, Rob is an avid mushroom forager and enjoys actively collecting fungi for the MICH Herbarium.

**Ralph Emerson:**

Miriam Hutchinson is a third year Ph.D. student with Dr. Don Natvig at the University of New Mexico. She also received her B.S. from UNM and worked in Dr. Natvig’s lab as an undergraduate under the mentorship of Dr. Andrea Porras-Alfaro, studying endophytes associated with various grasses and pinyon pine trees. Miriam’s current research interests are in the ecology and genetics of fungal thermophiles, primarily those in the family Chaetomiaceae. She has con-
ducted a survey across the western United States to isolate new species of thermophiles, as well as to identify the range and distribution of known species. Broadly, Miriam is interested in fungal biogeography, and how fungal communities respond to and structure communities of other organisms. This interest has led her to study the link between fungal endophytes and saprotrophs in an arid land ecosystem at the Sevilleta National Wildlife Refuge.

R.L. Gilbertson Travel Award:
Joey Tanney

Joey Tanney saw the light during his first Forest Pathology lecture while working on his B.S. Forestry degree at Lakehead University. After completing his degree, he continued on to finish a M.S. Forestry degree under the tutelage of Dr. Leonard J. Hutchison, investigating potential antifeedant mechanisms of fungi in response to mycophagous nematode grazing. He is currently a Ph.D. candidate at Carleton University and the Eastern Cereal and Oilseed Research Centre (Agriculture and Agri-Food Canada) under the supervision of Dr. Keith A. Seifert. His Ph.D. research is focused on the taxonomic and phylogenetic investigation of foliar endophytes of Picea in Eastern Canada. This work spurred his passion in the dreaded discomycete genus Mollisia and related anamorph and teleomorph genera. Joey Tanney is honored to be the recipient of the Emory Simmons Research Award and will use the award to intensively sample Phialocephala, its dematiaceous hyphomycete synanamorphs, and mollisioid sexual states in the Pacific Northwest. His goal is to explore the biodiversity of these taxa in North America and generate data necessary to develop a taxonomic framework and stable classification system to assist users.

Richard P. Korf Travel Award:
Danny Haelewaters

Danny Haelewaters is a Ph.D. Candidate in the lab of Dr. Donald H. Pfister. He studies the Laboulbeniales (Ascomycota, Laboulbeniomycetes), microscopic ectoparasites of arthropod hosts. Born and raised in Belgium, he earned his undergraduate degree in Veterinary Medicine at the University of Antwerp and his Master’s degree in Biology at Ghent University, where he started working with the Laboulbeniales under supervision of Dr. Annemieke Ver- beken and Dr. André De Kesel. After that, he went to live in rural France for a year before entering a Ph.D. program in the Department of Organismic and Evolutionary Biology at Harvard University. His research focuses on the Hesperomyces virescens species complex, which occurs on many lady beetle hosts (Coleoptera, Coccinellidae). To complete his work, Danny has done field work in Georgia (in collaboration with the USDA), Costa Rica, Panama, and (Peninsular) Malaysia. This year at MSA Danny will present the results of dual fungal infection experiments on two species of lady beetles and preliminary data on his species-level phylogenetic work in the Hesperomyces virescens species complex.

Everett S. Luttrell Travel Award:
Catharine Allyssa Adams

Cat Adams is interested in how secondary metabolites shape plant-fungal interactions. She just finished the first year of her Ph.D. program in Tom Bruns’ lab at UC Berkeley, in the Department of Plant and Microbial Biology. There, Cat studies the invasive death cap mushroom, Amanita phalloides, and hopes to reveal how the deadly poisonous amatoxins play a role in the death cap’s successful invasion. Previously, Cat studied the wild Bolivian chili pepper Capsicum chacoense, which produces spice to deter a diverse set of fungal seed pathogens. Her Master’s work with Anne Pringle examined how the fungi that parasitize C. chacoense have evolved tolerance to spice. Cat is a PI on a grant from the National Natural Science Foundation of China, studying how AM fungal inoculation can alleviate the phytotoxic effects of heavy metals on plants. She also has an ongoing collaboration with the timber company Weyerhaeuser. The team researches the effects that pine and eucalyptus plantations have on the native plant and fungal diversity of the Pampas grasslands of Uruguay.

Emory G. Simmons Travel Award:
Teeratas Kijpornyongpan

Teeratas has been a M.S. student in the Aime lab at Purdue University since 2013. His project primarily focuses on systematics and phylogenomics of the group of fungi called

Continued on following page
Ustilaginomycotina. Upon completion of resolving ordinal-level evolutionary relationships in the subphylum, Teeratas is going to start his Ph.D. program with interest in evolutionary histories of pathogenicity and reproductive biology through comparative genomics, genetics, and molecular biology.

**Harry D. Theirs:**
**Anna Bazzicalupo**
Anna Bazzicalupo is a Ph.D. candidate at the University of British Columbia under the supervision of Mary Berbee. Before joining the Berbee lab she received a B.S. (Hons.) in Biology at the University of Aberdeen and an M.S. in Biodiversity and Taxonomy of Plants at the Royal Botanic Garden in Edinburgh. Thanks to her mentors at RBGE, during her Master’s she discovered her interest in fungi and worked on the species of a group of Russulas for her final project. She has been taken with Russulas since then and her doctoral project continues on the systematics and ecology of Russulas in the Pacific Northwest.

**James M. Trappe Travel Award:**
**Terry Torres Cruz**
Terry Torres Cruz completed her B.S. in Biotechnology Engineering at Instituto Tecnológico de Costa Rica in 2014. She decided to do her undergraduate thesis in the United States and was mentored by Dr. Andrea Porras-Alfaro. It was during this period that she developed her interest in mycology and joined the graduate program at Western Illinois University to continue her work with fungi. Terry is currently a M.S. student and her research project focuses on the study of the diversity and distribution of heavy metal tolerant fungi of surface soils on a temperate pine forest.

**Mentor Travel Award Committee:** Matias Cafaro, Chair; Brian Perry; Scott Bates; Mahajabeen Padamsee; Melissa McCormick, ex-officio, Past Chair.

**Awards information was provided by MSA Award Coordinator:**
**Dr. Andrea Porras-Alfaro, Department of Biological Sciences, Western Illinois University, a-porras-alfaro@wiu.edu.**

**Editor’s Note**
It is a pleasure to present the 2015 MSA award recipients in this issue. Look for winners of the best student presentations in the next issue, after the annual meeting.

The MSA annual meeting will be held jointly with the Botanical Society of America, abstracts are being compiled by them and will not be published in the Inoculum. Look for abstracts at the meeting web site here: [http://2015.botanyconference.org/](http://2015.botanyconference.org/)

And remember to bring donations and lots of cash to the MSA auction.

See you in Edmonton!

—Julia Kerrigan
Inoculum Editor
jkerrig@clemson.edu
Greetings! This is my last *Inoculum* column as Executive Vice President (EVP) for the Society. I want to express my deepest gratitude to all my mycological friends and colleagues for their support over the past three years. Serving as part of the Executive Council has been a great experience, and I am looking forward to passing on my duties, along with extensive files and advice, to our newly elected EVP, Sarah Bergemann. One of the best parts of serving as EVP is being able to work closely with the other officers. I was privileged to have served under the leadership of Presidents Mary Berbee (2012-2013), Joey Spatafora (2013-2014), and Jean Lodge (2014-2015), and leave office knowing that the Society is in the very capable hands of incoming President Kerry O’Donnell (2015-2016). I also have enjoyed working closely with MSA Treasurers Marc Cubeta (my mycological big brother) and Sharon Cantrell, Webmaster Antonio Izzo, *Inoculum* Editors Don Natvig and Julia Kerrigan, the entire Mycologia editorial team, and the sixteen Councilors who have served MSA during the past three years. Finally, I want to thank Chris Lapine and Taylor Hrabe at Allen Press for all their work on the Society’s ballots, membership renewal, and communications. It takes a large team of hard-working folks to keep MSA running smoothly!

**Council Business:** President Lodge, President-Elect Kerry O’Donnell, and I participated in a phone conference with Allen Press’ Chris Lapine and Taylor Hrabe on June 2 to discuss handling Emeritus renewals. One poll was sent out for Council to approve $500 for table sponsorship at the Eighth International Conference of Mycorrhiza to be held August 3-7, 2015 in Flagstaff, AZ. The call for annual reports and agenda items went out to committee chairs in June. Annual reports will be included in the meeting packet for the Annual MSA Council Meeting, which will be held July 25 from 9-2 pm at the Shaw Conference Centre in Edmonton, Alberta (see *Annual Meeting* below), and will be published in an upcoming issue of *Inoculum*.

**Spring Ballot:** A big thanks to all of our members who participated in the Spring Ballot. We had a 40% response rate, and according to Allen Press’ Chris Lapine, the response rate for ballots by other societies he manages is closer to 25%. The results of the Spring Ballot are published elsewhere in this issue of *Inoculum*. I want to thank everyone who agreed to be on the Spring Ballot, and welcome all of our new members of Council.

**Annual Meeting:** MSA will meet with the Botanical Society of America (BSA) and 12 other societies at the Shaw Conference Centre in Edmonton, Alberta, July 25-29. For more information including a complete list of submitted abstracts, field trips, and meeting schedule, see [http://2015.botanyconference.org](http://2015.botanyconference.org)

**New Members:** I would like to extend a warm welcome to the following new and returning members who joined MSA since May. Their membership will be formally approved at the 2015 Annual Business Meeting in Edmonton:
- **Canada:** Denis Beaudet, Nicola Day
- **Hungary:** Krisztina Krizsan
- **Saudi Arabia:** Mussab Hassan
- **United States:** Wes Beaulieu, Adam Nolan Trautwig, Connor Guidry, Michael A. McCormick, Samuel Thomas David, Eric Carpenter, Lauren Wayne Jackson III, Kamyar Aram, Kevin Strychar

**REMINDER: MSA Directory Update:** Did you receive the email notices on the 2015 membership renewal and on the call for nominations? If not, it may be because your email address is not up to date in the MSA directory. The Society relies on email to bring you timely information on MSA news, awards, elections, meetings, and other activities. To ensure that you receive those important Society blast emails and *Inoculum*, take a few minutes to confirm the accuracy of your contact information in the online directory. This can be accessed via our website ([www.msa.org](http://www.msa.org))—look for the “Member Services” box in the bottom left corner of the page. If you have renewed your membership and don’t find your name in the online directory, contact me for assistance. If you need assistance with updating any of your membership information, contact our Association Manager at Allen Press, Taylor Hrabe ([thrabe@allenpress.com](mailto:thrabe@allenpress.com)).

—Lori Carris
MSA Executive Vice President
carris@wsu.edu
Election of MSA officers and councilors. A slate of candidates was assembled by nomination from the membership and from the Nominations Committee (Rytas Vilgalys, Chair). Votes were close, and we thank Donald Natvig, Brian Shaw, Jonathan Shilling, Ning Zhang, Jolanta Miadlikowska, and Jana U’Ren for running for election in these offices and positions. Below, we announce the elected officers and councilors for MSA 2015.

Vice President–Tom Volk
Dr. Volk has been a MSA member since 1980. He received his Ph.D. at the University of Wisconsin-Madison (1988) with Tom Leonard and continued in mycology as a postdoctoral associate at the Center for Forest Mycology Research (1989-1996) with Hal Burdsall. Dr. Volk is currently a Professor of Biology at the University of Wisconsin-La Crosse where he has made major contributions to teaching mycology. He was recognized for these prodigious efforts with the Weston Award for Excellence in Teaching Mycology in 2003. His site http://TomVolkFungi.net is a “go to” resource for fungal information and images. Dr. Volk’s current research is largely student driven and thus covers a broad array of topics in mycology. In recognition of his contributions to mycological research and outreach, he was named Fellow of the MSA (2008) and received the NAMA Award for Outstanding Contributions to Amateur Mycology (2005). Dr. Volk has an excellent record of service to the MSA and mycological studies as well. He established the John Rippon Fellowship in Medical Mycology (2008), served as webmaster for the MSA web page (1997-2001), on the Mycologia Advisory Committee (2012-present), and on numerous additional committees.

Executive Vice President–Sarah E. Bergemann
Dr. Bergemann received a M.A. Biology (1998) at Humboldt State University and a Ph.D. Botany at the University of Wyoming (2002). She currently is an Associate Professor in the Department of Biology at Middle Tennessee State University where she has served on the faculty since 2007. Dr. Bergemann teaches courses in mycology, biostatistics, and genetic analysis.

COUNCILORS

Cell Biology and Physiology–Terry W. Hill
Dr. Hill received his Ph.D. from the University of Florida (1978) and is currently Professor of Biology at Rhodes College, Memphis, TN. His teaching includes mycology and medical mycology courses for biology majors as well as “Fascinating Fungi” for non-majors. Dr. Hill’s research program focuses on cell wall metabolism and cytokinesis in Aspergillus nidulans, particularly the structure and function of the actomyosin contractile ring. He has been a MSA member since 1974 and served on numerous committees such as the Awards Committee (member & Chair) and Cell Biology & Genetics Committee (member & Chair).

Ecology and Pathology–Andrea Porras-Alfaro
Dr. Porras-Alfaro received a M.S. at University of Puerto Rico and Ph.D. at The University of New Mexico. She is currently an Assistant Professor in the Department of Biological Sciences at Western Illinois University where she teaches mycology and medical mycology and supervises research projects for more than 30 undergraduate and graduate students. Her research focuses on the study of fungal symbiotic associations, including root-associated fungi, in arid and semiarid ecosystems. Dr. Porras-Alfaro has published numerous articles on fungal endophytes, and classification of environmental samples using the RDP classifier. Dr. Porras-Alfaro serves as an ad-hoc reviewer for a number of journals and grant programs, has organized MSA workshops, served as a member and chair of the MSA Ecology committee, and currently is the MSA Awards Coordinator.

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Continued on following page
Our next featured student, Aaron David, is a 5th year graduate student at the University of Minnesota, co-advised by Eric Seabloom and Georgiana May. Aaron is in the Ecology, Evolution, and Behavior department, but is also finishing a Ph.D. minor in Ecological Risk Assessment as a trainee in the Introduced Species and Genotypes IGERT program at UMN. He has a passion for mycology, but his research history reveals breadth as well as depth.

Aaron earned a B.A. in Environmental Studies at Washington University in St Louis. As an undergrad and lab technician, he did research in Tiffany Knight’s lab and the Tyson Research Center, working to understand how plant-pollinator networks have changed over the last century. Later Aaron studied invasive and native plants as an intern at the Archbold Biological Station in Florida. It was this work with invasive plants that ultimately led Aaron to study fungi. Intrigued by the role fungal diseases could play in mediating plant invasion, Aaron was curious if fungal disease was relevant in the beachgrass invaded dunes he studied. Aaron cultured many fungi from these beachgrasses, and found that endophytes were an even more fascinating system to him than disease. His Ph.D. research now aims to understand the drivers of endophyte communities, and the roles of these fungi on beachgrass invasion in coastal dunes of the Pacific Northwest. He recently published an article titled “Invasive Congeners Differ in Successional Impacts across Space and Time” in PLOS ONE. The MSA has awarded Aaron the Backus Award as well as two travel awards to give talks on his endophyte research.
Inoculum 66(4), July 2015

Brian Looney spent his youth exploring the marshes of the Chesapeake Bay and the forests of Tennessee. He received his Bachelor’s degree in English from Earlham College in Richmond Indiana, and then taught in Japan for two years. It was there, while photographing fungi and thinking about biology, that he became interested in mycology. Brian conducted post-graduate research in the Matheny Lab and is now a third year PhD student at the University of Tennessee in the Department of Ecology and Evolutionary Biology.

Brian has done fieldwork in Northern Thailand, Mt. Rainier National Park, Great Smoky Mountains National Park, the Carpathian Mountains, Pisgah National Forest, and Pascagoula NWR. His current research focuses on systematics, patterns of diversification, and functional genomics in the family Russulaceae. Brian is collaborating with taxonomic experts and regional mycological clubs to revive species concepts of North American members of the genus Russula, with a particular focus on the southeast U.S. He is broadly interested in the distribution of species and what evolutionary dynamics have been important in shaping patterns of ectomycorrhizal biodiversity. To this end, he has been investigating worldwide patterns of distribution and diversification of Russula to test biogeographic hypotheses pertaining to ectomycorrhizal fungi. Brian also recently began a project to sample genomes from major groups in the Russulaceae to determine functional diversity within this clade of ectomycorrhizal fungi.

Brian won the Howard E. Bigelow Mentor Travel award to attend the 2014 MSA Annual Meeting at Michigan State University. Brian’s talk was titled “Global diversity and host evolution in a diverse clade of ectomycorrhizal fungi (Russula, Russulales).” This was Brian’s first MSA conference, but it was an important one. The meetings with professors and students from a variety of different backgrounds and research interests shaped his future research directions. His favorite part of the conference was the pre-conference foray, where he was able to interact with other field mycologists while experiencing a novel forested environment. He was particularly impressed by the giant Populus, Tilia, and Quercus macrocarpa trees.

After he publishes the study he presented at MSA, Brian will be sending DNA and RNA samples derived from important groups within Russulaceae for genome sequencing. Finally, he will collect specimens from the southeast U.S. at

Student Award Spotlight: Brian Looney

Aaron is also an active member of the UMN Mycology Club, a grad student organized group that engages in academic and outreach activities. Recently, Aaron and a few other students put together a set of handy mushroom flashcards so beginners can learn the basics of mushroom ID. You can download the flashcards here http://mycology.cfans.umn.edu/id-cards/. In his precious spare time, Aaron enjoys taking his Labrador-retriever mix puppy, Dakota, to the dog park. This amazing young mycologist is applying for post-docs now, so check out his personal website (https://asdavid.wordpress.com/) and shoot him an email if your lab has an opening!

Q: Which professors influenced your research the most, and how?
A: Betsy Arnold! Her work got me hooked on endophytes!

Q: Do you have a car?
A: A 2010 Honda Fit – this car fits anywhere and you can fit anything in it!

Q: Any crazy stories from research, in the lab or field?
A: My first week as an intern at Archbold Biological Station in Florida, I got swarmed by fire ants and had to strip down in front of the whole crew.

Q: Dakota, would you like to add anything?
A: Woof!

—Aaron David, Cat Adams

One of Aaron’s study sites, a coastal dune invaded by beachgrass in Pacific City, Oregon.

Continued on following page
the NAMA foray, Gulf States Mycological Society’s summer foray, and in the Great Smoky Mountains National Park as part of an ongoing systematic revision of a clade of small, pink species of *Russula*.

**Q:** *Who is your mycology idol?*

**A:** William Alphonso Murrill. He described over 1,500 plants and fungi throughout his career, most of which are from the southeast U.S. He was the first to discover the fungus responsible for chestnut blight, and while working at the New York Botanical Garden he founded and was the first editor of the journal *Mycologia*. Over 100 species of *Russula* were described by Murrill from the city of Gainesville, FL alone.

**Q:** *Do you have any hobbies?*

**A:** Hiking, running, SCUBA, traveling with my wife, trying as many different craft beers as possible.

—Brian Looney

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**Contribute to MSA Award Funds**

Now is a good time to contribute to a Mentor Travel Fund or Research Fund so the Society can offer awards to our young investigators. Just go to the MSA website, click on MSA Business, then click on Allen Press, and you will see the byline in black that states DONATIONS. All the Mentor Travel Funds and Research Categories are listed. If you want to make a contribution by phone or mail, contact the MSA Business Office at 1-800-627-0326.

To make a Mentor Travel award this year, we would like the fund to be close to $10,500 so we can make a $500 award and still retain $10,000 in principle. The Kramer, Thiers, Trappe, Fuller/Emerson/Whisler, Butler, H. Bigelow, and Korf funds are all close to that amount. Thank you for your contributions.

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**Welcome your new Student Section Executive Board**

Heres to another great year

Chair Jessie Uehling, Vice Chair Chris Smyth, Secretary Ryan Deaver, Treasurer Adriana Romero, Communication Chair Donald Nelson, Webmaster Terry Torrez Cruz, Postdoctoral Representative Tanya Cheeke
Fungi in the News

In case you missed it, some articles about fungi....

Researchers produce jet fuel compounds from fungus

“Researchers have found a way to make jet fuel from a common black fungus found in decaying leaves, soil and rotting fruit. The researchers hope the process leads to economically viable production of aviation biofuels in the next five years.”

From: https://news.wsu.edu/2015/05/05/researchers-produce-jet-fuel-compounds-from-fungus/#.VYbxMUYv7Zc

Read the original article here:

Bats Successfully Treated for White-Nose Syndrome Released Back into the Wild

“For the first time, scientists have treated and healed bats infected with White-Nose Syndrome.”

From: https://news.wsu.edu/2015/05/05/researchers-produce-jet-fuel-compounds-from-fungus/#.VYbxMUYv7Zc

Banana killer a potential ‘big nightmare’ that threatens global harvests

A type of Fusarium wilt appeared this year in Australia’s main banana-growing state after spreading to Asia and Africa.

From: http://www.thestar.com/business/2015/06/04/banana-killer-a-potential-big-nightmare-that-threatens-global-harvests.html

Mycologist’s Bookshelf

We have no reviews for this Bookshelf installment, but there is one new book—“Mushrooms of Nepal”—available for review. If you are interested in reviewing a book, or know of one that should be reviewed for Inoculum, please contact me (robert.marra@ct.gov) and I will have the book “drop-shipped” directly from the publisher; this will streamline the process at my end and will save our Society considerable shipping expenses. A book goes to the first person requesting it, and I ask that you get your reviews to me in a reasonably timely manner. We have a growing list of books for which we are still waiting on reviews, as are the publishers who provided these books free of charge except the expectation of a review. If you are among those (you know who you are!) with outstanding and unreviewed books, please get these reviews done so we can honor our agreements with the publishers. If you have changed your mind about doing the review, please contact me, and we can re-list it as available for review.

—Bob Marra


MYCOLOGICAL CLASSIFIEDS

Mycology Books for Sale

The following books in Mycology & related fields are for sale. If interested in any of the titles please contact Rosy Chacko by email, vetticat@gmail.com
Illustrated genera of Ascomycetes . R.T. Hanlin 1990
Dermatophytes their Recognition and Identification. G. Rebell & D. Taplin revised edition 1974
Plant Disease Syllabus. C.B. Kenaga et al 1971
Tropical Polypores. W.A. Murrill 1915
The Polyporaceae of the United States, Alaska, and Canada. L.O. Overholts 1967
The Tree Ruts of western Canada. W.G. Ziller 1974

Fifth Kingdom

The Fifth Kingdom on CD-ROM is now available in an extensively updated form for teaching purposes. Available for class orders at $25 per copy. The book “The Outer Spores - mushrooms of Haida Gwaii” is also available. Check details at: www.mycolog.com

Biological Control, Biotechnology and Regulatory Services

Center for Regulatory Research, LLC specializes in regulatory permit application services for biological control and biotechnology organisms/products. Let us evaluate your research discoveries for commercial potential and environmental impacts. We also offer assistance with writing proposals for SBIR grant programs (Small Business Innovation Research) that fund new commercial ventures. Contact Dr. Sue Cohen by email (sdcohen@regresearch.com) or by phone (612-246-3838). For more information about our company, visit our website at www.regresearch.com.
Faculty Positions: Plant-Related Microbial Biology

The Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan, is inviting applications for research-oriented faculty positions at levels of Assistant or Associate Research Fellows (equivalent to Assistant or Associate Professors). Applicants should hold a Ph.D. degree plus postdoctoral training, with expertise in studies of plant-related microbial biology or plant-microbe interactions. Successful candidates will receive excellent starter funds followed by annual intramural support.

Academia Sinica, the foremost academic institution in Taiwan, comprises 31 world-class research institutes/centers and provides active research environment with state-of-the-art resources. The Institute of Plant and Microbial Biology is a premier research institute with focused studies on functioning of plant and microbial biology (http://ipmb.sinica.edu.tw/index.html/?language=en).

English is the official language in scientific seminars. Proficiency in Chinese language is not essential but basic communication skill will be helpful.

The application folder should include 1) cover letter, 2) curriculum vitae, 3) a statement of research accomplishments, and 4) future research plans. The application folder (in PDF format) and, separately, three letters of recommendation should be sent via email to:

Dr. Erh-Min Lai, chair of Search Committee
c/o Ms. Christine Hsing (email: chsing@gate.sinica.edu.tw)
Institute of Plant and Microbial Biology, Academia Sinica
128, Sec 2, Academia Rd, Nankang, Taipei, Taiwan 11529

The review of applications will begin on August 15, 2015 and continue until the positions are filled.

Postdoc Fellowship: Plant Health – Kew

Kew is the world-leader in plant diversity science, a UNESCO World Heritage Site, and a major visitor attraction, that shows the importance of plants in all our lives. Kew’s mission is to inspire and deliver science-based plant conservation worldwide, enhancing the quality of life.

This role forms a key part of RBG Kew’s new Natural Capital and Plant Health Department (NCPH), which is geared to research on plants and fungi that are directly, indirectly or potentially utilisable for economic and societal purposes. NCPH applies the full range of diversity research techniques to increase knowledge of those plants and fungi. The research outputs will lead to sustaining and enhancing plant and fungal natural capital, in particular where it underpins provisioning, regulating and supporting ecosystem services.

You will join Kew’s science staff as a postdoctoral research fellow, conducting and publishing outstanding research within the Plant Health theme, and developing funding streams to support your science, alongside a cohort of other research fellows. You will be a future leader in the science disciplines pursued at Kew. The fellowship will provide you with the opportunity and skills to establish yourself as an independent researcher and to gain international recognition. At the end of the fellowship you will be a fully equipped research leader who is well-placed to secure full-time employment in science.

You will be an outstanding early career scientist, with a PhD and specialist knowledge in a field of fungal diversity or ecological science relevant to plant health, awarded within the past eight years and, ideally, some postdoctoral experience. You will have a proven aptitude for delivering excellent science publications and demonstrated potential to raise science income. You will be an outstanding and enthusiastic communicator who is ready to engage with students, peers and the general public.

£26,067 – £35,505 per annum depending on skills and experience. Full-time, three years fixed term contract. Benefits include 30 days holiday per year, a choice of pensions, a flexible benefits scheme as well as a great working environment.

For further information, please visit our website https://careers.kew.org/vacancy/early-career-research-fellowship-in-plant-health-223201.html

Closing date: 13 July 2015.

We are committed to equality of opportunity and welcome applications from all sections of the community. We guarantee to interview all disabled applicants who meet the essential criteria for the post.
Position Summary: This position provides technical support for beet research. Responsibilities include: assisting with carrying out field, greenhouse, and laboratory analyses and field management as required; field work which includes assisting in the management of crops, primarily sugar beet, preparing planting plans and organizing seed for trials, collection of field data on stand, participation in inoculations of disease nurseries, and assisting in disease ratings and quality sampling and assessment; assisting in collection and assembly of annual research report; assisting in website and presentation management; assisting in greenhouse material preparation during the winter months.

Location: The position will be primarily located at the Michigan State University Saginaw Valley Research and Extension Center near Frankenmuth, MI.

Minimum requirements: Knowledge equivalent to that which normally would be acquired by completing a four-year college degree program in crop science, plant pathology, ecology, horticulture, agronomy, soil science, biology, natural resources or a related field; one to three years of related and progressively more responsible or expandable work experience in a laboratory or field program carrying out plant genetics, plant pathology, and/or agronomic research; experience with statistical analysis; experience with data-base; or an equivalent combination of experience and/or training. Ability to operate basic farm equipment, such as tractors. Commercial Pesticide Application Certification or the ability to acquire within the first 3 months.

Desired Qualifications: Knowledge and training in agronomic practices for the area including safe application of farm chemicals; effective communication and organizational skills; Commercial Pesticide license or the ability to acquire within the first year. Michigan Commercial Driver’s License or the ability to acquire within the first year.

This is an off-date position funded for one year with possible extension contingent upon funding renewal.

Salary Range: $40,851 Pay Grade Level: 11

Application: Qualified individuals may submit applications at https://jobs.msu.edu/, posting number 1476 no later than July 1, 2015. Application materials must include: cover letter, resume, and contact information for three professional references.

MSU is an affirmative-action, equal-opportunity employer. MSU is committed to achieving excellence through a diverse workforce and inclusive culture that encourages all people to reach their full potential. The University actively encourages applications and/or nominations of women, persons of color, veterans and persons with disabilities.

Graduate Student: Fungal Ecology

The Hynson lab at the University of Hawaii Manoa, Department of Botany is currently recruiting highly motivated, enthusiastic, and well-qualified graduate students for Fall 2016 enrollment. In particular, I am seeking students interested in the ecology and evolution of terrestrial orchid mycorrhizae. However, students with strong backgrounds in fungal biology, ecology and/or evolution that are interested in systems other than orchid mycorrhizae will also be considered. I am primarily seeking graduate student applicants at the PhD level, but will consider MSc applicants as well. Interested parties should send by email me a copy of their current academic resume or CV, their unofficial transcripts and a brief statement of their research interests for grad school.

For more information on the Hynson Lab and how to apply see: http://www2.hawaii.edu/~nhynson/Hynson_Lab/Welcome.html or contact Nicole Hynson at nhynson@hawaii.edu

M.S. Student: Coastal Mycology

Come study fungi in beautiful Nova Scotia!: Graduate Student Position in Coastal Mycology. I am currently accepting applications for an M.S. student to study coastal fungi of the Bay of Fundy beginning in September 2015. Current funded research projects in my lab include studies of endophytes of intertidal and coastal plants, marine fungi and hydrocarbon degradation, DNA barcoding of Acadia’s E.C. Smith Herbarium fungal collections and the role of fungi in coastal wetland restoration.

Applicants for the current opportunity must hold a B.S. in an appropriate biological science (e.g., biology, botany, microbiology, plant pathology, marine biology), a GPA of 3.67 in the final 2 years of undergraduate study, and strong spoken and written English language skills. As well, they must meet requirements for admissions as a graduate student to Acadia University. Preference will be given to candidates with field and/or laboratory experience in mycology, including cultivation and characterization of fungi. The current opportunity is only open to Canadian citizens.

For additional information regarding this position, please contact me at Allison.Walker@acadiau.ca with ‘studentship’ in the subject line. Interested applicants should send me curriculum vitae, contact information for three references, and a cover letter describing their interest and experience in mycology. Please refer to the following websites for additional information:

http://gradstudies.acadiau.ca/Graduate_Admissions.html
http://biology.acadiau.ca/graduate.html
http://biology.acadiau.ca/home.html
http://www2.acadiau.ca/about-acadia.html
https://bayoffungi.wordpress.com/
Below is an alphabetical list of websites featured in *Inoculum*. Those wishing to add sites to this directory or to edit addresses should email jkerrig@clemson.edu. *Unless otherwise notified*, listings will be automatically deleted after one year (at the editors discretion).

**MYCETOLOGY ON-LINE**

In depth information about the genus *Amanita*
www.amanitaceae.org

A New Web Page About Tropical Fungi, Hongos Del Parque "El Haya"
(58-5)
hongosdelhaya.blogspot.com/

ASCOFrance.com, a very useful site for illustrations of ascomycetes including anamorphs (accessible in both French and English)
ascofrance.com/?lang=us

Bibliography of Systematic Mycology
www.speciesfungorum.org/BSM/bsm.htm

Cold Spring Harbor Laboratory; Meetings & Courses Programs
(58-2)
meetings.cshl.edu

Collection of 800 Pictures of Macro- and Micro-fungi
www.mycolog.com

Cornell Mushroom Blog (58-1)
http://blog.mycology.cornell.edu/

Cortbase (58-2)
andromeda.botany.gu.se/cortbase.html

Corticoid Nomenclatural Database (56-2)
www.phyloinformatics.org/

The Cybertruffle internet server for mycology seeks to provide information about fungi from a global standpoint (59-3).
www.cybertruffle.org.uk

Cyberliber, a digital library for mycology (59-3).
www.cybertruffle.org.uk/cyberliber

Cybernome provides information about fungi and their associated organisms, with access to over 548,000 records of scientific names (59-3).
www.cybertruffle.org.uk/cybernome

Dictionary of The Fungi Classification
www.indexfungorum.org/names/fundic.asp

Fungal Environmental Sampling and Informatics Network (58-2)
www.bio.utk.edu/vesin/

German Mycological Society DGIM
www.dgfm-ev.de

Glomeromycota PHYLOGENY
amf-phylogeny.com

International Society for Human and Animal Mycology
www.isham.org

Medical Mycology journal
www.isham.org

Mycologia
mycologia.org

Humboldt Institute — Located on the eastern coast of Maine, the institute is known for the series of advanced and professional-level natural history seminars it has offered since 1987, along with ecological restoration seminars and expeditions to the neotropics. It publishes the two peer-reviewed journals, *Northeastern Naturalist* and *Southeastern Naturalist*.
www.eaglehill.us

Taxonomy of the Hysteriaceae & Mytilinidiaceae (Pleosporomycetidae, Dothideomycetes, Ascomycota) to facilitate species identification using a set of updated and revised keys based on those first published by Hans Zogg in 1962. 59(4)
www.eboehm.com/

Index of Fungi
www.indexfungorum.org/names/names.asp

Interactive Key to Hypocreales of Southeastern United States (57-2)
nt.ars-grin.gov/sbmlweb/fungi/keydata.cfm

ISHAM: the International Society for Human and Animal Mycology
www.isham.org

JSTOR (58-3)
jstor.org

McCrone Research Institute is an internationally recognized not-for-profit institute specializing primarily in teaching applied microscopy. 59(4)
www.mcri.org

Mountain Justice Summer (58-3)
www.MountainJusticeSummer.org

Mycology Education Mart where all relevant mycology courses can be posted. www2.bio.ku.dk/mycology/courses/

Mycotax
www.mycotax.com

Leaf Home
www.oystermushrooms.net

Rare, Endangered or Under-recorded Fungi in Ukraine (56-2)
www.cybertruffle.org.uk/redlists/index.htm

Registry of Mushrooms in Art
http://namyco.org/art_registry/index.html

Robigalia provides information about field observations, published records and reference collection specimens of fungi and their associated organisms, with access to over 685,000 records (59-3).
www.cybertruffle.org.uk/robigalia

Tree canopy biodiversity project University of Central Missouri (58-4)
http://www.discoverlife.org/nh/tx/Fungi/canopy_biodiversity.html

Trichomyctete site includes monograph, interactive keys, a complete database, world literature, etc. (61-4)
www.nhm.ku.edu/~fungi

The TRTC Fungarium (58-1)
bbc.botany.utoronto.ca/ROM/TRTCfungarium/home.php

U.S. National Fungus Collections (BPI) Complete Mushroom Species Database (57-1)
www.ars.usda.gov/ba/psi/sbml

Valhalla provides information about past mycologists, with names, dates of birth and death and, in some cases, biographies and/or portraits (59-3).
www.cybertruffle.org.uk/valhalla

Website for the mycological journal *Mycena* (56-2)
www.mycena.org/index.htm

Wild Mushrooms From Tokyo
www.ne.jp/asahi/mushroom/tokyo/
REMEMBER: MSA Directory Update

Is your information up-to-date in the MSA directory? The Society is relying more and more on email to bring you the latest MSA news, awards announcements and other timely information, and our newsletter. To ensure that you receive Society blast emails and the Inoculum as soon as it comes out, and so that your colleagues can keep in touch, please check the accuracy of your email address and contact information in the online directory. This can be accessed via our web site at www.msafungi.org. If you need assistance with updating your membership information, or help with your membership log-in ID and password, please contact Allen Press at msa@allenpress.com.
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The Society is extremely grateful for the continuing support of its Sustaining Members. Please patronize them and, whenever possible, let their representatives know of our appreciation.

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Olympia, WA, 98507
(360)426-9292
info@fungi.com

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Attn: Richard P. Korf
PO Box 264
Ithaca, NY, 14851-0264
(607) 273-0508
info@mycotaxon.com

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Attn: P.L. Conant - President
PO Box 98
Ripon, WI, 54971
(920)748-5125

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Research Dept Library
198 Nolte Drive
Kittanning, PA, 16201
(724)543-3948
mwach@sylvaninc.com

Syngenta Seeds, Inc.
Attn: Rita Kuznia
Dept Head, Plant Pathology
317 330th Street
Stanton, MN, 55018-4308
(507) 663-7631
rita.kuznia@syngenta.com

Genencor Internation, Inc.
Attn: Michael Ward
925 Page Mill Rd
Palo Alto, CA, 94304
(650)846-5850
mward@genencor.com

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Davis, CA, 95618
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wty@novozymes.com

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Rockford, TN, 37853
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emirico@msn.com

You are encouraged to inform the Membership Committee (Andy Wilson, Chair, awilson@chicagobotanic.org) of firms or foundations that might be approached about Sustaining Membership in the MSA. Sustaining members have all the rights and privileges of individual members in the MSA and are listed as Sustaining Members in all issues of Mycologia and Inoculum.
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Inoculum
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Inoculum is published six times a year in odd-numbered months (January, March, May, July, September, November). Submit copy to the Editor by email as attachments, preferably in MS Word. If you submit pictures, these need to be sent as separate JPGs or GIFs, not embedded in the word document. The Editor reserves the right to edit copy submitted in accordance with the policies of Inoculum and the Council of the Mycological Society of America.

Julia Kerrigan, Editor
Department of Agricultural and Environmental Sciences
Clemson University
Clemson, SC 29634-0310
Phone: 864-656-2640
jkerrig@clemson.edu

MSA Officers
President, D. Jean Lodge
USDA-Forest Service
Northern Research Station
PO Box 1377
Luquillo, PR 00773
Phone: 787-889-7445
Fax: 787-889-7477
djlodge@caribe.net

President-Elect, Kerry O'Donnell
NCAUR ARS USDA
1815 N. University St.
Peoria, IL 61604
Phone: 309-624-6737
Fax: 309-624-6777
djlojdge@caribe.net

Vice President, Georgiana May
College of Biological Sciences
University of Minnesota
1477 California Ave.
Saint Paul, MN 55108
Phone: 612-624-6737
Fax: 612-624-6777
gmay@umn.edu

Executive Vice President, Lori Carris
Washington State University
Dept of Plant Pathology
PO Box 646430
Pullman, WA 99164
Phone: 509-359-3353
Fax: 509-359-9581
carris@wsu.edu

Treasurer, Sharon Cantrell
Science and Technology
Universidad del Turabo
P.O. Box 3030
Gurabo, Puerto Rico 00778
Phone: 787-743-7979
scantrell@suagm.edu

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