



ORGANIZATION OF NEMATOLOGISTS OF TROPICAL AMERICA
ONTA NEWSLETTER

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May 2022

LIII ONTA ANNUAL MEETING
CAIRO (Egypt) 2023



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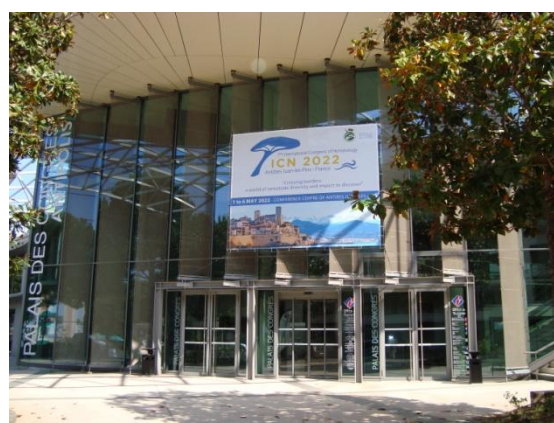


Fig. 1. Palais des Congrès (Juan-les-Pins, France).

LIII ONTA ANNUAL MEETING
CAIRO (Egypt)

First Announcement



Fig. 2. Egypt will host the LIII ONTA Annual Meeting in 2023.

The **Organization of Nematologists of Tropical America (ONTA)** and the Local Arrangement Committee represented by members of ONTA, and the **Egyptian Society of Agricultural Nematology (ESAN)** greet and cordially invite you to participate at the 53rd (LIII) ONTA Annual Meeting to be held in Cairo November 2023 (specific location and date to be confirmed soon). Egypt will simultaneously introduce ONTA members to North Africa and the Middle East, which are both important agricultural regions adopting advanced agronomic practices to grow crops.

This meeting will allow ONTA members to interact with nematologists from North Africa and Middle East and will stimulate exchange of ideas and nematological experiences. ONTA members will experience not only new aspects of plant and insect nematology but also a cultural encounter with one of the cradles of human civilization, with many breathtaking and a unique opportunity to enrich their educational background.

Egypt is among the top ten countries with the most beautiful tourist places (Fig. 2). The Great Pyramids in Giza, the new Egyptian Museum, the Grand Bazaar marketplace, Luxor temples and tombs, cruising the Nile, diving in the Red Sea coast, exploring Coptic and Islamic Egypt, St. Catherine's Monastery, and Hurghada, are just few of the many spectacular experiences that are available. The Egypt 2023 ONTA meeting will be a memorable cultural exchange, cultural exchange being the first essential step in creating the interpersonal and intercultural trust required for the meaningful exchange of scientific knowledge and research opportunities.

Specific information about dates, scientific program, accommodation, registration costs and travel will be provided soon in a second announcement.

FROM ONTA'S NEW PRESIDENT



Fig. 3. Fahiem El-Borai Kora.

Dear ONTA Family:

I am honored to have had the privilege to serve you as Vice-President (VP) Elect since our ONTA meeting in Costa Rica in 2019. The COVID-19 Pandemic that started in 2020, prevented us from meeting in person, but finally we joined with other nematological societies members at the 2022 International Congress of Nematology held in France, this month. In late 2021, with sorrow and sadness, ONTA family lost our dear colleague and friend MSc Jose Fabio Chaverri Fonseca who was serving as ONTA VP since 2019. As incoming VP, the ONTA Executive Committee (EC) asked me to serve as the new ONTA VP, which I accepted without hesitation. Then, at the 7th International Congress of Nematology (ICN) in France I was honored to start my term as President.

I would first like to extend my deepest appreciation to the ONTA Past President Dr Martin Augusto Delgado for his service as President of our Organization from 2019-2022. Under his leadership and guidance, I was honored to have the privilege to serve with

him in the capacity of ONTA VP. Also, I would like to deeply express my appreciation to all ONTA Executive Committee members and other Officers, who devoted their time, worked very hard through the pandemic to keep our society alive, updated, connected, and well informed about all nematology news. I am extremely pleased to be one of them.

As President of ONTA, I will deal with the many challenges and difficulties that our organization is facing, such as changes of the composition of the EC and other committees, the necessity to increase memberships and obtain funding to support ONTA activities and bursaries for the participation of students in need in annual meetings.

Another challenge is the planning of the Annual Meeting of our Organization in 2023. At the 7th ICN an invitation that I submitted to the ONTA EC to host the ONTA 53rd Annual Meeting in Egypt was approved. The Egyptian Society of Agricultural Nematology (ESAN) and all the Egyptian people are very pleased to host not only the ONTA family but also nematologists from around the globe. This will be the first time that ONTA will meet outside of North and Tropical American countries. More details about this meeting are reported in the preliminary announcement that is posted in the ONTA Newsletter.

The election of the new VP, Dr Ernesto San Blas, who will be followed by the incoming VP elect Dr Tristan Watson, energizes our organization. ONTA will benefit greatly from the scientific and organizational skills of these two new officers. I will be pleased to cooperate with Dr San Blas and the Local Arrangements Committee in preparing an excellent scientific program for our meeting in Egypt.

The interaction of ONTA members with ONTA officers and vice-versa is essential

for the success of ONTA activities and the implementation of new initiatives in other geographical areas in addition to the Americas. I am confident that together we will invigorate the Organization and will successfully accomplish major objectives concerning educational and research programs in Tropical Nematology. Suggestions and innovative ideas

will be well received by myself and other ONTA officers.

Respectfully,

Fahiem El-Borai Kora
ONTA President (Fig. 3)



Fig. 4. ONTA Business meeting in Juan-les-Pins Antibes. From right to left: ONTA Past President (Martín Delgado Junchaya), ONTA President (Fahiem El-Borai Kora, ONTA Vice-President (Ernesto San-Blas) and ONTA Vice-President Elect (Tristan Watson).

FROM ONTA'S VICE-PRESIDENT



Fig. 5. Ernesto San-Blas.

Dear ONTA members,

First of all, I would like to express my gratitude to everyone for having placed their trust in me to participate in the leadership of ONTA in the next two years. I want to take this opportunity to mention that, despite the situation caused by the pandemic, the 7th International Nematology Congress (ICN2022), which has just ended in Antibes (France), was a great opportunity to meet again and reactivate ourselves as a group. I want to highlight that the participation of ONTA members in ICN2022 was characterized by a significant number of

attendees and by the quality of the presentations and posters. The ICN2022 was a favorable scenario to discuss and plan the future of ONTA after three years without face-to-face events. In this sense, we are presented with a new opportunity for the year 2023 to organize the next ONTA meeting in Egypt; we will do so with the same commitment and enthusiasm as always. We are aware that we have a great responsibility towards our students and young researchers whom we want to make a fundamental component of this new stage of ONTA. That is why from today we have begun to work to achieve a large participation in the next congress, but we also have the firm intention of promoting other interaction dynamics between members through new approaches to participation. Lastly, I would like to invite the entire ONTA community to join us in this new challenge that lies before us. I hope to be able to count on everyone's support in the coming months to demonstrate together the scope and value of our investigations.

Respectfully,

Ernesto San-Blas (Fig. 5)
ONTA Vice-President

FROM ONTA'S VICE-PRESIDENT ELECT



Fig. 6. Tristan Watson.

Greetings ONTA Members,

It was a pleasure to see many of you at the 7th International Congress of Nematology in Antibes, France this past May after two years of COVID-19 related delays. The pandemic has certainly been a trying time; however, the scientific program at ICN

2022 was proof that scientific progress continues onward, even in the face of challenges.

It is an honor to have been elected as Vice-President of ONTA from 2023 – 2024. My goals for ONTA include reuniting members after the COVID-19 pandemic as well as pursuing avenues to increase new membership from early career scientists and students. I look forward to working closely with our current President (Fahiem El-Borai Kora) and Vice-President (Ernesto San Blas) on all ONTA related activities, including hosting our next ONTA meeting. I hope to see you all at ONTA 2023 in Cairo, Egypt.

Sincerely,

Tristan Watson,
ONTA Vice-President Elect (Fig. 6)

FROM THE NEWSLETTER EDITOR



Fig. 7. Rosa H. Manzanilla-López.

Dear ONTA members,

We are very pleased to be in contact with you through the ONTA Newsletter. In this issue we will share, among other important topics, some highlights of the 7th International Nematology Congress (1-6 May 2022) that was recently held at Jean-les-Pins Antibes (France). As has been pointed out by ONTA IFN councilor Aurelio Ciancio in a thanking letter to IFNS officers Larry Duncan, Ernesto San-Blas and Andreas Westfal, who served the Federation from 2014-2022 respectively as President,

Vice-President and Secretary: *“Keeping IFNS progressing during these years, as you did, has been a great endeavour and a highly demanding effort. We also appreciate all activities eventually developed in the organization of the Congress, in spite of the Covid-19 imposed delay. We are very grateful to all of you, including Pierre Abad, Eric Grenier and all the other people that directly or indirectly contributed to the success of this event”.*

In recognition to their work, we have included in this issue the final memo sent by Larry, Ernesto and Andreas to all IFNS councilors with the aim to share with you a detailed account of the many activities and efforts made by both IFNS officers and local organizers behind the scenes. Efforts that usually pass unknown to many of us reveal the great dedication, commitment, and determination showed by officers and organizers to deliver an INC of excellence every six year or longer, as was indeed the case for the Seventh (7th) INC.

This was the first INC that had people attending through web-based applications and demonstrated the potential of web resources to increase the 17 IFNS societies participation and in future to prepare ICN scientific programs. Delegates from 53 countries and 45 ONTA members attended the 7th ICN.

We thank the ONTA Past President and Vice-Presidents for serving a longer period due to the Covid-19 pandemic and welcome our new ONTA Officers.

We would like to assure you that all ONTA officers will keep working to maintain our Organization alive and active, and that we are looking forward to hearing from you wherever you are.

Kind regards,

Rosa

IFNS OFFICERS FINAL MEMO

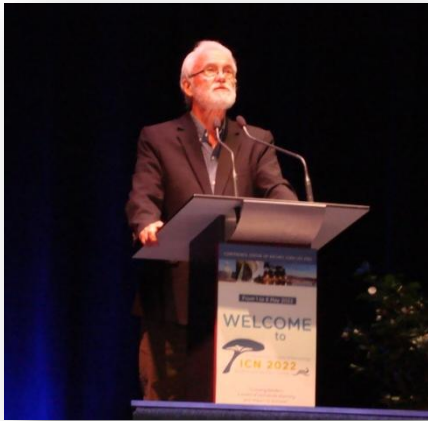


Fig. 8. Larry Duncan IFNS President.

Antibes, 30 April, 2022

Dear Councilors,

In a few days, during the Seventh (7th) International Congress of Nematology, our term of service to IFNS will end. Our tenure was longer than customary and we feel honored and grateful for the opportunity to work with all of you in support of nematology and to make this congress a reality. We are especially grateful to Frieda Decraemer and Rosa H. Manzanilla-López for their continued support of IFNS and thoughtful advice early on, and to Eric Grenier for working so hard on behalf of the student projects. As is customary, we respectfully submit this final memorandum reflecting on the mandate of the IFNS, what was and was not accomplished, and what was learned that might provide guidance going forward.

The mission of the Federation is to plan, facilitate, and promote International Congresses of Nematology, to foster global awareness of nematodes and advancement of the science of Nematology, and to serve as a worldwide interface for Nematology Societies by promoting communication, education,

research, and outreach. To serve this purpose, the Federation fosters exchange of information, and extends knowledge worldwide on all facets of Nematology.

How best to pursue the mandate is open-ended with one exception, the Congress. IFNS reflects the evolution of the International Congress of Nematology from a somewhat parochial event involving three societies, to a truly global endeavor. The Covid-19 pandemic has been challenging, but has also highlighted some technical opportunities for IFNS noted below. Following is a summary of IFNS activities since the last Congress.

Projects

The appearance of the IFNS website was extensively updated in 2015 to feature a kinetic style that promoted several nematology journals, with new material periodically added to advertise upcoming meetings, employment opportunities, promotional information, etc. The pages for each society were updated and councilors were encouraged to send new material as needed. Eventually, however, those efforts languished, and the website requires renewed attention. An important exception was the inclusion by Ernesto San Blas of a Twitter account on the site that has remained vibrant since the beginning with more than 1000 very active followers. Discussions on the site prompted Ernesto to conduct a poll prior to the anticipated 2020 congress, on student preferences for the kinds of activities that should be supported by IFNS. The results of the poll will be presented as a positive, forward-looking vision for IFNS in the final plenary talk of the Congress. Ernesto leaves office with the advice of creating an active student component within IFNS to take advantage of their energy, vision, enthusiasm and comfort by exploiting electronic means of outreach.

IFNS OFFICERS FINAL MEMO (cont.)

Similarly, the now-universal familiarization with and use of Zoom meetings resulting from the pandemic will reinforce such activities by IFNS councilors by facilitating regular meetings to plan and review progress of projects. A recent example was the first virtual meeting of all IFNS councilors in 2020. Following face-to-face discussions at that meeting and at smaller subsequent meetings, John Jones organized the first, highly successful virtual symposium sponsored by IFNS in October 2021, and Eric Grenier took the lead in organizing an IFNS, virtual Three-Minute-Thesis student competition at the end of 2021 in which the top-three competitors were awarded bursaries to attend ICN 2022.

IFNS Meetings

Since the 6th ICN there have been more than a dozen IFNS meetings attended by councilors and interested parties at the annual meetings of nematology societies. Meetings occurred during **ESN** in Braga and Ghent, **SON** in East Lansing, Montreal (roadmap), Williamsburg, Albuquerque, Raleigh, and Gulf Shore, **ONTA** in Varadero, Montreal, Mayaguez, Arequipa, and San Jose, and **CSPN** in Xi'an. Many of the early meetings were brief discussions about potential congress venues. The most consequential early meeting was in Montreal in 2016 that became the eventual roadmap and guidelines for the seventh ICN. Thereafter, annual reports to the councilors relayed the progress and the next steps on this roadmap. Some meetings, especially that in Ghent, were particularly well-attended by worldwide colleagues with ideas and follow-up efforts to increase bursary fundraising. Following the Ghent meeting, Deliang Peng invited IFNS representatives to the First Belt and Road International Nematology Symposium, where funds were

secured from an agricultural company to support ICN bursaries for 10 Chinese students. The only fully open nematology meeting to occur post-pandemic, Gulf Shore in September 2021, was instrumental in fostering the possibility of providing online access to the 7th ICN to those who cannot travel. Previous consideration of this topic by the local arrangements committee concluded that it would be too expensive. This was disputed with some examples given at the Gulf Shore meeting. The possibility was re-investigated and the means were found to make ICN 2022 the first hybrid ICN with virtual attendance at all sessions and a virtual pre-Congress poster session.

The first IFNS virtual meeting occurred over two days in late October, 2020 to consider the fate of the 7th ICN. Uncertainty about the pandemic was fully evident by that time and a third postponement of ICN would unacceptably interfere with the ability of individuals and societies to make future plans. Councilors unanimously chose to postpone the congress until spring 2022, rather than cancel the event, conduct a virtual congress, or risk the need to once again cancel a meeting in 2021. Approximately one year later, in November 2021 travel conditions permitted the reopening of the 7th ICN registration page. At this virtual meeting the perceived need to fill the void, especially for students, was discussed and eventually resulted in the virtual three-minute-thesis competition and the first online symposium sponsored by IFNS. The refinement of virtual meeting technology and its widespread use during the pandemic facilitated the comprehensive gathering of all councilors to conduct this critical business and will undoubtedly be adopted by IFNS going forward.

IFNS OFFICERS FINAL MEMO (cont.)

Bursaries

Emphasis on expanding the opportunity to attend the ICNs began prior to the 5th ICN and resulted in the first bursaries awarded to students from developing economies. The effort to incorporate IFNS prior to the 6th ICN was partly to support fundraising by an IFNS committee to fund bursaries for students from all parts of the world. While that effort was unsuccessful, the work to fundraise for bursaries continued and 56 students received support to attend the Cape Town meeting. Prior to the 7th ICN this was again a major objective of IFNS. A goal of 100 bursaries was established and eventually accomplished by a variety of approaches. The ad hoc bursary committee abandoned the practice of not soliciting from congress sponsors and approached several with close connections to nematology with a request to fund a given number of bursaries. The committee also approached several regional companies with the request to fund student travel from their regions. These particular efforts raised more than €38,000. To avoid overlapping applications and outcomes, several societies and foundations agreed to pool their contributions into a single fund. These donations and traditional fundraising from sponsors produced €100,000 for bursaries. A competition organized and judged by IFNS councilors selected 100 students and early career scientists from nearly 200 applicants to receive support in amounts of €600 for those in the EU and €1200 for non-EU, that was divided equally between students in high income and lower income countries. As with the congress organizational plans, these approaches and rationale to support student travel are being compiled as an operations manual for consideration by future IFNS committees.

ICN 2022

Interest in submitting proposals to host the 7th ICN was signified by SON, BSN, CSPN, and ESN. All but SON submitted bids and that of ESN was chosen by a vote of councilors in April 2016. Duncan visited Antibes to meet with Pierre Abad and Philippe Castagnone in July 2017. It was decided there to make the meeting as affordable as possible by charging a sliding registration fee with reduced rates for delegates from lower income countries, and securing 100 beds in a youth hostel. Bursary fundraising strategies were discussed, and colleagues worldwide identified who could fundraise. Target dates were set to complete a website, basic scientific program, final program, registration and late registration. Subsequently, a first draft of the scientific program was submitted to IFNS councilors in June 2018, with plenary speakers identified by January 2019, and a modified program was finalized by 1 May 2019, one year before the scheduled congress. Pierre, Ernesto and I employed Skype to meet frequently thereafter with each other and with the Alpha Visa team to operationalize that program. Following the postponement of the ICN 2020, we all met regularly to assess, and provide options to the IFNS. Activities since reopening the Congress registration involved reconstituting the participation in the original program and transferring some bursaries from those no longer planning to attend, to former competitors and new applicants.

Nominations for new officers were solicited on 6 November 2019 and ballots were sent to councilors on 6 April 2020. John Jones and Thomae Kakouli-Duarte were elected Vice-President and Secretary, respectively, and a runoff was announced on 14 May 2020.

IFNS OFFICERS FINAL MEMO (cont.)

Florian Grundler was announced as President-elect in July 2020. All officers-elect (Fig. 9) agreed to wait until the 7th ICN to assume office and each has played an active role in our organization in the meanwhile.

Larry, Ernesto and Andreas



Fig. 9. IFNS Officers (2022-2028). From right to left: Florian Grundler (President), John Jones (Vice-President) and Thomae Kakouli-Duarte (Secretary). Images courtesy of Florian, John and Thomae.

7th ICN HIGHLIGHTS ANTIBES JUAN-LES-PINS

Pierre Abad, Chair, 7th ICN, welcomed delegates and guests (Fig. 10) to Antibes Juan-les-Pins (France), that has been for ‘long a center of nematology’ and a seaside resort that dates back to the “Belle Epoque” period (1920s). The 7th ICN was organized by the **European Society of Nematology (ESN)** under the auspices of the **International Federation of Nematology Societies (IFS)**, that includes 17 societies/organizations of nematology. Pierre pointed out the 7th ICN was a **celebration of the best of nematology** with the theme of “**Crossing borders: a world of nematode diversity and impact to discover**” an important topic ‘*to reconcile the global importance of agricultural production with that of environment conservation*’ (Abad, San-Blas and Duncan, 2022).



Fig. 10. Opening ceremony of the 7th ICN. A: Pierre Abad (Local Committee Chair); B: Delegates.

After Pierre Abad’s introduction, Larry Duncan (IFNS President) also welcomed all Congress participants. Larry remarked the great achievement of making it possible to hold a face-to-face Congress, and granting 100 bursaries to students and early career nematologists. The 7th ICN bursaries almost doubled in number the 56 bursaries of the 6th ICN (South Africa, 2014). Ralf-Udo Ehlers (ESN President) in his opening speech (Fig. 11A) highlighted climate change, the importance of science, the need to understand the impact of nematode biodiversity on the agricultural production systems, and the “*fantastic potential of scientist to develop successful strategies to overcome the problem*”.

Aumeja Ouyeder (Fig. 11B), Manager of Bayer Global Portfolio, highlighted the importance of plant-parasitic nematodes that worldwide annually cause losses of ca one billion dollars. Her talk also included a video message from Heiko Rieck (Bayer Head of Research Department). She introduced Bayer’s novel nematicides portfolio pointing out the importance of nematode control, the inclusion of both chemical and biological products, and the use of resistant varieties as part of an integrated nematode management approach.

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

Fig. 11. Opening ceremony. A (from left to right: Larry Duncan (IFNS President), Ralf-Udo Ehlers (ESN President), Jeanick Brissewalter (Université Côte D'Azur): B: Aumeja Ouyeder (Manager of Bayer Global Portfolio).

Jeanick Brissewalter (Université Côte D'Azur) remarked the importance of University collaborations with INRA, some of them modelled in programs such as NEMADUSSA (Education in Sub-Saharan Africa (Fig. 12); <https://nemadusa.ugent.be/>).



Fig. 12. Jeanick Brissewalter (Université Côte D'Azur).

Fatma Kaplan (Biocontrol in Space, ASTRONEMATODE, USDA, Pheronym, ISSNL) gave the first plenary conference (Fig. 13) of the 7th ICN, which dealt with the first agriculture biocontrol experiment in space: **'Microgravity effect on entomopathogenic nematodes' ability to find and kill insects'** (see Dynamics of entomopathogenic nematode foraging and infectivity in microgravity, <https://www.nature.com/articles/s41526-020-00110-y>). The second plenary conference was given by **Pierre Abad** on the topic of **'Plant root-knot nematode interaction: a sophisticated dialogue'**. After the first two plenary sessions, the scientific program activities continued with several parallel oral sessions, poster flash presentations and poster sessions (Fig. 14).

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)



Fig. 13. First plenary conference given by Fatma Kaplan.

This way, delegates had the opportunity during four days to attend different scientific activities, which included a total of 11 plenary sessions, 31 oral sessions, nine workshops, two forums, and several societies executive meetings.

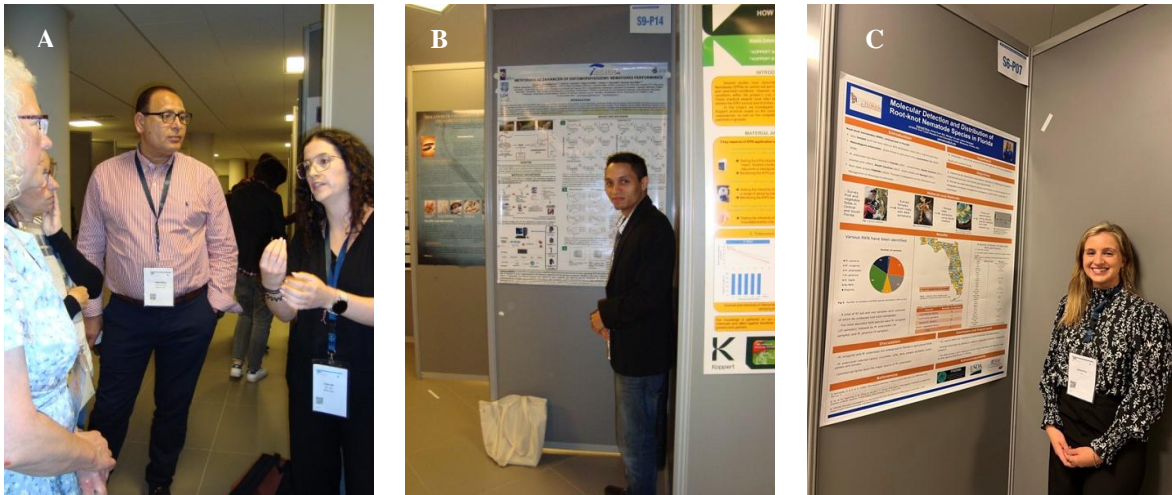


Fig. 14. Poster competition. A: Judges listening the poster presentation given by Paula Lillo (CSIC, Spain); B: Lenin González-Paz (University of Zulia, Venezuela); C: Gabrieli Riva (University of Florida, USA).

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

There was also time during coffee and lunch breaks to meet old friends and colleagues or make new ones, and to visit the exhibit area with different sponsors stands (Figs. 15-16), which included Bayer (Lead sponsor), Adama, BASF, Syngenta (Gold sponsors), CORTEVA Agriscience, Groupe ROULLIER (Silver sponsors), HELLO NATUREM Koppert, Marrone Bio Innovations (Bronze sponsors), and other sponsors such as Brill, CABI, Limagrain *from earth to life*, PICO, RIJK ZWAAN and SESVANDERHAVE sugar beet seed.



Fig. 15. Views from the sponsors' stands area. A: from left to right, Bayer representatives Alfonso Cabrera, Kelly Luff, Ursel Collienne, Stephanie Sauzay, Sebastian Hartmann-Wittulsky and Marc Rist; B (left to right): Richard Sikora, Johan Desaegeers and Larry Duncan; C: Rosa H. Manzanilla-López and Shaun D. Berry (BASF); D: Rosa Manzanilla-López and Miguel Talavera-Rubia.

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

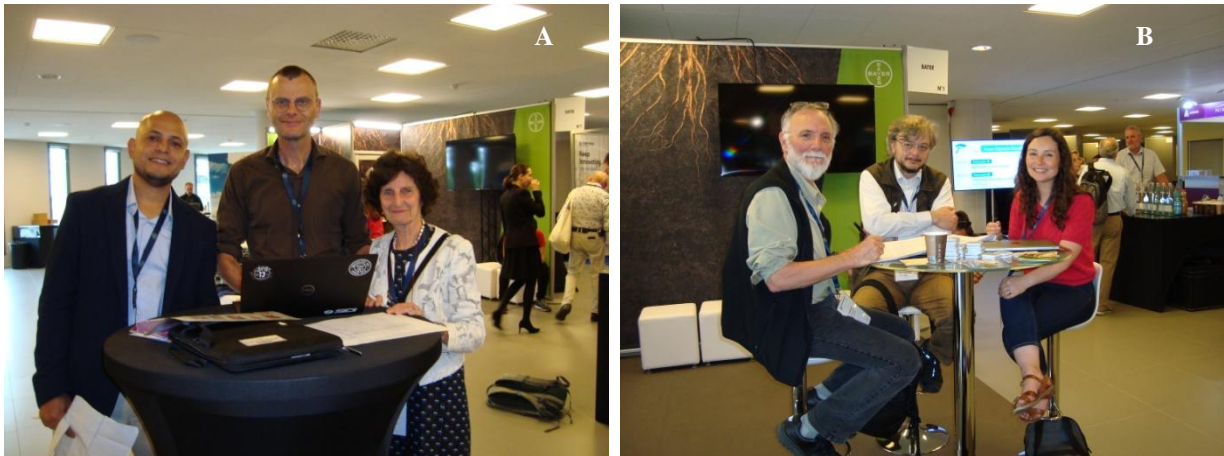


Fig. 16. Views from the sponsors' area (cont.). A: (left to right) Danny Humphreys, Wim Bert, Frida Decraemer; B: Tom Powers, Alexander Holovachov and Erna King.

Other program social activities included, on Sunday 1 May, a welcome reception (Fig. 17), drinks reception (Tuesday 3 May), tours (Wednesday 4 May) and Gala Evening (Figs 17-20).



Fig. 17. Welcome reception. A: General view; B (left to right): Gladys Munera, Aurelio Ciancio, Mariella Finetti-Sialer and Martín Delgado-Junchaya; C: Christer Magnusson and Ricardo Holgado; D: Fahiem El-Borai Kora, Martín Delgado-Junchaya, Aurelio Ciancio and Ricardo F. Espino.

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

The winners of students competitions were announced at the Gala evening (Thursday 5 May).



Fig. 18. Gala evening. A: Musicians; B: Delegates; C: Janete Brito announcing student competition winners; D: Larry Duncan with 7th ICN bursary awardees; E: Monique and Maurice Moens; F (left to right): Raquel Campos-Herrera, Janete Brito, Carolina Cedano and Gladys Munera.

GROUPS AND AWARDEES – STUDENT POSTER COMPETITION



Fig. 19. Student awardees. Left to right: Valdeir Junio Vaz Moreira, Renáta Petrikovszki, Olaf Kranse, Boris Stojilkovic, Abigail Jackson, Sara Eliáš, Lester A. Núñez Rodríguez and Phougeishangbam Rolish Singh.

Janete Brito: Student Committee, ONTA

1. **IPM:** 1st Place: Valdeir Junio Vaz Moreira , 2nd Place: Renáta Petrikovszki
2. **Host-Parasite Interaction/Effectors/ Resistance:** 1st Place: Olaf Kranse, 2nd Place: Boris Stojilkovic .
3. **Ecology/Systematics/Evolution:** 1st Place: Phougeishangbam Rolish Singh, 2nd Place: Lester A. Núñez Rodríguez.
4. **Organismal/ Behavior/Physiology:** 1st Place: Abigail Jackson , 2nd Place: Sara Eliáš

At the closing ceremony Pierre Abad and Danny Coyne became new ESN fellows. Congratulations!

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

Tour post cards



Fig. 20. A-B: Roses and Rosé tour (Courtesy Mariella Finetti-Sialer); C-D: Monaco tour; D-E: Juan-les-Pins.

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

Pierre Abad also gave a recognition at the closing ceremony to Alpha-Visa, the company that was in charge of Congress logistics, and especially to Marion Barreyat (Fig. 21).



Fig. 21. Pierre Abad thanking Alpha-Visa staff.

All 7th ICN sponsors contributions were greatly appreciated by IFNS and local organizers, and we would like to add as well a big ‘Thank you’ from ONTA to all of them, especially to lead sponsor Bayer (Fig. 22); gold sponsors BASF (Shaun D. Berry, Fig. 15C) and Adama (Pablo Navia); and silver sponsor CORTEVA (Tim Thoden) for bursary support.



Fig. 22. Bayer CROPSCIENCE Lead Sponsor (left to right): Ursell Collienne, Alfonso Cabrera, Jeff Baxter, Marc Rist and Sumeja Ouyeder.

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

Manuel, Daine and Ilia Mariana (Figs 24-29), three early career bursary winners of the 7th International Congress of Nematology, and Lizzete Dayane (PhD student, Fig. 30) share with ONTA members, in the following pages, their experiences in attending the 7th International Congress of Nematology.

Manuel Silva-Valenzuela

I really enjoyed my attendance and participation in the congress. I had the opportunity to meet the best researchers in the field of Nematology and, above all, to learn about the current lines of research being developed in the field of resistance, management, biological control and interactions (Fig. 23).



Fig. 23. Views from opening ceremony (A), plenary conferences (B) and poster sessions (C).

I also was amazed by the capacity and talent shown by the newer generations of nematologists (Fig. 24).



Fig. 24. Welcome reception (A): from left to right David Antonio Moreira Cáliz, Lizzete D. Romero, Daine Hernández and Manuel Silva. B: Gala evening.

Attending this congress represented for me the first experience of this type outside my country, and it allowed me to learn a little about the culture and way of life in Antibes, France. It was an enriching experience (Fig. 25).

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

Fig. 25. Monaco's Our Lady Immaculate (St Nicholas) Cathedral (left), Juan-les-Pins (centre), Changing of the guard ceremony on the Palace Square, Monaco (right).

Regarding scientific knowledge (Fig. 26), I learned a lot, especially about molecular tools that are currently being used, for example, omics sciences. I believe that this knowledge will allow me to propose new approaches in my current work, which will allow us to be at the omics forefront. In addition, I learned new methodologies and perspectives for the biological management of phytoparasitic nematodes, which is my current line of research. Likewise, I was able to confirm that in the laboratory where I am working in Mexico, we have all the capacity to venture into searching for natural resistance sources to root-knot nematodes and, with the information I received at the congress, I return home with many proposals and the aim of staying active in Nematology. I also take this opportunity to thank ONTA, the congress organizing committee and Drs Larry Duncan, Julia Meredith, Renato Inserra and Rosa H. Manzanilla-López for sponsorship and making possible my attendance at the 7th International Congress of Nematology.



26. Plenary conferences and oral presentation sessions.

Manuel Silva-Valenzuela
Fitosanidad-Fitopatología, Colegio de Postgraduados (Mexico)

Daine Hernández-Ochandía



Fig. 27. Daine Hernández-Ochandía.

Having the opportunity to attend an event of this magnitude has been an experience that changed my life, all knowledge acquired in the magnificent conferences and presentations offered, the possibility of interacting with

teachers of the Nematology speciality, with those that I only know from their books, and having shared with young Nematologists from different parts of the world. I would also like to highlight the motivating, positive and encouraging work environment that I experienced during all sections. I am very grateful to Local Organizers, Larry Duncan and Rosa Manzanilla-López and ONTA, for the support they offered me to make possible to attend the Congress. Now, back in my country, I am committed to sharing all that knowledge with my colleagues from the National Center for Agricultural Health (CENSA) and other centers in the country. I hope to deepen my nematological studies in Cuba and be able to collaborate with other colleagues on various themes.

Daine Hernández-Ochandía
Centro Nacional de Sanidad Agropecuaria
(CENSA), Cuba

7th ICN HIGHLIGHTS JUAN-LES-PINS (cont.)

Ilia Mariana Escobar Ávila

My experience as an early career nematologist sponsored by the IFNS to attend the Seventh International Congress of Nematology at the Palais des Congrès in Antibes Juan-les-Pins, France, was exceptional (Figs 28-29). I had the opportunity to present some of the results of my ongoing research and exchange experiences and knowledge about nematology' state of the art, with the international community of nematologists. For me, it was a unique opportunity to learn more about nematodes, i.e., I didn't know that nematodes can jump! that was one of the things that impressed me the most. As for my personal experience, it was the first time that I visited France, the people were so nice, although I only spoke English and Spanish, they made an effort to try to understand and help me, the colors at dawn in the ocean of the beach of Juan-les-Pins were amazing. This was one of the best experiences in my professional and personal life.

I would like to thank Dr Larry Duncan, IFNS President; Dr Pierre Abad, 7th ICN Chair, and the ICN Local Arrangements Committee for the support granted to attend the ICN 2022, also to ONTA and Drs Julia Meredith, Renato Inserra and Rosa H. Manzanilla-López. Without the support of whom this experience would not have been possible for me.



Fig. 28. Ilia Mariana at Palais des Congrès (A) and with Sergei Subbotin (B).



Fig. 29. At the Workshop 'Nemaplex and Ninja: Features and Uses'. From left to right: Hugo Mejía-Madrid, Rubén Blanco-Pérez, Miguel Talavera-Rubia, Rosa H. Manzanilla-López and Ilia Mariana Escobar Ávila.

Ilia Mariana Escobar Ávila
Instituto Politécnico Nacional, Mexico

Lizzete Dayana Romero

In The Seventh International Congress of Nematology, I enjoyed all sessions and I shared my research experiences (Figs 30-31) with other researchers. This event was an opportunity to expand my knowledge. Now, I am watching the recording of the oral presentations to take advantage of all the seminars that I could not attend. Thank you so much!



Fig. 31 Top row: Lester Núñez-Rodríguez (Costa Rica/USA); second row (left to right) Anikó Majik (the Netherlands), Lizzete Dayana Romero (China/Colombia), Laura Villegas (Germany), Maria Cassells (Ireland); third row: Luca Eszter (Hungary) and Laura Pettrich (Germany).



Fig. 30. Banquet party. From left to right: Lester Núñez-Rodríguez, Janete Brito and Lizzete Dayana Romero.

Lizzete Dayana Romero (PhD student)
Chinese Academy Of Agricultural Science-
Beijing, China.

MINUTES OF THE ONTA BUSINESS MEETING IN ANTIBES

ONTA Business meeting, Antibes France, 3 May 2022

At 6 pm, ONTA President Martin Augusto Delgado welcomed everyone to the meeting and led the group in a minute of silence to remember and honor our past Vice-President Jose Fabio Chaverri Fonseca and Vivian Block for their contributions to ONTA as well as any of our members who left us in the last two years.

Officer reports were distributed and Martin Augusto Delgado made a motion to accept the officer reports, Janete Brito accepted, and the reports were approved by a majority.

Rosa H. Manzanilla-López of the nomination committee announced the results from the Vice-President Election. There were over 100 votes cast electing Ernesto San-Blas to serve as Vice-President in 2022-23 and President in 2023-24. Tristan Watson will serve as Vice-President in 2023-24 and President in 2024-25.

Proposals to host the 2023 ONTA meeting were received from Egypt, Cuba and Brazil. Faheim El-Borai Kora presented an official invitation from the Egyptian Society of Nematology to host ONTA in Cairo, Egypt, tentatively at the end of September to early October 2023. The location will create an opportunity to attract new members from Africa and the Middle East. Faheim El-Borai Kora offered to organize tour options in Egypt before and after the formal meeting in addition to one day during the meeting. Daine Hernández presented, on behalf of CENSA and Executive Board Member-at-Large Mayra Rodríguez, an official offer from Cuba for May 8-12, 2023 in Varadero, Cuba to coincide with the IV International Seminar on Animal and Plant Health and Mayra Rodriguez' retirement. A third offer from Brazil was proposed to associate the meeting with the Brazilian Nematology Congress. There was an open discussion after which Don Dickson called the question, with a second from Deborah Neher. A majority of attendees voted for Egypt as the location for the 2023 ONTA meeting.

Deborah Neher announced that Past President Edward McGawley was bestowed the Honorary Member Award in 2020, and distributed printed copies of the award program outlining his biography and contributions to ONTA.

Martin Augusto Delgado transferred the ONTA flag to Faheim EL-Borai Kora (Fig. 32) as incoming President of ONTA, and thanked everyone for their service to ONTA over the last two years. Faheim presented the Past President Award to Martin Augusto Delgado, and expressed especial gratitude to Renato Inserra and Julia Meredith for their tireless service as Treasurer and Interim Secretary, respectively, for ONTA. Faheim EL-Borai Kora thanked the Executive Committee and everyone who helped create a successful ICN meeting.

The meeting adjourned at 6:54 pm.

Submitted by Deborah Neher, Acting Secretary



Fig. 32. A: Martín Delgado-Junchaya received the Past President ONTA award from new ONTA President Fahiem El-Borai Kora; B: Left to right: Ernesto San-Blas, Larry Duncan, Patricia Stock, Fahiem El-Borai Kora and Rosa H. Manzanilla-López.

ONTA PAST PRESIDENT REPORT



Fig. 33. Martín Delgado-Junchaya.

25 April 2022

Dear ONTA Executive Committee members,

It is a honor, as ONTA President, to present a summary of the activities coordinated or executed during the period 2020-2021 and part of 2022, which we are finishing. As an introduction, I should only mention the unprecedented conditions faced during the last two years due to the Covid-19 pandemic, which is why it has not been possible for us to hold our annual meetings in 2020 and 2021.

1. The first aspect that I highlight in this final report is the untimely death of our dear colleague Fabio Chaverry Fonseca in October 2021. Fabio always showed integrity, responsibility, dedication and enthusiasm in fulfilling the tasks of the position that he so honorably performed at ONTA as Vice-President (VP). At the time, a note of sympathy was sent to his sister Ms Agnes Chaverry Fonseca on behalf of ONTA, which she replied and made known her appreciation

of such detail to the Executive Committee members.

2. Given this unfortunate event, the Executive Committee of ONTA proceeded to officially appoint VP Fahiem El-Borai Kora as new ONTA President, following election procedures. At this point, we express, once again, our gratitude to Fahiem for his constant support and in preparing the ONTA agenda for the Business Meeting in Antibes.

3. Our secretary Maria Mendes resigned for health reasons. In the face of this circumstance we were fortunate to have the unconditional support of Julia Meredith, who has since assumed the position of secretary and provides invaluable support in all activities related to the Secretary position. Here too, we express our gratitude to Julia for such outstanding work that is reflected in her annual report.

4. Economic aspects of ONTA. At this point is important to highlight the permanent effort made by Renato Inserra, who, with the care and transparency that characterizes him, has managed to present ONTA members accurate annual reports of the economic situation of the Organization, which has suffered an economic loss due to the pandemic, and we send our deepest appreciation to Renato.

5. *Nematropica* always up to date due to efforts deployed by Louise-Marie Dandurand and Inga Zasada, Editors-in-Chief. Another important activity, which has been maintained by our colleague Rosa H. Manzanilla-López, is the publication on time of the ONTA Newsletter.

Finally, our recognition goes to all ONTA Officers for their support to the Organization during these two years of the Covid-19 pandemic.

Respectfully,

Martin A. Delgado Junchaya
ONTA Past President

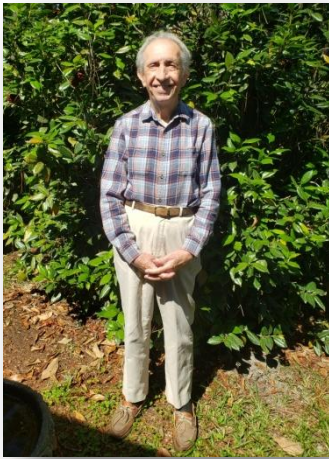


Fig. 34. ONTA Treasurer Renato Inserra.

Gainesville FL, 17 April 2022

Dear Colleagues:

I am submitting, in an attached file, a tabulated account of deposits received, and expenses incurred by ONTA from Jan. 27, 2021, to Apr. 17, 2022. Deposits were divided in different categories including regular and sustaining member dues and other payments related to ONTA activities.

ONTA FL, Inc. is a tax-exempt corporation, which is considered by the state of Florida and the US federal government a charitable 501(c) (3) organization operating for scientific and educational purposes. However, a tax return and a corporation report must be filed each year. I filed electronically the federal returns for 2020 and 2021 and the corporation reports for the state of Florida for 2021 and 2022.

During 2021-2022, ONTA's income increased **\$1,085.83** because the expenses incurred during the 16 months (Jan. 2021-Apr. 2022) covered by this report were drastically reduced compared to those of previous years. No annual meetings were held in this period, and

furthermore, the number of papers submitted for publication in *Nematropica* decreased resulting in a reduction of \$3,055 in the cost for formatting and posting *Nematropica* (\$2,240 for Vol 51, partial 50 and 52 compared to \$5,295 for Vol. 49 and 50).

ONTA members have paid their dues consistently for a total of \$ 4,741.27 with an increase of \$ 1,774 over the \$ 2,967 paid in the previous 19 months of 2019 and 2020. Contributions from Agro Industries were interrupted due to the adverse effect of the COVID pandemic on agricultural activities and because many industries had already committed large contributions to the organizers of the International Congress of Nematology in France, which was postponed from 2020 to 2022. I would like to mention that Prof. Ralf-Udo Ehlers (e-nema GmbH) [Fig. 35] consistently provided his sustaining member contributions of \$500.00 for 2021 and 2022. His generosity is greatly appreciated and commendable.

On September 17, 2021, the payment processing account with the company Elavon was closed because all payments received by ONTA are now processed by the PayPal system and transferred to ONTA account by Julia Meredith. The closure of the account with Elavon saves ONTA the \$70.00/month fee charged by Elavon.

Available funds for the organization amount to **\$40,295.28** compared to **\$39,209.45** in the previous year. No major fluctuations of available funds have occurred.

The efforts of Larry Duncan (website coordinator) in adjusting ONTA's website to receive PayPal payments are greatly appreciated.

REPORT FROM THE ONTA TREASURER (cont.)

Let me thank again the above-mentioned persons for their valuable time, detailed work, dedication, and loyalty to ONTA. ONTA's financial status is solid.

Please contact me anytime if you need more explanation concerning this report.

Respectfully submitted,

Renato Inserra,
ONTA Treasurer

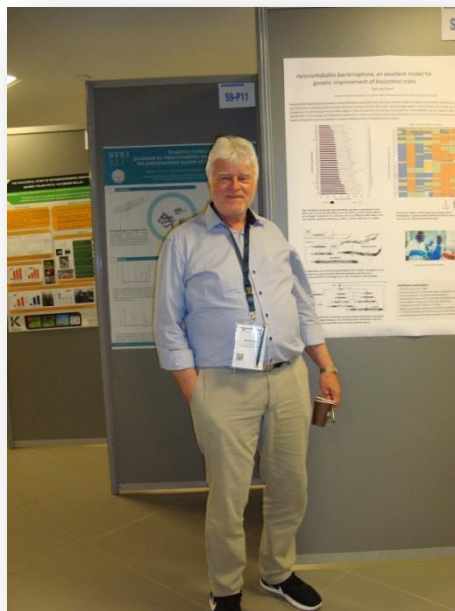


Fig. 35. Prof. Ralf-Udo Ehlers (e-nema GmbH).

VOL 52 ISSUE 1

TABULATED TREASURER'S REPORT	JANUARY 2021-APRIL 2022	AMOUNT
Balance Previous Year, 2019-2020		<u>US\$ 39,209.45</u>
DEPOSITS RECEIVED		
Members dues		US\$ 4,741.27
Sustaining member dues		
e-nema GmbH (Prof. R. Ehlers, 2/16/21; 1/15/2022)		US\$ 1,000.00
Donation		
J. Meredith, 2/20/2022		US\$ 510.00
TOTAL DEPOSITS		<u>US\$ \$ 6,251.27</u>
EXPENSES INCURRED		
Credit card processing fee (Jan.-Aug., 2021)		US\$ 498.82
<i>Nematropica</i>		
Vol. 50 (2) 2020 (Partial)		US\$ 120.00
Vol. 51 (1) 2021		US\$ 965.00
Vol. 51 (2) 2021		US\$ 1,035.00
Vol. 52 (2) 2022 (Partial)		US\$ 120.00
Incorporation fees 2021, 2022		US\$ 122.50
ONTA website modifications		
Andrew Persaud:	US\$ 800.00 (Jul. 2021) + \$140.00 (Feb. 2022)	US\$ 940.00
HostGator plan renewal 2021+ cartridge		US\$ 368.12
Settlement of pending contributions to INC		US\$ 791.00
Transfer donations to ONTA Foundation		US\$ 205.00
TOTAL EXPENSES		<u>US\$ 5,165.44</u>
BALANCE Apr. 17, 2022		<u>US\$ 40,295.28</u>

Balance reflects **\$1,085.83** increase over last year's funds of \$39,209.45.

Renato Inserra

ONTA Treasurer

ONTA SECRETARY REPORT

**ONTA SECRETARY REPORT
(July 2019-April 2022)**

ONTA's elected Secretary, Maria Mendes, who had served since July 2019 and resigned in early 2020 because of health problems accentuated by the pandemic. Julia Meredith agreed to act as Interim Secretary. Deb Neher continued to serve as Listserv Manager for ONTA communications.

During the past three years, ONTA's membership records were maintained, membership payments and other contributions noted, and general correspondence carried out. The Interim Secretary and Listserv Manager worked closely together to update email addresses of members to enable the program to run smoothly. The listserv was used to communicate about meeting updates, especial events, and news about society members. Updated lists of active members were posted to ONTA's Web Directory, and files were sent to Nematropica and Business Manager.

Presently ONTA has 219 members from 34 countries; 136 are in good payment status. From 2019-2022, 58 new members joined ONTA.

Julia Meredith
ONTA Interim Secretary

ONTA LISTSERV REPORT

**ONTA LISTSERV REPORT
(July 2019-April 2022)**

I was in correspondence with the secretary to regularly update the listserv by adding addresses of new members and removing addresses of members that had either deceased or were no longer active. Members of the executive committee and liaisons with other nematology societies would forward updates and announcements for ICN (including abstract and registration deadlines, student competitions, bursaries, and pandemic updates), especial course offerings sponsored by universities, webinars, news and obituaries of deceased members, and miscellaneous especial announcements. Sometimes, it was necessary for me to translate a note into a few sentences to appear as a proper email format, and other times postings required translating file formats that could be easily copied and pasted into the listserv software. For example, PDF files were not compatible whereas Word format was compatible. Picture files were often problematic. It was important to minimize use of file attachments because they generated more bounce-back mail from certain countries. Finally, I spent a day learning Qualtrics software to generate the ballot for Vice-President, sent out reminders to the membership, and kept track of the voting tallies for a month. 97 ballots were received as of 19 April 2022. The final outcome will be reported to the Nominating committee on 25 April 2022 when the voting period ends. I am indebted to my university for offering the listserv platform and Qualtrics software at no cost to the society. The listserv platform has reduced the amount of spam that was generated when I sent communication through my institutional email account.

Deborah ("Deb") Neher
ONTA Listserv Manager

NOMINATIONS COMMITTEE REPORT

Dear Executive Committee Members,

The sanitary regulations implemented worldwide to contain the Covid19 pandemic impeded face to face international conferences for almost two years. As a result, the seventh ICN had to be moved from 2020 to 2022, and no ONTA meeting was held during this period. Because of this situation, in 2020 the Executive Committee agreed that ONTA's President Dr Martin Augusto Delgado Junchaya and Vice-President MSc Jose Fabio Chaverri Fonseca should remain in their position until 2022. Tragically, our dear colleague Jose Fabio passed away on 18 October 2021, and Dr Fahiem El-Borai was appointed ONTA's new Vice-President. In view of such sad circumstances we had to call for an earlier election process in order to elect the two new ONTA Vice-Presidents for the 2022-2023 and 2023-2024 periods. The process was started on 4 February and will be completed on 25 April. Results will be announced before the seventh ICN is held in Antibes Juan-Les-Pins-France (1-6 May 2022).

As part of the Vice-President election process, we received the nomination of five candidates from ONTA members, four of whom accepted to participate. We would like to thank Drs Danny Humphrey (Costa Rica), Ernesto San Blas (Chile), Jesús Anselmo (Mexico) and Tristan T. Watson (USA) for their enthusiastic participation in the pre-selection process. Dr Tristan T. Watson and Ernesto San Blas were the candidates selected by the Nominations Committee to be in the ballots. According to procedures, each candidate sent his biography in both Spanish and English versions, which also included a vision statement for ONTA.

It is worth mentioning that all nominees were also invited to opt for the position of Secretary but declined in favor of the Vice-Presidency. Since then, the list of duties carried out by the Secretary have been revised and updated by Dr Julia Meredith and Dr Renato Inserra. They have prepared a new list of activities to be revised and approved by the Executive Committee. We hope that the changes proposed will help to encourage candidates to apply for the ONTA Secretary position.

Finally, I would like to use the opportunity to thank Dr. Renato Inserra, Dr Julia Meredith and Dr Deb Neher for their support to the Nominations Committee activities, which included preparing and sending the ballots by email to ONTA members.

Respectively submitted,
Rosa H. Manzanilla-López

ONTA MEMBERS NEWS

The Moringa project a fit memorial for Ron Mankau

Saroj Mankau



Fig. 36. Saroj and Ron wedding anniversary (2020).

Soon after Sudan became divided into North and South, we became concerned with the plight of the south, declared "The poorest country in the world" where children are taught under the shade of trees. We were privileged to rebuild The Manuta Bol school, and a preschool for St Joseph school.

The Moringa project was launched as a fit Memorial for Ron (see obituary on p. 38), who was essentially an agricultural scientist, while doing pioneer work in biological control of plant pathogens, also was involved in helping developing countries deal with plant diseases, etc.

I'm immensely pleased to work with such a dedicated and enthusiastic team in

South Sudan (Fig. 37) to help mitigate the serious nutritional deficiencies of the region. A personal note: Moringa tree (*Moringa oleifera*) is a native of India used in our cooking, and that now has been declared a "Miracle Tree", a nutritional giant!



Fig. 37. Tom Prichard distributing seed. Work has started in teaching how to cultivate Moringa and the benefits of adding it to their diet has begun in Rumbek, South Sudan.

All the best,

Saroj
Images of Figs 34 and 35 are courtesy of Saroj.

CONGRATULATIONS!

Dr Aurelio Ciancio, CNR, Istituto per la Protezione Sostenibile delle Piante, Bari, Italy

Congratulations for the successful completion and achievements of the MUSA project

The EU H2020 Project MUSA (Coordinated by Aurelio Ciancio) ended in November 2021. The Consortium (Fig. 36) achieved significant advancements in the sustainable management of banana crops, producing biological resources and data ready to be transferred to stakeholders. The Project focused on the exploitation of endophytes and biocontrol agents vs plant parasitic nematodes, Fusarium wilt (FW caused by *Fusarium oxysporum* f. sp. *cubense*), and black weevil (BW, *Cosmopolites sordidus*). The action was carried out in three world regions the EU (in particular Canary Islands), Central America and sub Saharan Africa.



Fig. 36. MUSA partners (Tenerife, Spain, 2017).

The *Second International Conference with Stakeholders* was organized on line during the last Project period by the University of Alicante (Prof. Luis V. Lopez-Llorca) and EARTH University (Prof. Luis Pocasangre). It aimed at providing stakeholders with innovative management approaches, deploying initiatives in relation to the FW epidemic. The meeting was attended by more than 70 EU and extra-EU interested parties, including organization of producers, national authorities, scientists and representatives of agriculture private sectors and stakeholders.

The Project results include new microbial isolates with biocontrol potential and data from -omic studies. Data also showed the potential of biopolymers (chitosan) or volatile compounds, produced by *P. chlamydosporia* and other entomopathogenic fungi, as BW repellents (patents pending). More than twelve isolates have been selected for exploitation, some of which are already commercialized by participating stakeholders. They include *Trichoderma asperellum*, *Pochonia chlamydosporia* and *Pseudomonas* spp.

CONGRATULATIONS! (cont.)

The EARTH University team, led by Prof. Luis Pocasangre, found in Costa Rica a *T. asperellum* isolate highly effective in the biocontrol of *Radopholus similis*. Many *Pseudomonas* strains were isolated from asymptomatic (healthy) banana plants grown in fields subjected to FW pressure in the Canary Islands, with *in vitro* activities typically associated with a biocontrol capacity. The genome of *P. chlamydosporia* has been re-sequenced and re-annotated. The genome of a symbiotic bacterium, *Variovorax paradoxus*, inhabiting the hyphae of an Italian isolate of *T. asperellum*, was also sequenced. The fungus hosted the bacterium for more than one year, when acting as a persistent endophyte of banana cv 'Grand Naine'.

Gene expression data showed that plants inoculated with *P. chlamydosporia* activate defense genes, contributing to the host protection from nematodes or FW, or allowing an infection delay. Metabarcoding data on the banana microbiota have been produced from soil, rhizosphere or plant tissues, in a range of agroecological and farming conditions. Differences in microbial profiles related to cropping and local climate were identified, as well as changes among the microbiota inhabiting mother plants, suckers or leaf tissues.

Assays with entomopathogenic nematodes carried out by CENSA in Cuba revealed a significant application potential of selected populations of *Heterorhabditis amazonensis* to regulate BW densities and spread. Together with the use of essential oils vs plant parasitic nematodes, these approaches provide sustainable, environment-friendly and low-cost pest management technologies.

The impact of climate change on banana production prices was studied by the University of Exeter team, simulating the mechanisms of transmission to retail prices. Modeling banana production and FW impact also showed key spatial variables responsible for the spread of the disease.

Links and scientific initiatives keep on going well after the Project termination, among and beyond the different teams integrated in Consortium. Project website: <http://www.projectmusa.eu/wp/>

CONGRATULATIONS! (cont.)

Congratulation to Deborah (Deb) Neher on her official appointment as ONTA Listserv Manager and Member of the Executive Committee

Fig. 39. Deb Neher.



For many years and especially during the COVID pandemic, Deb Neher has played a pivotal role in keeping ONTA members informed about ONTA activities and other nematological events by managing the Listserv. Deb, who served as ONTA President in 2018, is commended for her involvement in ONTA activities and maintaining contacts with ONTA members. Her leadership and managerial skills are invaluable assets to our organization. Her dedicated services are greatly appreciated.

Renato Inserra

**In Memoriam Professor Emeritus Reinhold (Ron) Mankau
(1928-2021)**

We are deeply saddened to report that Professor Emeritus Reinhold (Ron) Mankau passed away on Dec. 5, 2021 (Fig. 39). Ron spent most of his career at the Nematology Department of the University of California, Riverside where he was a faculty member for 33 years, and still active for a long time after his retirement. He has been part of a pioneering groups of nematologists that paved the way to nematological research in the 1970s and 1980s, leading and forming many generations of young researchers, worldwide. The main interests and objectives that Ron followed during his long lasting research career mainly involved biological control agents of nematodes, such as fungal and bacterial antagonists, their biology and ecology. Among his achievements it is worth mentioning the study of *Pasteuria penetrans* (at the time identified as a *Bacillus* species), whose follow-up originated a wide number of research activities and studies at the international level.

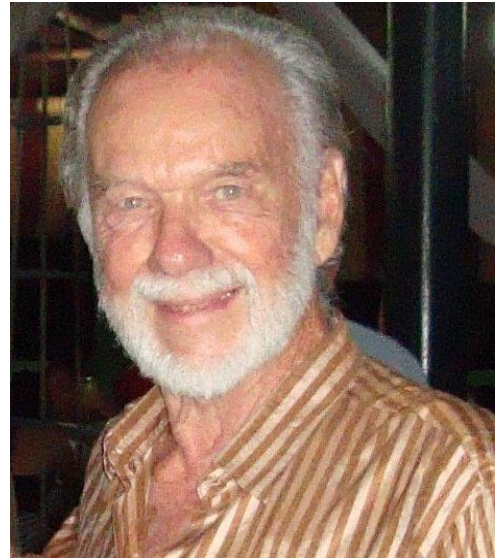


Fig. 39. Reinhold (Ron) Mankau.

His scientific interests also included natural regulation, predatory nematode species, and suppressive soils. Ron has been largely recognized as one of the most outstanding authorities in the field, a result he achieved through a long lasting work led by his innate curiosity, patience and scientific endeavour.

Ron collaborated with many scientists and kept friendly links with the numerous researchers that visited his lab from all over the world. He also visited many research labs in the world, and participated in several international congresses, among which many ONTA meetings. Ron was a real gentleman, a bright scientist and a friendly man, an example for many, whose legacy we all appreciate today, during these difficult days. His character was kind as he was always available for communicating and listening to others' thoughts, always acting as a loyal and outspoken colleague and friend.

Ron has been one of the brightest and kindest persons we ever had the honor to meet in our life, as he gave us so much both on the human and professional levels. We convey our condolences to his beloved wife Saroj and sons, and share with them the sadness of this moment.

Good bye Ron, RIP

Aurelio Ciancio

OBITUARY

Vivian Blok (1956 – 2022)

Vivian Blok passed away peacefully at home on 4 April 2022, following several years treatment for cancer. Vivian (Fig. 40) was a native of Canada and much of her early education was there, graduating in 1980 with a B.Sc. from the University of Waterloo and in 1983 with a M.Sc. from the University of Saskatchewan. She moved to the UK in 1984 and was awarded a Ph.D. from the University of Cambridge in 1988 for her work on RNA polymerases of influenza viruses. After a short postdoctoral position in Cambridge, Vivian moved to Scotland in 1989 to what was then the Scottish Crop Research Institute (now The James Hutton Institute). Vivian worked briefly in the Virology Department on the biology of groundnut rosette virus, before moving to the Nematology team in 1992, where she spent the remainder of her career.



Fig. 40. Vivian Blok.

Vivian's work initially focused on genetic diversity of potato cyst nematodes (PCN;

Globodera rostochiensis and *G. pallida*) and root-knot nematodes (*Meloidogyne* spp.), including development of diagnostic tools, with the longer term goal of using this information to understand virulence/avirulence in order to inform management strategies. This work also led to a better understanding of the patterns of introductions of PCN into the UK and Europe. Part of this work included an examination of the potential use of mtDNA sequences as tools for tracking introductions and understanding population genetics of PCN. This led to the discovery that the mtDNA of PCN is extremely unusual – present as a multipartite circular genome as opposed to the single mtDNA circle present in almost all other animals. Further work uncovered other unusual properties including recombination and paternal contributions to the mtDNA profile. Her work on root-knot nematodes led her into the area of host range in these pathogens.

Vivian was at the forefront of how genomics and transcriptomics resources were developed and used for plant-parasitic nematodes. She and her colleagues generated some of the first expressed sequence tag datasets for plant-parasitic nematodes, something that led to the discovery of pectate lyases in *G. rostochiensis*, the first such gene in any eukaryotic species, a finding published in *Nature*. She also contributed to genome projects for *Meloidogyne incognita*, *G. pallida* and *G. rostochiensis*. More recently Vivian examined the impact of temperature on PCN life cycles with an eye to how predicted climate change might influence the potential for a second generation of PCN in Europe and the implications of this for management. She also worked extensively on resistance to PCN and was a passionate believer that UK breeding programs should be producing more commercially successful varieties with resistance to *G. pallida*.

While Vivian was a hugely productive and accomplished scientist, her main driver

was always to do work that was useful, particularly when such work would bring real improvements to people's lives. On a visit to SASA (Science and Advice for Scottish Agriculture) in the mid-2000s Vivian became concerned about the wellbeing of the team at SASA tasked with screening soil samples for the presence of PCN cysts, as they were involved in the arduous and repetitive process of examining samples under the microscope for the majority of each and every year. Furthermore, new EU legislation would require a huge scaling up of the samples processed in Scotland, and recruiting new staff for this work was not a realistic option. Vivian therefore worked with colleagues in SASA to develop and validate a PCR diagnostic for *G. rostochiensis* and *G. pallida* that would allow microscopical examination of samples and diagnosis of PCN to be replaced with a molecular tool. The new process also provides a valuable resource of DNA collected from field populations. More recently, much of Vivian's energy was directed at ensuring that resistance to *G. pallida* was a primary target for potato breeding programs, particularly at The James Hutton Institute.

Vivian derived huge enjoyment from working with colleagues all around the world. She was a partner in many excellent international scientific projects, starting in the 1990s with a series of EU funded projects. Most recently she derived huge enjoyment from being part of the GLOBAL initiative, led by colleagues in Idaho and established following the discovery of a *G. pallida* infestation in that state. These projects allowed her to develop enduring and deep

friendships with people across the world. She enjoyed the opportunities for travel that such collaborations bring and was always keen to experience the different cultures of the countries she visited. Travel also provided the opportunity for her to experience a wide range of artistic work, whether live theatre or music, painting or sculpture. Vivian hosted many visitors and went on many memorable road trips with these. Many of the students and visitors based in the Nematology lab at Hutton will have fond memories of being taken out for day trips to see some of Scotland during their visits – trips to the Isle of May in puffin season were a particular favourite. We will miss her keen intellect and her enthusiasm for life.

Vivian is survived by two sons, Rowan and Linden, to whom condolences are extended.

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(2022)

OBITUARY

Clara Santos (1968–2022)

Fig. 41. Clara Santos (Courtesy Sofia Costa).

Dr Clara Vieira dos Santos (Fig. 41) passed away on the 26th of April 2022 at the age of 54. She began her research career in the late 1990s, working in the Nematology Laboratory of the University of Coimbra, Portugal, then led by Prof. Susana Santos, and continued doing research in Nematology up to about two weeks before she died. Rather than making her final months all about fighting cancer, she made a point of continuing business as usual as much as she could, and was out sampling, designing and conducting laboratory assays and supervising students during late 2021. She combined an immense dedication to her work and tirelessness, with wit and a great sense of humor that was hugely beneficial to her working environment, and will be sorely missed.

Clara was an all-round nematologist, mastering a range of techniques and skills, gathering a wide knowledge of several topics on host-nematode interactions, biological control, and plant-parasitic nematode diagnostics. She interacted and established collaborations with several research groups in Portugal and abroad, and her untimely death took many by surprise. Clara developed most of her career in the Coimbra group, obtaining her MSc (2002) and PhD (2013) under the supervision of Prof. Isabel Abrantes. For her PhD, she worked under the co-supervision of Prof. Brian R. Kerry and then of Dr. Rosane Curtis in Rothamsted Research, UK. She joined the Nematology group at the University of Minho, Braga, Portugal, in 2018 to work with her long-time collaborators Prof. Teresa Almeida and Dr Sofia Costa, and quickly made this her home, with her great team-working skills, creativity and enthusiasm increasing research outputs and inspiring students. She engaged the whole group in contributing to science dissemination, and one of her last achievements was being awarded the best outreach activity at the 2021 European Researchers' Night in Braga for the work titled 'The Importance of Being Nematode'.

Clara's contributions to Nematology will persist through her published work and through research ideas she discussed with us and our students. For those of us who knew her, Clara has set a fine example of generosity, integrity and kindness that will not be forgotten.

Sofia Costa

NEW BOOKS

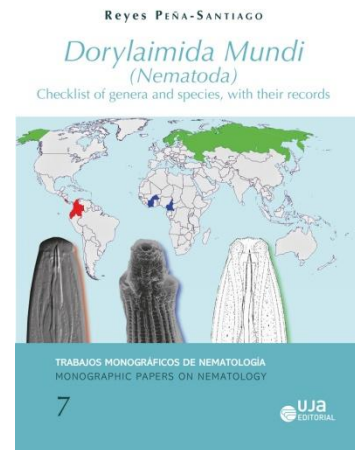
REYES PEÑA-SANTIAGO. *Dorylaimida Mundi (Nematoda): Checklist of genera and species, with their records*. Monographic Papers on Nematology 7. Jaén, Spain, UJA Editorial, 2021. xvi + 957 pp. ISBN: 978-849159456-7. Price: €95.00

The dorylaims form one of the most important nematode groups in the soil, being highly speciose with more than 3400 nominal species (3088 are regarded as valid in the current work) and 363 nominal genera, 285 being regarded as valid. Dorylaims display high diversity in their morphology, behaviour and ecology and are found in abundance in most soils around the world. As such, members of the group have particular potential as biological/environmental indicators in soil ecology studies. Being such a large and diverse group, the literature is often difficult to locate and access, this volume being designed to address that problem within the confines of its covers.

As might be expected, given the stated intention, this is a large tome weighing in at around 960 pages (Fig. 42). It provides a compendium of the available information (to the end of 2020) on dorylaim taxa together with their references. The book is divided into four sections: *i) List of genera and species, with their records* – comprising a catalogue of the currently recognised taxa with their synonyms and reference citations; *ii) References*; *iii) List of genera* – an alphabetical list of taxa at the generic and subgeneric levels, together with their synonyms; and *iv) List of species* – an alphabetical list of valid species names and their synonyms. As one would expect, the first section, at 664 pages, forms the majority of the 957 pages of the book; the References take up the next 172 pages, and the taxa indexes the remainder with the *List of genera* occupying ten pages and the *List of species*, some 108 pages. Valid taxa are clearly indicated in bold font.

The layout of the book is very clear and unambiguous. In the first section, for example, each genus heading is centred with its authority and taxonomic citations listed underneath as author, date and source (but, to save space, no title) together with indications in square brackets as to the scope of the reference, such as ‘Taxonomy’, ‘Compendium’, *etc.* The list of valid species then follows, the left-margined epithets in bold font followed by the complete authority. Junior synonyms, when appropriate, are listed below each name and fully sourced as per the genus heading. The Principle of Coordination is followed. An asterisk before a reference indicates that no taxonomic/morphological information but only distribution data are cited, whereas a question mark indicates that the recorded identity of the taxon in the reference may not be correct.

As to production, the book is hard bound and printed on a nice quality paper. To my (old) eyes the font is rather small and perhaps a trifle ‘spidery’ in appearance; for some reason the letter ‘t’ does not extend above the other letters in the Roman-style font text (letters such as ‘f’, ‘b’, ‘d’, and ‘l’ do...), although it does so in the even smaller, but rather pleasing, italic font. Use of larger fonts throughout would probably have necessitated a 2-volume approach, so I can well understand the production decision – the book is designed for information retrieval, not bedtime reading. Even so, this is one book where an electronic version would be a very definite advantage.



So, does the author succeed in his aim? Yes, indeed he does. The text should prove to be of inestimable value to both the dorylaim researcher and others interested in this group and represents a distillation of a lifetime's study and profound knowledge of this large and important group of soil animals. Reyes Peña-Santiago is to be congratulated for his care and attention in compiling such a taxonomic lexicon of the Dorylaimida.

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ONTA AGENDA

SON 60th Annual Meeting 2021



Fig. 43. Anchorage, Alaska (USA)

- The 61st Annual Meeting of the Society of nematologists meeting will be held in Anchorage, Alaska (Fig. 43) at the [Marriott Downtown Anchorage](#) (820 W 7th Ave) from September 26-29, 2022. The venue is ideal for visiting downtown businesses, restaurants, and bars. Room rates have been negotiated and are available to book until August 25th, 2022. More information about the meeting can be found at https://nematologists.org/2022_ALASKA

Pat Donald sends to ONTA members an invitation to attend 61st SON Annual Meeting 2022



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. 44); 2) credit card, same information required as for membership



Fig. 44. Janete Brito

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UPDATING

Dear ONTA Member,

A list of active members with their e-mail addresses and countries has been posted on the ONTA website (<http://www.ontaweb.org/onta-membership-directory/>). Please verify your membership status on the posted list. Contact Julia Meredith (jmeredith@cox.net) if your membership status is not updated.

Thanks,

Julia Meredith
ONTA Acting Secretary



Fig. 45. Julia Meredith.

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. 46. Rosa H. Manzanilla-López.

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The ONTA Newsletter editor would like to thank all ONTA Newsletter contributors for sending and sharing information and images through January-May 2022.

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