



**IMC12**  
MAASTRICHT

11-15 August 2024



International  
Mycological  
Association

**newsletter**

Issue 3 – April 2024

Hosted by the Netherlands Mycological Society and the Westerdijk Fungal Biodiversity Institute



WESTERDIJK  
FUNGAL BIO  
DIVERSITY  
INSTITUTE

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**IMC12**

12<sup>TH</sup> INTERNATIONAL  
MYCOLOGICAL  
CONGRESS

**IMA Fungus**  
THE GLOBAL MYCOLOGICAL JOURNAL

**MycoBank**  
[www.mycobank.org](http://www.mycobank.org)

## Countdown to IMC12

It gives us great pleasure to be able to invite you to join us at the International Mycological Congress (IMC12) at the MECC conference centre in Maastricht, the Netherlands, 11–15 August 2024!

After a hiatus of six years, it is again time for the mycological community to gather, connect, learn, and collaborate via a range of exciting projects and new initiatives. The IMC12 is a premier global scientific event devoted to the exchange, advancement, and dissemination of the latest discoveries in mycology. We will be hosted in Maastricht - a beautiful city that effortlessly weaves together the threads of history, culture, and modern life.

### What can mycologists expect to experience at the IMC 12 Congress?

Five days of science, including 48 scientific symposia, four pre-congress field trips, two pre-congress workshops, two post congress excursions, 16 general workshops, 14 keynotes and an opening plenary, several social events, including a night at the museum, unique beers, wine, food, and the inaugural meeting in the young IMA! With many networking opportunities, the IMC12 is the one mycological meeting you do not want to miss! *The Congress offers an exciting scientific [programme](#) spanning a wide range of mycological themes.*

### The abstract submission has been extended to 9 April 2024

The abstract submission for IMC12 has been extended until the 9th of April! We are giving you more time to have your scientific mark and take your place among the leading voices in the world of mycology - do not miss this incredible opportunity to showcase your research! [Submit abstract](#)

### Announcing the keynote speakers

We're excited to unveil our prestigious line-up of keynote speakers for IMC12, featuring a vibrant mix of mycology's top minds. These experts will present groundbreaking research and insights, deeply engaging with the congress's seven core themes. Immerse yourself in their unique perspectives and rich experiences, broadening your understanding of mycology's latest advancements. [See the speakers](#)

Invited symposia/chairs and speakers will receive instructions on how to register in the next few days.

### It's the perfect time to secure your spot at IMC12

This is your chance to interact with the field's leading figures and broaden your scientific horizons. Act quickly to take advantage of the early registration discount and ensure your participation in an event that will redefine our understanding of mycology. Register before 21 May and save up to €130,-! [Sign up](#)

### Need a VISA

Attendants who need a VISA for the Netherlands please request an invitation letter to be submitted with your visa application. Please also start the visa application process as soon as possible. [See \[imc12.org\]\(https://imc12.org\)](#)

*We look forward to welcoming you in Maastricht in person!*

*Wieland Meyer, President of the International Mycological Association*

*Pedro Crous, Chair of IMC12*



## IMC12 Conference Dinner – A Night in the Museum - Bonnefanten Museum in Connection with IPANEMA on the Maas

The IMC12 conference dinner will be a culinary and artistic feast being a Night at the Bonnefanten Museum with catering by the famous IPANEMA on the Maas restaurant.

You will be able to discover the iconic building of the Bonnefanten Museum by the world-famous Italian architect Aldo Rossi. The museum will open its doors exclusively for the IMC12 participants!

The evening will begin with a reception on the main staircase of the museum, enjoying a drink and a Dutch croquette. This will be followed by food on the terraces of the IPANEMA on the Maas restaurant, which is part of the Museum. The IPANEMA chefs will open their live cooking food stands spread over the terraces on the banks of the river Maas. The most delicious dishes will be prepared in front of your eyes and there will be plenty of choice for everyone from Dutch, Belgian and German cuisine, reflecting the location of Maastricht in the triangle of the Netherlands, Belgium, and Germany.

During the dinner, you will have the opportunity at any time to visit the museum. Offering you the perfect opportunity to wander around the huge exhibition rooms, to explore ancient, modern, and contemporary art from Maastricht and around the world. You can enjoy innovative works, paintings, sculptures, photographs, videos, and large-scale installations. Allow yourself to make your own personal discoveries. You can visit the museum, the major exhibition by British artist Sir Isaac Julien 'What Freedom means to me', and the Live Restoration Studio, showing how century old artworks are restored.

If you enjoy storytelling, you can participate in a 30-minute speed tour or join a 10-minute art story. Art is made to be seen; to be an eye-opener that challenges us to understand the world we live in a little better.

The museum will close its doors around 10 pm when a famous Dutch desert will be served. After dinner there will be the possibility to continue to enjoy the evening with drinks and dance to the music of a DJ in the iconic tower of the museum.

After a special evening with old and new friends and co-workers it is time around midnight to either venture on to the next venue in the nearby old town of Maastricht or take a rest contemplating the impressions of the evening.

We hope to welcome you all to this very special event.



## Join some of our exciting workshops (16 to choose from!), field trips or excursions (four pre-congress field trips, two pre-congress workshops, two post congress excursions)

For the young.....

### IMC12 Early Career Mycologist Symposium

For the first time, the International Mycological Congress is hosting a symposium organized by and for early-career mycologists with the collaboration of the European Mycological Association, Westerdijk Fungal Biodiversity Institute and British Mycological Society!

- Are you a student or a scientist who is up to 10 years after your last degree (BSc, MSc, PhD)?
- Do you want to share your research on fungi with your peers and future collaborators?
- Then join us at the IMC12 Early Career Mycologists Symposium in the Netherlands!

Check the [congress website](#) for the details.

For the others.....

### Pre-Congress workshop: Community ecology of fungi and bacteria

The ongoing revolution in microbial ecology due to DNA-based identification of Fungi, Oomycota, and Bacteria is as profound as the 1830s revolution in laboratory microbiology caused by microscopy. In 2024, using DNA to identify microbes has made a microscope for the environment. We are in the early days of this revolution, and this workshop aims to help direct it in terms of interactions between mycobiomes and microbiomes, including temporal dynamics and stability, melding DNA-based mycobiome composition with RNA-based function, interactions of Fungi with Bacteria and Plants, interactions of Oomycota with Fish, and the effect of Fungi on decomposition of plastics. Mycologists studying community ecology are following theory developed by plant ecologists and approaches developed by bacteriologists. Fungal ecologists have the goal of assembling fungal genomes from meta-genomic sequence and fungal transcriptomes from meta-transcriptomic sequence to infer function of from the level of individuals to communities. Advances required to achieve this goal include technical advances in obtaining fungal DNA and RNA sequence in the presence of DNA from bacteria and plants, in obtaining proteomes and metabolomes, and in making computational advances in analyzing sequence, including Artificial Intelligence. Given the early days of the revolution in microbial community ecology, many questions are open. For example: Will microbial community ecology require new theory? When will the promise of meta-genomic assembly of fungal genomes in natural settings be achieved? How will microbial community ecology be used to alter plant productivity in terms of food production and carbon sequestration? These questions, and others, will be addressed in the presentations of ten ecologists working with Fungi, Oomycota, and Bacteria from Asia, North America, and throughout Europe.



## PRE-CONGRESS FIELD TRIPS

### Pre-congress field trip 1: A visit to the Mount Saint Peter nature area near Maastricht

We will pay a visit to the “Mount” Saint Peter area that is located south of Maastricht. Although considered a “mountain” by the Dutch, it is actually a plateau between the river Geer to the west and the Meuse to the east. It stretches from the south of Maastricht up into Belgium. The plateau consists of limestone that has been quarried up until 2018. Therefore a

large “cave” system is present underground. Many old buildings in and around Maastricht are built by this limestone. During the excursion, an open quarry will be visited that is currently transformed into a nature area. The plateau is now a Natura 2000 protected area and is managed by the Dutch Society for the Preservation of Nature Monuments “Natuurmonumenten”. The calcareous soil and the specific microclimate make this plateau (for Dutch standards) exceptional in its botanical variety.

The distance of the hike will be between 8 and 10 kilometers. You will visit beautiful scenery and you'll have fantastic views over the surrounding areas. If possible we will try to identify any mushrooms that we encounter along the route. This route goes up and down and is therefore not suitable for people with mobility problems. This excursion is organized by the Dutch Mycological Society.

### Pre-congress field trip 2: A visit to the Savelsbos forest and its prehistoric flint mines

We will pay a visit the “Savelsbos”, a forest that is situated on the hills that are carved out by the Meuse River in the south of Maastricht. The excursion will start at the small village of Rijkholt (Gronsveld) which is located approximately 10 kilometers south of Maastricht. The forest is a Nature 2000 protected nature area and is managed by the Dutch government organization of forestry called “Staatsbosbeheer”.

The “Savelsbos” is a deciduous forest of the oak-hornbeam type forest. Due to the large difference in altitude, substrate and microclimate, it consists of a wide variety of forest types. The relatively steep slopes of the plateau are intersected by depressions that have been carved out by the rain and melt water that flows from the plateaus. In Dutch these depressions are called “grubben”. One of these depressions called: “Schone grub” is also a forest reserve.

In prehistoric times, flint was mined in this area. This flint was used for producing several tools, for example, axes and hoes. During this excursion, we will also visit these prehistoric flint mines and you will get an insight into the work of the prehistoric flint miners.

The distance of the hike through the forest will be approximately between 8 and 10 kilometers. If possible we will try to identify any mushrooms that we encounter along the route. This route goes up and down and is therefore not suitable for people with mobility problems.

This excursion is organized by the Dutch Mycological Society.

#### For all 4 field trips:

- They take place on Sunday August 11th
- Maximum number of participants: 40 per field trip
- At least 2 guides will be available per field trip
- Transport by bus will be arranged – precise starting time and location will be communicated later
- Participants will be back on time in Maastricht to attend the opening ceremony
- Participants receive a lunch box in the field
- Cost per person is 75 euros

### **Pre-congress field trip 3: A mycological excursion to the forest near Vijlen combined with a short visit to the Three-Country point in Vaals**

We will visit the "Vijlenerbossen", near Vijlen (approximately 25 kilometers from Maastricht). It is a dense forest area that stretches from the Netherlands into Germany. The area that we will visit is located close to the border of Belgium. The forest is located on the plateau of Vijlen. This is actually the highest plateau in the Netherlands. The highest point of this plateau is called the "Vaals mountain" and reaches (for Dutch standards...) an "impressive" 323 meters. The forest is a Nature 2000 protected nature area and is managed by the Dutch government organization of forestry called "Staatsbosbeheer".

At this plateau, the soil is relatively acidic and nutrient-poor. The forest consists mostly of deciduous trees, but coniferous trees are also present. The humidity of several parts of this forest is usually relatively high, therefore we assume that it could be an interesting location to search for (mycorrhizal) mushrooms in summer. An example of a mycorrhizal mushroom that is found in this area is the Amethyst chanterelle (*Cantharellus amethysteus*). In the Netherlands, this species is almost exclusively found in this forest area. There is also a substantial amount of dead wood present and therefore we can search for wood-inhabiting fungi too. After visiting the forest we will pay a short visit to the Three-Country Point in Vaals.

This route goes over unpaved paths in relatively flat terrain, and is therefore not suitable for people with mobility problems.. We expect that the total route will be approximately 5 kilometers by foot (depending on the amount of mushrooms that are found).

This excursion is organized by the Dutch Mycological Society.

### **Pre-congress field trip 4: Field trip to the Jongenbos nature reserve in Belgium**

In Belgium, in the province of Limburg, in the open landscape of Haspengouw, lies a green oasis, the Jongenbos forest. With a core of over one hundred hectares and still growing, it is one of the few places in this agricultural landscape where nature is still allowed to run its course. The forest lies on the transition zone between the sandy Kempen and the loamy Haspengouw, and is exceptionally rich in fungi, plants and animals.

The area is interesting for saprotrophic fungi on the one hand, due to the large amount of dead wood that is allowed to remain. There is a lot of dead beech, oak, and poplar, especially *Populus canescens*. In addition, it is one of our hot spots for ectomycorrhizal fungi. It has one of the richest fungus of *Russula* in Flanders, with particularly rare species such as *Russula sublevispora*, *Russula rubrocarminea* (all color forms such as yellow, red, green, purple, and transitional colors), *Russula acetolens*, and *Russula roseicolor* that can be seen regularly in some years. In addition to the trees mentioned earlier, there is a lot of hornbeam, hazel, willow, and birch. There are also two plots of Scots pine.

This excursion is organized by the Flemish Mycological Society.



## MYCOLOGICAL NEWS

### One Health and the Challenge of Antifungal Resistance

Taking place in the elegant city of Bath, UK, this 1.5-day conference - organised jointly by the British Mycological Society and the British Society for Plant Pathology - highlights current research to address the increasing concern of antifungal resistance in plants, crops and agriculture, human and animal health, and urban environments. Speakers from a range of research disciplines will offer insight into new methods for controlling fungal pathogens, taking a One Health approach to tackling antifungal resistance. Topics include impacts and surveillance of antifungal resistance; mechanisms and drivers of antifungal resistance; new approaches to disease control and resistance mitigation.

Bath is a city full of traditional heritage, contemporary culture and green spaces. Famous as the Roman spa town, human activity around the hot-springs dates back to 8000 BCE. A conference dinner will be held at the Roman Baths on the evening of 4 April 2024, starting with a reception by the Great Bath followed by dinner in the Terrace.

Conference details and registration: <https://www.britmycolsoc.org.uk/>





## UFS hosted the 53rd Congress of the SASPP

The University of the Free State hosted the 53<sup>rd</sup> Congress of the Southern African Society for Plant Pathology (SASPP) at the Golden Gate National Park, Eastern Free State of South Africa from 22–25 January 2024. With eight international keynotes, three invited speakers, 84 delegates, and 78 students a total of 71 talks and 75 posters were presented covering a wide range of plant pathology subjects.



**Keynotes:** The successful event was attended by eight international plant health professionals namely Prof Emerson del Ponte (Federal University of Viçosa, Viçosa, Brazil) who presented the JE Vanderplank Memorial Address “Managing plant health emergencies through epidemiology: Brazilian cases with global relevance”, Prof Diane Saunders (John Innes Centre, Norwich, UK) who presented the Ethyl M. Doidge Memorial Address “How to outsmart a cereal killer”, Prof Lindsey du Toit (Washington State University, Washington), Prof Clive Bock (USDA-ARS-SEFTNRL, Byron, USA), Dr Juliana Freitas-Astúa (Brazilian Agricultural Research Corporation, Embrapa Cassava and Fruits, Cruz das Almas, Brazil), Prof André Fleissner (Institute of Genetics, Braunschweig, Germany), Dr Theo Smits (Environmental Genomics and Systems Biology, Zürich University of Applied Sciences, Wädenswil, Switzerland), and Prof Dan Bebber (Department of Biosciences, University of Exeter, UK).

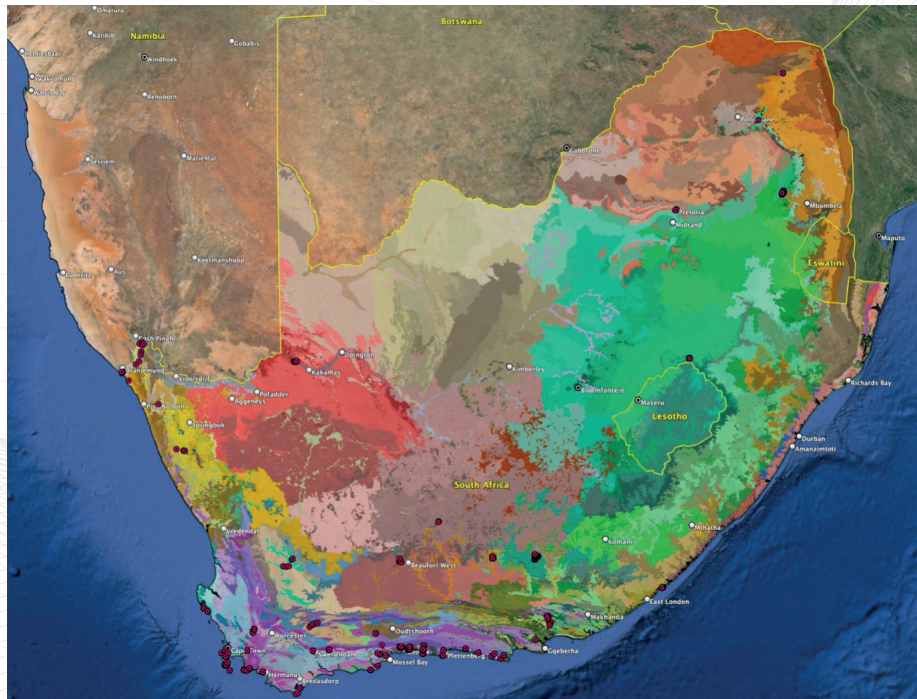


From left, Prof Emerson del Ponte, Prof André Fleissner, Dr Juliana Freitas-Astúa, Prof Dan Bebber, Prof Diane Saunders, Prof Clive Bock, Prof Lindsey du Toit, Dr Theo Smits & Dr Cheryl Lennox



## SASSY kicks off!

A new project led by Prof. Cobus Visagie (FABI, University of Pretoria, South Africa) aims to investigate the diverse fungal communities in South African soils. The South African Soil Survey (SASSY), in collaboration with national and provincial parks, is collecting soils that best represent the country's nine biomes and 36 bioregions. Three field trips, during which 230 samples from 49 parks were collected, have already been completed. The fungal communities are being characterised using both culture-dependent and independent methods. The resulting isolations revealed incredibly diverse communities. The first 500 *Penicillium* strains belong to 83 species, 30 of which may be new. This is an exciting start to a long-term project that will be the most comprehensive fungal survey conducted in one of the most diverse countries in the world!



## X Brazilian Mycology Congress

(19–23 February 2024)

The triennial meeting of the Brazilian Mycological Society (BMC) was held at the campus of the Universidade Federal de Minas Gerais in Belo Horizonte, after a five-year hiatus because of the Covid pandemic.

It drew mycologists and related professionals and students from all over Brazil, as well as from abroad. More than 1000 people attended – a record for BMC meetings – with participants coming from 24 of the 26 Brazilian states and from 14 other countries. One hundred and ninety-five talks were given and over 700 posters were presented, with 13 book signings by authors, which proved to be a popular innovation. Excursions to partner institutions – Natural Reserve of the Santuário do Caraça and the sculpture gardens at the Inhotim Institute – also proved to be highly popular with planned activities and talks.

A tribute to one of the founding members of the BMC, the late Prof. Bodo Wanke, opened the Congress and Dr. José Luis Bezerra was honoured at the closing ceremony; during which his contributions to, and influence on, the Brazilian mycological community were highlighted. His lifetime achievement in advancing mycology, in general, and fungal diseases of cacao, in particular, was commemorated in the form of a unique sculpture of the infamous witches' broom fungus (*Moniliophthora perniciosa*).

### Interesting articles

Pfütze et al. (2024): *Angew. Chem. Int. Ed.* **2024**: e202318505. The phylum Basidiomycota comprises ca. 40,000 species and represents the second largest division within the Eumycota after the Ascomycota. Taxa belonging to this phylum are well known as creative producers of bioactive natural products. In this investigation, we explored the diversity of melleolide-type meroterpenoids produced by *Armillaria ostoyae*, one of the largest and oldest organisms on Earth, using extracts from liquid and solid fermentation media.

Herein, we report the isolation and identification of seventeen new melleolide derivatives as well as 21 previously known congeners. In parallel, the antimicrobial and cytotoxic activities of the isolated metabolites were assessed under consistent laboratory conditions, enabling structure-activity relationships (SAR) of these compounds to be determined using chemoinformatic approaches.

<https://onlinelibrary.wiley.com/>





Jung *et al.* (2024): *Stud. Mycol.* **107**: 251–388. During 25 surveys of global *Phytophthora* diversity, conducted between 1998 and 2020, 43 new species were detected in natural ecosystems and, occasionally, in nurseries and outplantings in Europe, Southeast and East Asia and the Americas. The finding of 43 previously unknown species from a single *Phytophthora* clade highlight a critical lack of information on the scale of the unknown pathogen threats to forests and natural ecosystems, underlining the risk of basing plant biosecurity protocols mainly on lists of named organisms.

<https://www.ingentaconnect.com/>

De Jong *et al.* (2023): *Med. Mycol.* **61**: myad009. Invasive fungal infections caused by non-*albicans* *Candida* species are increasingly reported. Recent advances in diagnostic and molecular tools enabled better identification and detection of emerging pathogenic yeasts. Here, we describe a new clinically relevant yeast isolated from geographically distinct regions, representing the proposed novel species *C. khabhai*, a member of the *C. haemulonii* species complex. Moreover, several members of the *C. haemulonii* species

complex were observed to be invalidly described, including the clinically relevant species *C. auris* and *C. vulturna*. Hence, the opportunity was taken to correct this here, formally validating the names of *C. auris*, *C. chanthaburiensis*, *C. konsanensis*, *C. metrosideri*, *C. ohialehuae*, and *C. vulturna*.

<https://academic.oup.com/>



José Luis Bezerra (honoured at the congress), Pedro Crous and Robert Barreto.

Li *et al.* (2023): *Microbiome* **11**: 272. This study attempted to isolate previously uncultured and rare fungi from mangrove sediments using newly developed fungal enrichment culture method (FECM) and fungal isolation chips (FiChips). Comparison of fungal community composition at different enrichment stages showed that FECM had great influence on fungal community composition, with rare taxa increased significantly, thus improving the isolation efficiency of previously uncultured fungi. Similarly, in

situ cultivation using FiChips has a significant advantage in detecting and culturing rare fungi, as compared to the conventional dilution plate method (DPM). In addition, based on morphological comparisons and phylogenetic analyses, we described and proposed 38 new ascomycetous taxa, including three new families, eight new genera, 25 new species, and two new combinations.

<https://microbiomejournal.biomedcentral.com/articles/10.1186/s40168-023-01708-6>

Visagie et al. (2024): *Stud. Mycol.* **107**: 1–66. The order *Eurotiales* is diverse and includes species that impact our daily lives in many ways. In the past, its taxonomy was difficult due to morphological similarities, which made accurate identification of species difficult. This situation improved and stabilised with recent taxonomic and nomenclatural revisions that modernised *Aspergillus*, *Penicillium* and *Talaromyces*. The focus of this study was to review the 160 species described between the last list of accepted species published in 2020 until 31 December 2022. To review these species, single-gene phylogenies were constructed and GCPSR (Genealogical Concordance Phylogenetic Species Recognition) was applied. Multi-gene phylogenetic analyses were performed to further determine the relationships of the newly introduced species. As a result, we accepted 133 species (37 *Aspergillus*, two *Paecilomyces*, 59 *Penicillium*, two *Rasamsonia*, 32 *Talaromyces* and one *Xerochrysium*), synonymised 22, classified four as doubtful and created a new combination for *Paraxerochrysium coryli*, which is classified in *Xerochrysium*. This brings the number of accepted species to 453 for *Aspergillus*, 12 for *Paecilomyces*, 535 for *Penicillium*, 14 for *Rasamsonia*, 203 for *Talaromyces* and four for *Xerochrysium*.

<https://www.ingentaconnect.com/>



## Expedition into a hitherto untapped Kenyan rainforest to search for novel fungal producers of anti-infective agents

The Kenyan Arabuko Sokoke National Park is one of the few undisturbed primary forests at the coast of the Indian Ocean in Eastern Africa. Even though the animals and plants of this area have already been studied intensively, virtually nothing is known about the Mycobiota of this area. The partners of the EU-H2020-RISE project Mycobiomics have recently been staying there for collection trips for the second time and once again found cultures and plenty of interesting species that are now being subjected to chemical analyses for the occurrence of anti-infective metabolites as well as for their taxonomy.



<https://www.helmholtz-hzi.de>

<https://mycobiomics.eu/>





## AWARDS

**Botanic Gardens of Sydney's Chief Scientist, Professor Brett Summerell, has received a Member of the Order of Australia (AM) for his significant service to the environment through plant pathology and mycology.**

Professor Summerell has been performing vital scientific research for 35 years at the Gardens, describing over 120 new species of fungi and publishing over 150 journal articles, books and book chapters.

For the past two decades he has also led over 100 scientists, students, volunteers and support staff while helping to establish vital scientific facilities such as PlantClinic, the Australian PlantBank and the National Herbarium of New South Wales.

Professor Summerell was grateful to see the important work his team does to protect and promote plants acknowledged on the national stage.

"This honour is not just a recognition of my work but of all the people I work with to protect Australia's unique plant life from extinction," Professor Summerell said.

"I hope this recognition will inspire more people to discover the power of plants and the inherent value they provide to our everyday lives.

Professor Summerell is considered one of the world's leading experts on the deadly fungal genus *Fusarium*, which can wreak havoc on our food crops and native plants.

