



ORGANIZATION OF NEMATOLOGISTS OF TROPICAL AMERICA
ONTA NEWSLETTER

<http://www.ontaweb.org/>

June 2024

54th ONTA ANNUAL MEETING & 39th CONGRESSO BRASILEIRO DE NEMATOLOGIA
FOZ DO IGUAÇU, BRAZIL, 1st TO 5th SEPTEMBER, 2024



Fig. 1. Foz do Iguacu, Brazil. (Images: C. Dias A.)

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Fig. 2. The Organization of Nematologists of Tropical America (ONTA) in collaboration with the Brazilian Society of Nematology (BSN) will meet in Iguacu, Brazil, from the 1st to 5th September, 2024.

54th ANNUAL MEETING ONTA
FOZ DO IGUAÇU, BRAZIL, 2024

WE ARE PREPARING TO WELCOME YOU IN FOZ DO IGUAÇU - BRAZIL



Fig. 3. A, B: Grand Carimã Resort. Brazil will host the 54th ONTA Annual Meeting from 1st-5th September 2024 with the theme “Nematology beyond the Mercosur border”. (Images courtesy of C. Dias A.)

Dear friends of ONTA,



Fig. 3C: Claudia R. Dias Arieira

The Organizing Committee of the 39th Brazilian Nematology Congress and LIV ONTA Annual Meeting have worked intensively to prepare a memorable event for nematologists and participants.

As many already know, the city chosen for this meeting is Foz do Iguaçu, Paraná, Brazil, between September 1st and 5th, 2024. The city is located on the border between Brazil, Argentina and Paraguay, and is known for tourist attractions sought after by people from all over the world, such as the Iguaçu Falls, the Bird Park, Itaipu Binacional and Landmark of the Three Borders (<https://www.viajeparana.com/Foz-do-Iguacu>). Foz do Iguaçu also has numerous themed restaurants and places to shop for handicrafts or imported goods.

The event will be held at the Grand Carimã Resort (Fig. 3A, B), which offers all the infrastructure for a peaceful and pleasant stay (<https://www.viajeparana.com/Foz-do-Iguacu>). Many things are already fully defined,

such as the choice of event rooms and spaces for poster presentations and oral sessions, and in addition, almost all sponsorship quotas have been sold.

Topics relevant to the scenario of nematology in the Americas and global nematology will be addressed in different conferences. The event program is practically complete (<https://39cbn.com.br/programacao>), and the speakers and moderators have already been invited and confirmed.

The date for sending abstracts has been extended to 17 June 2024; however, it is important that participants register two days in advance of this deadline (until 15 June 2024), depending on the time needed for the system to process the information and release the submission. Stay tuned and don't leave it until the last minute.

All information about the event can be accessed on the website [<https://39cbn.com.br>]. If you have any questions, participants can contact the organization via email [contato@39cbn.com.br]. Furthermore, we invite you all to follow our social networks on:

Instagram

[<https://www.instagram.com/39cbn/?igsh=MWtIN2FwNzRh2d4ag%3D%3D>]

Facebook

[<https://www.facebook.com/profile.php?id=61555488016879&mibextid=LQQJ4d>]

Please know that we, members of the Brazilian Society of Nematology and the Congress

Organizing Committee, are very happy and honored to welcome you.

See you soon,

Dr Claudia R. Dias-Arieira

President of the Organizing Committee

IMPORTANT GENERAL INFORMATION SBN/ONTA JOINT MEETING, BRAZIL

Important dates:

- **Submission of Abstract:** <https://39cbn.com.br/hospedagem>
- **June 17, 2024:** Deadline for abstract submissions - two abstracts (maximum) per delegate regardless if it is poster, short oral presentation or a combination of both.
- **Registration with early-bird fees (cheaper):** <https://39cbn.com.br/inscricao>
- **July 12, 2024:** Last day to register for the meeting with the early-bird fees.
- **Hotel Accommodation:** <https://39cbn.com.br/hospedagem>

Hotel booking: Where you see the flags of the countries choose language of choice (Portuguese, English, or Spanish). At the meeting website, click on Information, in the dropdown menu you have the list of **four** Hotels provided for our stay. The **Grand Carimã Resort** is where the meeting will be held, whereas the other ones are located nearby. Please notice that you are responsible for making your own reservation at the hotel of your choice to stay during the meeting. However, if you want to stay at the Grand Carimã Resort, the meeting venue, and get a discount, please contact the hotel directly.

At this time there is no mention of what type of discount will be granted. However, if you call (+55 (45)3521-3000) or email (reservas@grandcarima.com.br) the Hotel and state that you will be attending the 39th Congress Brazilian Nematology and LIV ONTA meeting, provide the period of your stay as well as the room type (single, double, triple) you will be informed about room availability, costs with the discount and how to make the payment. The Carimã Resort will be glad to assist you throughout this process. It might provide you with a better deal than going online for obtaining a reservation.

ENTRY VISAS TO BRAZIL

<https://www.gov.br/mre/pt-br/assuntos/portal-consular/QGRVsimplesing16FEB24.pdf>

The above link is direct to the PDF to understand if you need a visa. United States of America passport holders*** have a visa exemption and do not require visa for entry. Here is the link to the Government website that includes all countries.

<https://www.gov.br/mre/pt-br/assuntos/portal-consular/vistos/informacoes-sobre-vistos-para-estrangeiros-viajarem-ao-brasil#vistovisita>

Starting 10 April, 2025, yes that is 2025, Brazil will require eVisa if you are passport holders from **Australia, Canada, or USA click link. <https://brazil.vfsevisa.com/> but only until after 2025 😊, so if you go online, you may encounter this information, so read carefully.

From the ONTA President



Fig. 4. Dr Ernesto San Blas.

Dear ONTA members,

We are excited to announce that the much-anticipated ONTA Annual Meeting is fast approaching, taking place in Foz do Iguaçu in collaboration with the Sociedade Brasileira de Nematologia. This event represents a unique opportunity to gather, share knowledge and experiences, and explore new avenues of collaboration in the fascinating field of nematology.

The Congress will provide a space for the exchange of ideas and discussion of the

latest advances in the field, as well as for establishing meaningful connections with colleagues from throughout the region. It will be an excellent opportunity to strengthen ties with other researchers, institutions and organizations, and to promote interdisciplinary collaboration on future projects.

On the other hand, we are pleased to announce that Karla Medina has been elected as the new Secretary of ONTA and has already taken office. Karla brings a wealth of experience and enthusiasm to this role, and we are confident that she will play a key role in driving the growth and development of our organization. We would also like to announce that in a few weeks, we will be holding the election for the next president of ONTA, so stay tuned to participate in this important leadership selection process for our organization.

Without further ado, I reiterate my invitation to everyone to participate in the upcoming congress. See you soon in Foz do Iguaçu!

Sincerely,

Ernesto San-Blas
President

From the ONTA Vice-President

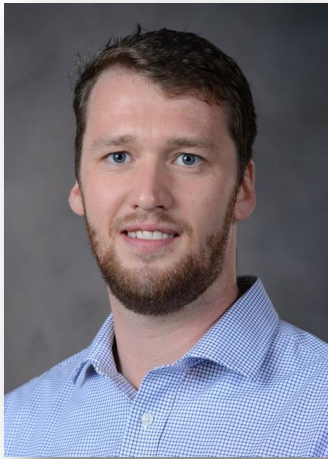


Fig. 5. Dr Tristan T. Watson.

Dear Members and Colleagues,

Greetings from the Organization of Nematologists of Tropical America (ONTA).

We hope this newsletter finds you well. We are thrilled to announce that preparations are well underway for our upcoming annual meeting. The meeting will be held jointly with the Brazilian Society of Nematologists (Sociedade Brasileira de Nematologia) and promises to provide an unparalleled platform for scientific exchange and collaboration among our two societies. This year's meeting will feature captivating panel discussions with world-renowned nematologists, oral and poster sessions, industry exhibits, and networking opportunities for nematologists from all career stages. Please join us in Foz do Iguaçu, Brazil from 1st to 5th September, 2024. We look forward to welcoming you in Brazil at the ONTA 54th Annual Meeting!

Warm regards,

Tristan Watson,
ONTA Vice President
(TWatson@agcenter.lsu.edu)



Fig. 6. Rosa H. Manzanilla-López.*

Dear ONTA members:

It is a pleasure to be with you again to share the news from ONTA officers, colleagues and ONTA friends. We would like to start this Newsletter's issue by acknowledging the ongoing work of the **Local Organizers Committee**, integrated by officers of both **ONTA and BSN** (Brazilian Society of Nematology), to organize the 54th Annual Meeting in Foz do Iguacu, Paraná, Brazil (1-5 September 2024).

We would like to thank Dr Miguel Talavera-Rubia for the highlights of the ESN symposium (Cordoba, Spain) and Dr Raquel Herrera-Campos for the highlights of the Congress to celebrate the 100th anniversary of the discovery of the entomopathogenic

nematode *Steinernema kraussei* (Logroño, Spain).

In this issue, we share news about different nematology activities carried out by ONTA members. We are introducing two new sections in the Newsletter, which we hope will be of interest to you. The first is about ONTA members ongoing research, and the second provides information on new graduate programs that are relevant for those willing to follow a career in nematology. We thank Dr Hugo Mejía-Madrid for sharing his research on the soil nemato-fauna found in two university campuses belonging to the National Autonomous University of Mexico, and the contribution of Dr Joaquín Abolafia, Director of the **Master Degree in Analysis, Conservation and Restoration of Habitats** from the University of Jaen (Spain).

As we celebrate the appointments of Dr Karla Medina as the new ONTA Secretary and Dr Deb Neher as Emerita Professor we also remember Dr Diana Wall who passed away on 25 March 2024. We thank Dr Deb Neher for preparing a remembrance of one of the great pioneers of nematode ecology.

Finally, there are important scientific meetings to attend this year as you can find in the ONTA's Agenda section. We hope to meet you at the **ONTA's 54th Annual Meeting**.

Rosa H. Manzanilla-López
Newsletter Editor

(*Image: R. H. Manzanilla-López.)

Miguel Talavera-Rubia

The week of 15 to 19 April, 2024, the 35th Symposium of the European Society of Nematologists (ESN) was held in Cordoba, Spain. More than 300 nematologists from Europe and the rest of the world participated in the event that was organized by the Andalusian Institute for Agricultural and Fisheries Research and Training (Instituto Andaluz de Investigación Agraria y Pesquera, IFAPA) and the Higher Council for Scientific Research (CSIC). More than 300 nematologists from Europe and the rest of the world participated in 8 plenary conferences, 177 oral communications and 123 posters and discussed the most recent advances in etiology, epidemiology and control of diseases caused by plant-parasitic nematodes, host-parasite relationships, systematics and taxonomy, the use of entomopathogenic nematodes in the biological control of pests, biodiversity and ecology of soil nematodes and their use as bioindicators of the state of “soil health”.

The Plenary session 1 (Fig. 7A) opened with the talk of Dr Soledad Verdejo-Lucas (Fig. 7B) ‘Vegetable production in solar plastic-houses infested with root-knot nematodes’. The talk dealt with one of the most important agro-industries of Spain and the impact that *Meloidogyne* spp. have on tomato production and other horticultural crops grown in glasshouses.



Fig. 7. Opening ceremony. A: Delegates, B: From left to right Dr Soledad Verdejo-Lucas, Catherine Lilley (ESN President) and Francisco Rabasco, Head of European Projects of IFAPA (Instituto Andaluz de Investigación Agraria y Pesquera). (Images courtesy of Miguel Talavera-Rubia).



Fig. 8. From left to right: Laura Cortada, Danny Coyne, Ernesto San Blas, Solveig Haukeland.

The Plenary Session 5 (Wednesday 17 April) was very interesting and entertaining. The presentation “**Going bananas? A paper trail to a nematode’s nightmare**” was given by Danny Coyne, Laura Cortada and Solveig Haukeland who shared with the audience the story behind their successful experience with local farmers to use banana paper, to protect potato tubers against cyst nematode infestation. As an introduction to each speaker Ernesto San Blas played a drum to call the attention of the attendants to the talk (Fig. 8).

ESN SYMPOSIUM HIGHLIGHTS (Cont.)

The symposium was attended by some ONTA members including the PhD student Lester Núñez from Costa Rica (Fig. 9A). He kindly shared with the ONTA Newsletter readers his impressions of the meeting as follows: “The 35th Symposium of the European Society was my first ESN meeting. This would not have been possible without the support of the department of Botany and Plant Pathology at Oregon State University (USA) and my advisor, Dr Inga Zasada, USDA-ARS, Corvallis, Oregon. The 2024 ESN symposium allowed me to obtain excellent feedback from nematologists like Dr Eves-van den Akker on the genomic data I have as part of my PhD thesis. This meeting also allowed me to meet with nematologists with whom I have been in contact through emails, such as Dr Palomares-Rius (Fig. 9B). Last but not least, it was a pleasure to meet with other ONTA members like Dr Rosa Manzanilla”.



Fig. 9. A: Lester Núñez presenting his poster; B: From right to left, Juan Emilio Palomares-Rius, Rosa Manzanilla-López, and Lester Núñez Rodríguez.

The banquet was an opportunity to also meet young nematologists from Japan (Fig. 10A) or with friends like Hany Monir (Fig. 10B), from Egypt, who attended the last ONTA meeting in Cairo.



Fig. 10. Gala Dinner. A: Japanese attendees at the ESN Gala dinner; B: from left to right Hany Monir (Syngenta, Egypt) and Federico López-Moya (University of Alicante, Spain).

ESN SYMPOSIUM HIGHLIGHTS (Cont.)



Fig. 11. Attendees 35th Symposium of the European Society of Nematologists in Cordoba, Spain.



Fig. 12. View of Cordoba old town. (Image courtesy R. H. Manzanilla-López).

HIGHLIGHTS OF THE 100TH ANNIVERSARY OF ENTOMOPATHOGENIC
NEMATODES INTERNATIONAL CONGRESS

From 10 to 12 April, 2024, at the Riojaforum in Logroño (La Rioja, Spain), a special congress was organized to celebrate the 100 years of the discovery of the entomopathogenic nematode *Steinernema kraussei* (Fig. 13).



Commemoration of the centenary of the discovery of entomopathogenic nematodes, in Logroño (La Rioja, Spain).

Dr Raquel Campos-Herrera

The event was organized by the Institute of Vine and Wine Sciences (ICVV), with the CSIC, the University of La Rioja, the Government of La Rioja, and the University of Barcelona, and more than 90 researchers, technicians, students and businessmen from 24 countries participated (Fig. 14).



Fig. 14. Participants at the entrance to the Riojaforum (Logroño, La Rioja, Spain).

The objective was to highlight the progress made in past decades, identify future challenges and promote international collaboration in the study of entomopathogenic nematodes and their symbiont bacteria, both in basic and applied research, in collaboration with companies in the sector (Fig. 15).

HIGHLIGHTS OF THE 100TH EPN ANNIVERSARY INTERNATIONAL CONGRESS (Cont.)



Fig. 15. Opening ceremony of the congress with Dr Ralf Ehlers (consultant, Germany), Dr Eduardo Fonseca (Vice Dean of the University of La Rioja) and Dr Raquel Campos-Herrera (ICVV-CSIC).

The congress had an international scientific committee of 15 members. During the event, 32 oral presentations were given in 10 specialized symposia, 31 posters of outstanding research were exhibited, and four guest lectures were offered by leading experts in the field (Fig. 16): Ramon Georgis (EE.UU.), Noël Boemare (France), Raymond Akhurst (Australia) and Randy Gaugler (EE.UU.).



Fig. 16. Congress “Legend” guests: Dr Raymond Akhurst (CSIRO, Canberra, Australia) on the left and Dr Noël Boemare (University of Montpellier, INRAE, Montpellier, France) on the right. In the middle, Dr Raquel Campos-Herrera (ICVV-CSIC, Logroño, La Rioja, Spain), coordinator of the congress.



Fig. 17. Dr Mayra Rodriguez (CENSA, Cuba) presentation within the symposium 8 “Application technology”.

In addition, on 9th April, a knowledge dissemination day aimed at the wine sector was held under the title “**Nematodes in vineyards: problems, challenges and bioindicators of soil health**”, being a pioneer in La Rioja in this thematic area. Six internationally renowned researchers participated in this event, each specialized in the proposed topics related to the health and sustainability of vineyards (Figs 17-18).



Fig. 18. Presentations at the Specialization Conference on Nematodes at the University of La Rioja. Dr Patricia Stock (California State University Chico, USA) top left; Dr Rubén Blanco Pérez (Misión Biológica de Galicia, CSIC, Pontevedra, Spain) above right; Dr Ernesto San Blas (Universidad de O'Higgins, ICA3, Chile) below, left; Dr Patricia Navarro (INIA, Chile), bottom right.

These events have been an excellent opportunity to highlight the growing importance of this field and disseminate the latest advances in research on nematodes, especially entomopathogens, which play a crucial role in sustainable pest control in vineyards and other agroecosystems.

Credits: Figure images (13-18) courtesy of Dr Raquel Campos-Herrera.

NEW ONTA OFFICER
CONGRATULATIONS



Fig. 19. Dr Karla Medina.

Congratulations to Dr Karla Medina on her appointment as **new ONTA Secretary**.

Dr Karla Medina (Fig. 19) is Director of Field Development US at Certis Biologicals. With a bachelor's degree in Agronomy from Zamorano University at Honduras, she first arrived to the USA, as an intern working on how transgenic crops affect soil biodiversity at the University of Illinois at Urbana-Champaign, and she followed with another internship at CABI Swiss Centre, a leading applied scientific research center on biological

control. Karla continued on to pursue graduate studies with an MS degree from University of Idaho working with Dr Nilsa Bosque-Perez. She earned a doctoral degree from The Ohio State University working with Dr Cañas, followed by post-doctoral work at University of California-Riverside with Dr Greg Walker. From their work a new plant defense mechanism against aphids was elucidated, they showed how virus infection changes behavioral responses of aphids, and led to a better understanding of plant resistance to whiteflies and mechanisms of defense against stylet-borne phloem sap insects. Plant-parasitic nematodes share a similar and intimate feeding habit to those of her phloem sap insect models. Her industry career started with DuPont working on Insecticide Discovery of New products, and biological companies Marrone BioInnovation (now called ProFarm Group) and currently with Certis Biologicals in the USA. She moved to Florida in 2016, when she starts work on biological nematicides, in collaboration with university researchers and private sector companies, in developing, and understanding how they work. She has been an active member and participant of ONTA since 2018, and has presented on topic of biological nematicides, and supports the organization goals and mission.

CONGRATULATIONS



Fig. 20. Dr Deb Neher receiving her University of Vermont Emerita plaque from the university provost (left) and president (right).

Congratulations to **Dr Deb Neher** (Figs 20-21) on her appointment as **Emerita Professor in Plant and Soil Science at the University of Vermont (USA)**. Dr Neher has been ONTA President and she is in charge of the ONTA LISTSERV, which keeps all ONTA members informed through email notifications. This is a great support that Dr Neher gives to our Organization among other services to ONTA. She has also inspired many of us with her dedication and work on soil health and nematode ecology.

We reproduce below the UVM plaque citation text of Dr. Neher:

Deborah A. Neher
Professor Plant and Soil Science Emerita
College of Agriculture and Life Sciences

“Deborah Neher, you are a distinguished professor in Plant and Soil Science (PSS) at the University of Vermont, renowned in the fields of soil ecology and agroecology. You received a PhD in Plant Pathology from the University of California, Davis, in 1990 and an MS in Plant Biology from the University of Illinois, Urbana-Champaign, in 1986, and your 34-year career has been marked by international recognition as a champion for crucial soil health practices addressing environmental issues.

You joined UVM as chair of the PSS department from 2004 until 2018, and shaped countless careers as a thoughtful and visionary leader. Your extensive research continued through 2024, resulting in over 125 peer-reviewed articles and book chapters, spanning topics such as biological indicators of soil, ecotoxicology, climate change impacts, and sustainable agriculture. You have secured competitive research funding exceeding US\$13.3 million and earned the H.W. Vogelmann Award for Excellence in Research and Scholarship in 2009.

Your contributions extend beyond UVM. The Soil Ecology Society honored you with a Service Award in 2017, and in 2015 the Ecological Society of America established the Deborah A. Neher Career Award in your honor. Your memberships and leadership in esteemed organizations like the Soil Ecology Society, Society of Nematologists, and Ecological Society of America showcase your dedication to advancing your field.

As an educator, your engaging teaching methods and real-world examples inspire students globally. Your career epitomizes immense contributions to soil science, environmental sustainability, and education, solidifying your status as a revered figure. On behalf of the University and the College of

Congratulations (Cont.)

Agriculture and Life Sciences, we extend heartfelt thanks for your dedication and wish you the best in your future endeavours”.



Fig. 21. Dr Deb Neher with her department chair at the Emeriti banquet dinner.

Mexico

Dr María Gabriela Medina-Canales

On the 2nd and 3rd May, 2024, the **First Symposium in Agricultural and Livestock Health “90 Years Facing the Challenges of Mexican Agriculture”** was held at the **National School of Biological Sciences (ENCB, Mexico)** where presentations were given on different topics of Mexican agricultural interest. The **Agricultural Nematology Laboratory** was one of the event participants, and Dr Alejandro Tovar-Soto (Fig. 22A), head of the laboratory, gave the conference **“Agricultural nematology as part of phytosanitation”**, which covered the origin and history of Agricultural Nematology at the ENCB. The work of Chemical Bacteriologist-Parasitologist (QBP) student Karen Guadalupe Mireles Moreno was chosen as one of the best abstracts of the symposium, and Karen also gave the oral presentation **“Effect of secondary metabolites produced by *Lecanicillium psalliotae* on eggs of the root-knot nematode *Meloidogyne incognita*”** (Fig. 22B).



Fig. 22. Presentations by Dr Alejandro Tovar-Soto (A) and Chemical Bacteriologist-Parasitologist student Karen Guadalupe Mireles Moreno (B).

Dr María Gabriela Medina-Canales along with her students (Fig. 23), MSc Viviana Margarita Vega Becerril, and QBP students Karen Guadalupe Mireles Moreno, QBP Samantha Yoalli García Cholula, QBP Erika Rodríguez Hernández, QBP Wendy de Jesús Hernández and Clinical Laboratory Technician (TLC) Norma García Aguilar, were in charge of the nematology stand **“Recognition of the most forgotten villains in Mexican agriculture: nematodes and their control”** where they explained to visitors, in a simple way, which genera of plant-parasitic nematodes are the most important to Mexican agriculture. Exhibits included part of the agricultural nematology plant collection where the damage that these nematodes cause to plants could be observed by visitors (Fig. 24). Some of the fungi used to carry out the biological control of root-knot nematodes in laboratory assays were also shown. At the end of the oral session demonstration, and to encourage visitor participation, other activities and games were carried such as: nematodes and ladders puzzle, and the winners were given small gifts and a special ‘nematode memento’. The nematology stand was visited by students from different careers taught at the ENCB such as Biologist, Chemical Bacteriologist-Parasitologist, Biochemical Engineer and Industrial Pharmaceutical Chemist.

ONTA MEMBERS NEWS (Cont.)

Students and researchers from other Mexican universities and research centers, such as the Faculty of Veterinary Medicine of the National Autonomous University of Mexico (UNAM), biotic Products Center (CEPROBI-IPN), Postgraduate College (COLPOS, Montecillo Campus), Autonomous University of Chapingo (UACH), Agricultural Education Center (CEA), Faculty of Higher Studies (FES Cuautitlan, UNAM) and the Autonomous University of Queretaro attended the event.



Fig. 23. Laboratory of Agricultural Nematology group. From left to right: Dr Alejandro Tovar Soto, Viviana Vega, Norma García Aguilar, Dr Gabriela Medina, Erika Rodriguez, Wendy de Jesús, Yoalli García.



Fig. 24. Laboratory of Agricultural Nematology demonstration stand.

Italy

Dr Aurelio Ciancio

NEMATOPHAGOUS FUNGI: BIOCONTROL AGENTS OR CELL FACTORIES?



*Beyond the state-of-the-Art
Ad-Hoc Session Workshop*

Friday March 15th 2024: 12:30 pm – 1:45 pm.

Co-chairs: Luis V. Lopez-Llorca, University of Alicante, Spain [lv.lopez@ua.es] and Aurelio Ciancio, CNR, Italy [aurelio.ciancio@ipsp.cnr.it]

Fig. 25. Aurelio Ciancio (left) and Luis V. Lopez-Llorca (right). (Images: R. H. Manzanilla-López.)

A workshop on nematophagous fungi was organized by **Luis V. Lopez Llorca** (University of Alicante, Spain) and **Aurelio Ciancio** (IPSP CNR, Bari, Italy) during the 32nd Fungal Genetics Conference held by the Genetics Society of America (GSA) on 12-17 March, 2024 at Asilomar, CA (USA). The session included talks on endophytism, symbiosis, genetics and biochemistry of nematode-associated fungi such as *Trichoderma* spp. and *Pochonia chlamydosporia*. The workshop topic is scheduled for inclusion in the next 2026 GSA Congress. Interested people may contact either colleague (Fig. 25) to propose additional topics and talks.

ONTA MEMBERS NEWS (Cont.)

Spain

Dr Soledad Verdejo-Lucas

The third meeting of the Spanish nematologists took place in April 2024, coinciding with the celebration of the 35th ESN symposium (Fig. 26). The project to create the **Spanish Society of Nematologists** continues, and the official headquarters of the Society will be located at the University of Alicante. The statutes of the Society were drafted and presented to the Ministry for legalization and approval. The next meeting of Spanish nematologists will take place at the University of Jaen in January 2025.



Fig. 26. From left to right: Juan Emilio Palomares-Rius, Miguel Talavera-Rubia, Sara Sánchez-Moreno and Soledad Verdejo-Lucas.

Mexico

Dr Hugo H. Mejía-Madrid
Faculty of Science,
National Autonomous University of Mexico (UNAM)



Fig.27. Dr Hugo Mejía-Madrid.

In this issue, we are pleased to welcome a contribution by Dr Hugo Mejía-Madrid (Fig. 27) on the nematode fauna from the UNAM university campuses. We invited him to share with the ONTA Newsletter readers his ongoing research on soil nematode ecology, and he kindly accepted our invitation. Soil nematode ecology and taxonomy of soil and arthropods parasitic nematodes are research subjects that Hugo keeps promoting in Mexico and with his students at the UNAM.

Nematode fauna from university campuses in Mexico



Fig. 28. Semi-desertic vegetation near Juriquilla. (Image courtesy of H. Mejía-Madrid).

University campuses began to be concerned about their surrounding ecological systems since about the second decade of the XXI century. Mexico should be considered one of the pioneering countries in this respect, because since 1983, a natural volcanic area, within the main campus of the National Autonomous University of Mexico (UNAM)

in Mexico City, known as *Pedregal*, covered with an enormous array of plant and animal diversity, was decreed as a natural reserve within urban boundaries, protected by the administration of that university. Soil explorations in this campus have been limited to the study of some insects, like collembolans. Nevertheless, the study of microfauna has been altogether absent. Another main campus of UNAM, namely, campus Juriquilla (UNAM Juriquilla. Queretaro, Mexico) has recently been the object of systematic and ecological research within its boundaries (Fig. 28). A study of the nematode communities of the soil surrounding some of the buildings (some still undergoing construction) was undertaken in the late winter of 2023, during the dry season. Juriquilla is a suburb of the city of Queretaro, located some 430 km north of Mexico City. It has a dry semi-desertic climate, and the vegetation found there is a shrub land, with legume trees and a considerable diversity of cacti species (Fig. 29).

ONTA MEMBERS RESEARCH NEWS (Cont.)

Nematodes sampled there are predominantly bacterivores (52%), followed by herbivores (26.1%) and omnivores (11.3%), mainly ‘qudsianematids’(name derived from *Qudsia* genus); fungivores and predators represented 10.4%. Faunal analysis based on the Maturity Index (MI 2-5), BI (Basal Index) and SI (Structure Index) showed that nematode populations revealed environment pollution (the area was recently deposited with gravel), and a damaged or degraded trophic web. Metabolic footprints for omnivores, predators and structure revealed a low contribution of carbon to the system and a diminished contribution to the function and ecosystem services. Nematode indices applied to this area of approximately 2 hectares showed that, despite the presence of native vegetation cover, the area has been subjected to strong disturbance that stems from the construction of buildings that house university facilities, like classrooms, institutes and laboratories. Vegetation alone cannot reveal what is actually occurring beneath them. Concern had already been raised regarding this inordinate construction plan and this work helped to contribute to warn the university authorities of the need to keep a considerable area of native vegetation so that student and faculty members learn to appreciate a landscape that has been particularly degraded by unplanned urban expansion activities.

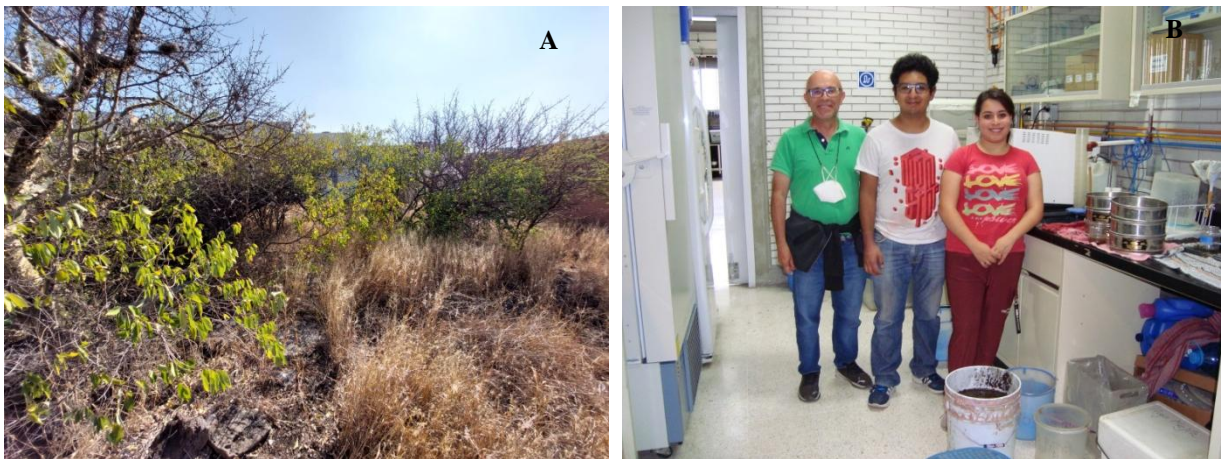


Fig. 29. A: Semi-desertic habitat near Juriquilla; B: Hugo and students at the UNAM University City campus(Mexico City). (Images courtesy of H. Mejía-Madrid (A) and R.H. Manzanilla-López (B)).

MASTER DEGREE IN ANALYSIS, CONSERVATION AND RESTORATION OF HABITATS AT UNIVERSITY OF JAEN, SPAIN



Fig. 30. Dr Joaquín Abolafia, Director of the Master.

The **Master Degree in Analysis, Conservation and Restoration of Habitats** from the University of Jaen (Spain) has, as general objective for students, to know and value the biological and geological resources contained in habitats, so that they can develop an adequate management of them and act accordingly in the face of the problems that arise in them, from scientific knowledge (Figs 30-32).



Fig. 31. Students at work.

The Master equips students to carry out a wide range of professional activities related to the environment, as it will equip them with a series of skills and knowledge that are currently in high demand: management of natural spaces, study of animal and plant diversity, analysis of soil and freshwater nematofauna, management of wild fauna for the prevention of zoonoses, preparation of conservation, rehabilitation and restoration projects, management of geomatics (methods and techniques used to collect, distribute, store, analyze and process geographic data) applied to the environment, environmental data analysis, landscape analysis methodologies, estimation of the carbon footprint, assessment of geological elements for the definition of sustainable exploitation programs for the natural environment, etc.

Our experience allows us to guarantee the quality and relevance of the contributions of the students who have completed the Master in multidisciplinary work teams, in which the environmental specialist is constituted as an essential professional.

The master's thesis can be carried out in numerous lines of research, including those corresponding to the study of nematofauna in natural and agricultural environments. These works are directed by the nematologists **Dr Joaquín Abolafia (Fig. 30)**, **Dr Reyes Peña-Santiago** and **Dr Gracia M. Liébanas**.

For more details visit our website: <https://www.ujaen.es/estudios/oferta-academica/masteres/master-universitario-en-analisis-conservacion-y-restauracion-de-habitats#presentacion>

GRADUATE PROGRAM (Cont.)



Fig. 32. A: University of Jaen, Spain; B: Master students. From left to right: Alba N. Ruiz-Cuenca, Miriam García-Ruiz, Cristina Robles-López and Dr Joaquín Abolafia (Director of the Master in analysis, conservation and restoration of habitats).

**Diana H. Wall Remembrance
(1943-2024)**

Prepared by Deb Neher



Fig. 33. Diana Wall earned the Ulysses Medal given by University College Dublin in 2015.

On 25 March, 2024, we lost a groundbreaking soil ecologist whose first love was nematodes. Diana (Fig. 33) was a staunch champion for soil biodiversity and science. She had an incredibly productive science career and was recognized for her achievements and leadership by numerous organizations.

She earned her PhD in Plant Pathology at University of Kentucky in 1971. Thereafter, she spent 21 years at University of California-Riverside as a postdoc, Assistant Research Nematologist and eventually Professor. She moved to Colorado State University in 1993, where she was a professor of biology and University Distinguished Professor. She served as director of the Natural Resource Ecology and was founding director of the School of Global Environmental Sustainability. As a soil ecologist, she spent more than 25 years with her colleagues in the McMurdo Dry Valleys of Antarctica (Fig. 34) where she demonstrated critical links between nematode diversity and climate change. In 2004, she was recognized for her work on the continent by having an Antarctic feature named after her, i.e., Wall Valley.



Fig. 34. A: Diana Wall was recognized for her work by having an Antarctic feature named after her in 2004, i.e., Wall Valley; B: Diana Wall at work in Antarctica where she discovered her favorite nematode, *Scottnema*.

Diana was a mentor to many soil ecologists. Below are some quotes from scientists that worked with Diana at some point in their careers:

“Diana was a role model for many women in ecology. I am grateful to have interacted with Diana and I will try to channel her energy for the rest of my career.”

“I was lucky enough to work with her on a book project when I was a grad student and she was a wonderful advocate for young scientists.”

“Diana encouraged me to begin my research journey on nematode ecology, and later nominated me for various national service opportunities which expanded my professional profile and network.”

Among her many leadership roles, Diana served as president of the American Institute of Biological Sciences, the Ecological Society of America, the Association of Ecosystem Research Centers, and the Society of Nematologists. Wall was also the Chair of the Council of Scientific Society Presidents in 2003. She was elected a member of the National Academy of Sciences in 2018. One of Diana Wall’s greatest legacies is her role in establishing and serving as scientific chair of the Global Soil Biodiversity Initiative (GSBI). Diana co-founded GSBI as a grassroots organization in 2011 together with Wim van der Putten, Richard Bardgett, Johan Six, and Luca Montanarella to connect scientists and inform policy, education, and the public on soil biodiversity. As the leader of GSBI, Diana prioritized the inclusion of scientists from under-represented groups, the global South, and early career researchers, and advocated for their access to resources. Over the last decade, Diana encouraged the production of the first Global Soil Biodiversity Assessment (2020), secured GSBI participation in the UN’s Convention on Biological Diversity-COP14 and international monitoring efforts such as the Soil Biodiversity Observation Network (SoilBON) and the UN Food and Agriculture Organization’s (FAO) Global Soil Biodiversity Observatory (GLOSOB). She spearheaded the creation of the international Global Soil Biodiversity Conferences (Dijon, Nanjing, and Dublin), and during Covid produced ‘GSBI Speaks’ a series of online webinars to keep the global soil biodiversity community connected.

Her legacy will live on in her work, her students, and the planet she fought to protect. Thank you, Diana, for all you accomplished!



Fig. 35. Diana Wall sits with the Tyler Prize Executive Committee during the 2013 Tyler Prize awards ceremony.

Her life was publicly celebrated on 6 May 2024 in Ft Collins, Colorado and 25 May 2024 in Raleigh, North Carolina, USA.

Her obituary was printed in two scientific journals:

- Bardgett, R. D., 2024. Diana Wall obituary: ecologists who foresaw the importance of soil biodiversity. *Nature* 629(8013): 754. doi: 10.1038/d41586-024-01414-9.
- Lubchenco, J. and Galvin, K. A. 2024. Diana H. Wall (1943-2024) Pioneering Antarctic ecologist and ambassador for soil health. *Science* 384 (6698): 852. doi: 10.1126/science.adq0103.



Fig. 36. Views from Cordoba. A: Casa Andalusi, a XII century home ('Andalusi house'); B: One of the Patios of Cordoba houses; C: Entrance to the cathedral (old 'mezquita' or mosque).



Fig. 37. A: model of the tools used in paper production (Andalusi house), a knowledge that was introduced by the Andalusi people and which was part of the anteroom of the Renaissance in Europe; B: The museum of the alchemist, the first of its kind in Europe. (Images courtesy R.H. Manzanilla-López)



Fig. 38. Cyst nematode.
(Image courtesy of Matthew Back).

The **6th Symposium of PCN Management** will take place in **September 2024**.

Further information at

<https://www.aab.org.uk/event/6th-symposium-of-potato-cyst-nematode-management/>.

AAB 6th Symposium of Potato Cyst Nematode Management – Harper Adams University, 10-11th September 2024

This conference provides a unique opportunity for researchers and specialists from across the world to meet and learn about the latest research on management strategies for tackling one of the most important nematode pests of potato – the Potato Cyst Nematodes (Fig. 38). The two-day meeting consists of presentations, workshops and networking opportunities (Fig. 39). Delegates can attend in person or join through an online platform. We have the pleasure of confirming three invited speakers; James Price (James Hutton Institute), Misghina Teklu (Wageningen University Research) and Sebastian Eves-van den Akker (University of Cambridge). James Price will be discussing the outputs of a 5 year project funded by the Scottish Government (PCN Action Scotland), aiming to improve the sustainability of the potato and bulb industries of Scotland through integrated management of PCN. Misghina Teklu is involved in a number of projects looking at the development of resistant and tolerant potato cultivars and will report on recent observations of increased virulence of *Globodera pallida* in the Netherlands. Sebastian Eves-van den Akker and his group have conducted a range of work on plant-nematode interactions and the ‘effectorome’, and high throughput phenotyping of nematode parasitism.



Fig. 39. A: Main building of Harper Adams University dating back to 1901; B: The conference's facility at the Regional Food Academy of Harper Adams University (Shropshire, UK) where the meeting will be held.

ONTA'S AGENDA 2024 (Cont.)



XX International Plant Protection Congress 1-5 July, Athens, Greece.

Fig. 40 . Plant Protection Congress (image courtesy of Thomae Kakouli-Duarte).



The **8th Symposium of Biofumigation** will take place in **Argentina** on the **21-25 October 2024**. Information at <https://biofumigacion.ar/en/home/>

Fig.41. Mustard (image courtesy of Matthew Back).

INVITATION

ONTA
FOUNDATION



payment; 3) wire transfer. Janete Brito and Renato Inserra have full codes for wiring if requested.

Please give generously to support the activities and projects of the ONTA Foundation.

Get busy! ONTA Foundation, Inc. status is clear and high. Open your wings and take a flight!

Dear ONTA member,

ONTA Foundation is ready for a campaign to request donations and expand its contributor base in a big way. ONTA Foundation can receive funds through several means: 1) checks made out to the ONTA Foundation and mailed to Janete Brito (Fig. 42); 2) credit card, same information required as for membership



Fig. 42. Dr Janete Brito.

ONTA NEWSLETTER INVITATION

Dear ONTA member,

Do you have a passion for nematodes and nematology? Would you like to share nematology news and pictures with our ONTA members? If so, welcome aboard!

We would like to extend to you a warm invitation to send or share information for our next ONTA Newsletter issue.

Please contact us. We are looking forward to hearing from you and to learn about your local nematology events and news.

Thanks,

Rosa (ONTA Newsletter editor)



Fig. 43. Rosa H. Manzanilla-López.

ACKNOWLEDGEMENTS

The ONTA Newsletter editor would like to thank all ONTA Newsletter contributors for sending and sharing information and images.

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ONTA gratefully recognizes the long-standing support received in 2024 from Dr. Luis Payan (SYNGENTA). ONTA is very appreciative for the sustaining members contributions received in 2023 from AgBiome, and in previous years from Adama, Amvac, Bayer, CERTIS Biologicals, Corbana, Corteva Agriscience, E-Nema, Ebio-Pioneer Chemicals, FMC, Koppert Biological Systems, Market ARM International and Marrone Bio Innovations hoping that they will maintain their interest in helping ONTA activities.



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