



# Nematology Newsletter

*An Official Publication of the Society of Nematologists*

**Sept. 2021, Vol. 67, Issue 3**

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## FROM THE PRESIDENT

Thank you, Society of Nematology members, for joining us at Gulf Shores, AL for SON 2021. We enjoyed all the open-air spaces, the amazing southern cooking, and the comradery of our fellow Nematologists! It was a joy to host you all for our annual meeting! As Ernie Bernard told us during his Resolutions, SON meetings become more significant to each of us as we attend SON throughout our careers. That is so true! I wish I had recorded the “Words of Wisdom” session so we could share the enthusiasm and encouragement John Halbrendt, Jim Starr, Steve Thomas, Joe Noling, and Don Dickson, shared with us. Many of us had tears in our eyes as Don Dickson express his love and enjoyment of his career. The collaborations we foster at SON have helped us all throughout our career paths. The group advised us to work with productive positive colleagues, be patient because research takes time, their major professor and post doc advisors were instrumental in helping them build their careers, and positions

will open but there are periods of time without any job announcements. All our retired Professors of Nematology said they would do it all over again; they enjoyed their careers and wish you all the best as you build yours! It was heartening to see our nematology friends again! Thank you all for joining us.



## Society Meeting Update

Thank you to Billy Crow and Deepak Haarith for their effective leadership making the first virtual video poster session for us this year. Greg Tylka and awards committee, thank you for the excellent job of implementing the longest ever graduate student paper contest. Thirty-two graduate students competed in 15 and 3-minute competitions and the talks were outstanding. Congratulations to J. Parr McQueen

and Dong-gyu Kim for winning 1st and 2<sup>nd</sup> place, respectively, in the 15-minute graduate student paper presentations, well done! We also congratulate the 3-minute graduate student paper presentation winners, Scott Anderson with 1<sup>st</sup> place and A. Kate Turner with 2<sup>nd</sup> place. Most of all, thank you to all the graduate students who participated in the event!

Byron Adam and the Cobb board, thank you for honoring Catherine Wram with the Webster award. Catherine's presentation told us of her work on the efficacy and mode of activity of new nematicides by observing gene expression in several genera of plant parasitic nematodes. Congratulations to the Cobb Foundation Video Contest winners, which are up on the web site for everyone to enjoy.

Byron also thank you for organizing the first on-line silent auction to support the Cobb foundation! It was a success and increased funding for the travel awards given to graduate students each year. This year was our first scavenger hunt, designed to encourage students to meet SON members and network with them as they collected their clues. This year Michelle Soule and Prativa Chhetri won the SON t-shirts! Congratulations! Other fellow Nematologists that used our social media platforms to highlight our events and achievements were Parr McQueen from the University of Florida and Ekta Ojha from North Dakota State University. I was told they posted a picture presenting their poster at the Wine and Cheese poster session and it was the most liked tweet! Zane Grabau and Billy Crow, professors from the University of Florida have posted our activities on Twitter and Instagram and have created a following! Thank you!

### **Executive Board Update**

We would like to thank Andrea Skantar for her leadership throughout this unprecedented year. We welcome Axel Elling

to the office of President elect, Inga Zasada to Vice President, Cynthia Gleason as our new secretary, and board member liaison, Jason Bond. Cynthia and Jason are replacing Brent Sipes and Tesfa Mengistu, respectively. Thank you, Brent and Tesfa for your service!

Thanks to the hard work of our Editor-in-Chief, Ralf Sommer, the editorial staff, and Exeley. Our Journal of Nematology published over 100 articles this calendar year. We are working on a Table of Contents, which we hope to have on our web page this year. Our impact factor is staying consistent. The increased number of publications has increased the cost of our journal, which is not financially sustainable, so we have instituted publication charges in 2021.

### **Membership**

Please review your membership information on the SON web page. <https://nematologists.org/> Log in and update your directory information please. Many of our members are graduate students and post docs and this membership directory is our best way to keep up with your moves as you advance your career! Those SON members retiring, please update your contact information. We do like to keep in contact with you. As Nematologists retire, please request Emeritus status. This type of membership does not require payment of annual dues. SON presents Fellow of the Society to outstanding Nematologists. The number of Fellows that are elected is 0.4% of the SON membership. Converting to Emeritus Member status after your retirement will allow us to honor more Nematologists.

It was wonderful to see all those that were able to travel in person at Gulf Shores, AL this SON 2021. Please contact me if you have any suggestions for SON this year!

Kathy Lawrence, SON President

# Society of Nematologist

## Annual Meeting, Gulf Shores, Alabama

### September 15, 2021

The Annual Business Meeting of the Society was called to order at 3:31 PM by President Elect K. Lawrence. President Elect Lawrence served as the presiding officer in the absence of President A. Skantar.

B. Sipes was appointed Parliamentarian by President Elect Lawrence.

Agenda was accepted unanimously

The minutes of the 2020 Annual Business Meeting were approved.

**Passing of Members and other Nematologists:** The passing of Drs. Seymour Dean van Gundy, Minoru Ichinohe, Ahmed Gamal Al-Sharif, Hassan Mojtahedi, Fred Gommers, Ulrich Zunk, and Father Richard Timm were noted and a moment of silence was observed.

**Meeting Dedication:** The 2021 Annual Meeting was dedicated to Drs. Smart and Van Gundy.

#### Officer Reports

**Executive Board:** The annual reports of the Officers, other members of the Executive

Board, except for the Treasurer and Editor-in-Chief, were submitted as written reports and appended to these minutes.

**Treasurer:** The finances of the Society are in good order and stable.

**Journal of Nematology Editor-in-Chief:** The Editor and Executive Board are considering renegotiation of the publishing contract with Exeley. The journal's ranking is relatively stable and place *Journal of Nematology* as a leading journal in the discipline. MDPI is a competitor because of fast publication time and open access. Cost of the journal is contracted for 48 manuscripts yet we

published closer to 120 manuscripts which resulted in an additional costs. An article processing charge was implemented in April (\$200 for members, \$400 for nonmembers). The Editorial Board has several members rotating off, so several new members are being invited.

#### Other Reports

**N. A. Cobb Foundation:** The financial status of the Foundation is good (\$221,000 in assets). The Foundation is committed to honoring ICN awards from 2020. This year travel awards were made for travel to the 2021 annual meeting, for a video contest, and for the Webster Award. The Cobb Board is considering multiple new initiatives including membership sponsorship and a project incorporating art into nematology.

**Archives:** Archival materials are being categorized and sorted.

#### Standing Committee Reports

**Education:** Authors for book chapters are being solicited. Colored nematode posters will soon be offered for sale with all profits directed towards the N.A. Cobb Foundation.

**EPN:** A symposium is being planned for the 2022 meeting.

**Extension:** A good discussion took place. The committee would like to have information posted on society web page.

**Graduate Student:** Many of the former members have graduated so new members were solicited.

**Honors and Awards:** Many students wanted to participate in the paper competition, but space was limited.

**Industry:** Membership has been solidified and an updated list will be provided. The committee sponsored a Q&A with students and wants to foster a pipeline into industry. The committee seeks to sponsor a symposium at the 2022 meeting and would like a student industry social incorporated into the 2022 meeting. Several ideas to improve these events were generated in the com-

mittee.

**Long Range Planning:** The committee is working on multiple fronts.

**Meeting Site Selection:** The annual meeting will be held in Alaska in 2022. Bids for the 2023 meeting are welcomed. A meeting in Utah is possible for 2024.

**Resistance:** A symposium was organized this year.

**Regulatory:** The committee would like to organize a workshop at the 2022 meeting. A written update will be provided.

**Systematics:** Potential new members were named for the committee. The committee discussed orphan collections and means to address this. The committee would like to organize a symposium touching on alpha taxonomy and molecular biology at the 2022 meeting. The committee may develop a white paper on the orphan collection issue.

## Old Business

**IFNS - ICN:** The congress scheduled for 2020 has been rescheduled for May 2022. A decision if postponement until 2023 will be made in a couple of months.

**Constitutional Changes:** Procedural changes introduced at the 2020 annual meeting and published in the *Nematology Newsletter* were presented for a vote. The first change is to Article I Section 3 through 5.

*B. Crow moved and T. Fraske seconded to accept the proposed “30 day” changes. The motion passed unanimously.*

The second change is in Article IX Section 4 and requires an advisory vote for amendments to move forward for a vote by the membership.

*B. Crow moved and G. Tylka seconded. Discussion was held and a slight change in wording was proposed. A deletion of*

*(or the Secretary... to (the Secretary ....was suggested and adopted without objection. The vote on the main motion was called and the motion passed unanimously.*

## New Business

**Recognition of support for 60th Annual Meeting:** Thanks were given to industry sponsors Cortiva, Bayer, and Cotton Incorporated.

**Upcoming Annual Meetings:** The 2022 meeting will be held in Anchorage, AK in late September.

**2021 Annual Meeting:** Thanks from the floor were given to K. Lawrence and the local arrangement committees.

**Recognition of Service:** Officers S. Stetina and B. Sipes and Executive Board Member T. Mengistu have completed their terms of service and will rotate off the Executive Board. All were thanked for their service to the Society. J. Beacham was thanked for her efforts running the business of the Society.

**Installation of New Officers:** A. Skantar rotates to Past President. K. Lawrence becomes President. A. Elling becomes President Elect and I. Zazada becomes Vice President. C. Gleason becomes the new Secretary serving a 3-year term. D. Haarith will commence as Nematology Newsletter in January 2022. The new Executive Member will be J. Bond who will serve a 3-year term.

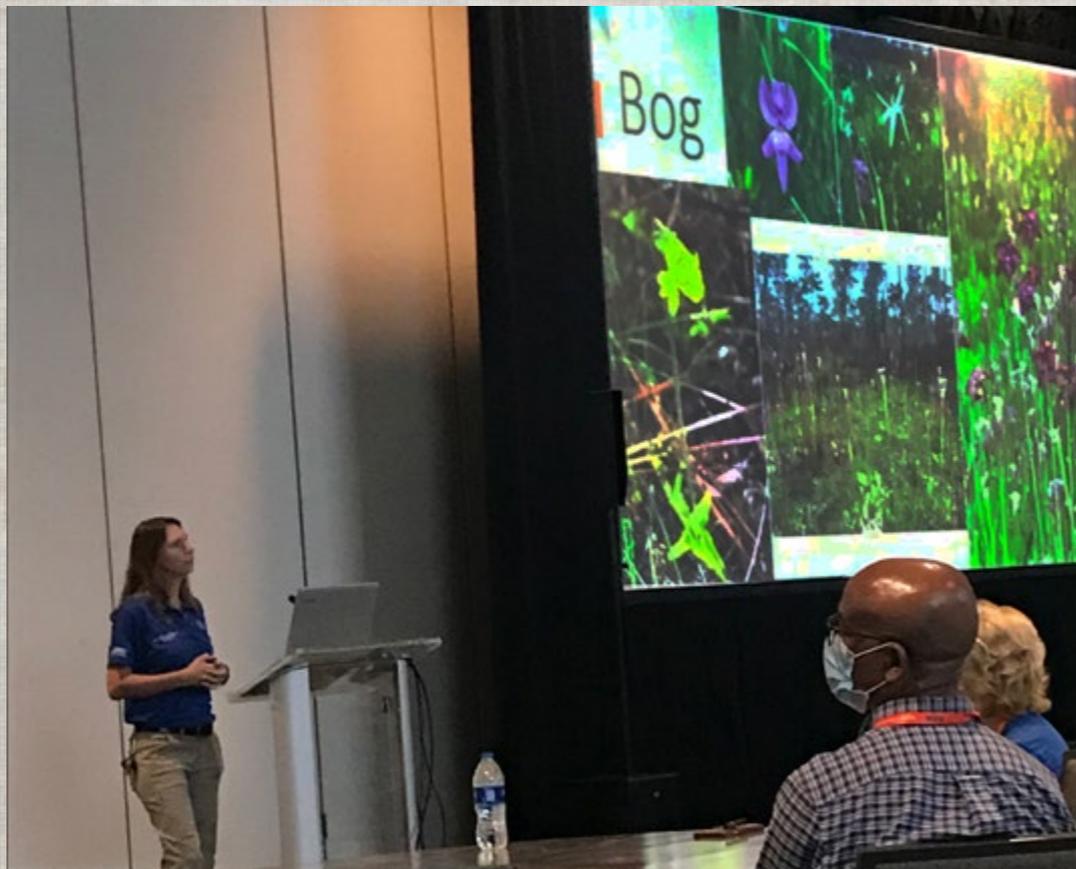
Having completed business, the meeting was adjourned at 4:40 PM.

Respectfully submitted,

Brent Sipes



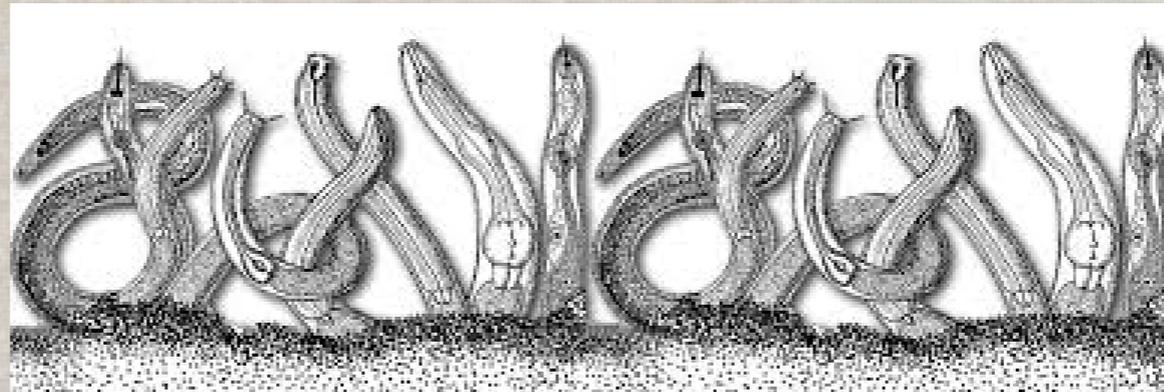
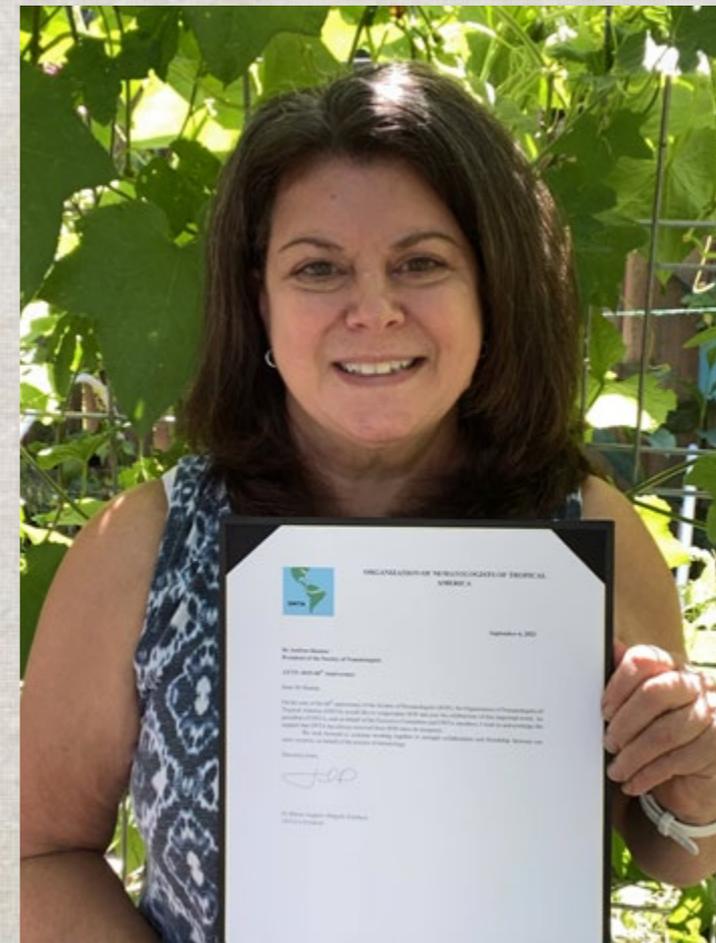
# Society of Nematology, 60th Annual Meeting Held at Gulf State Park, Alabama September 12-15, 2021 Opening Session



**Society of Nematology 60th Annual Conference  
Gulf State Park, Alabama September 12-15, 2021  
Group Photo**



# Congratulations Dr. Andrea Skantar



# AWARDS, COBB BOWL AND BANQUET







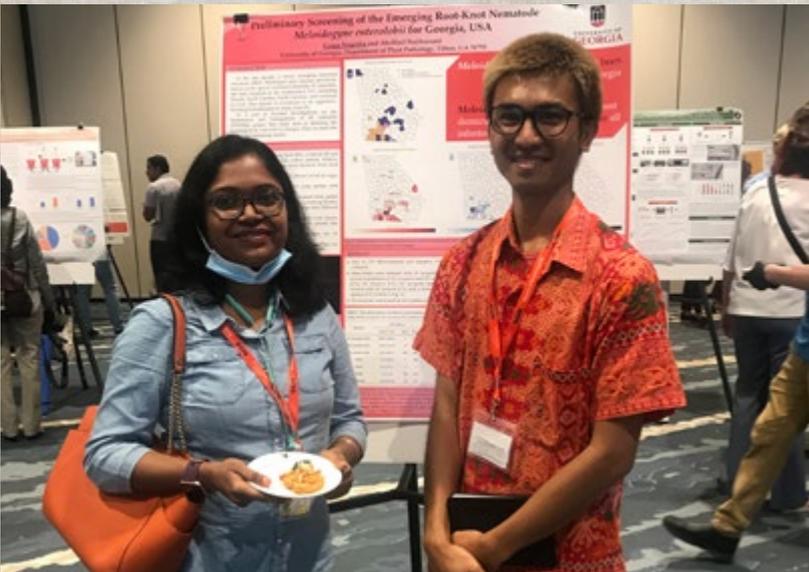
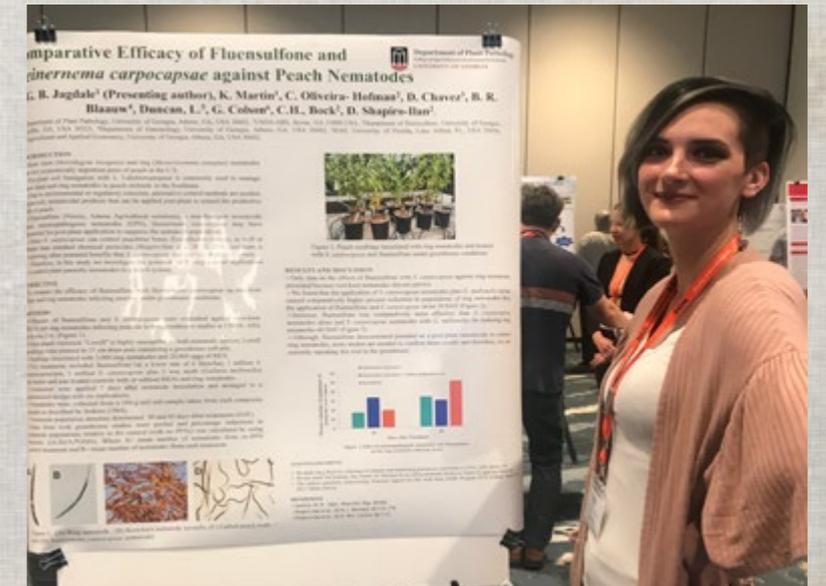
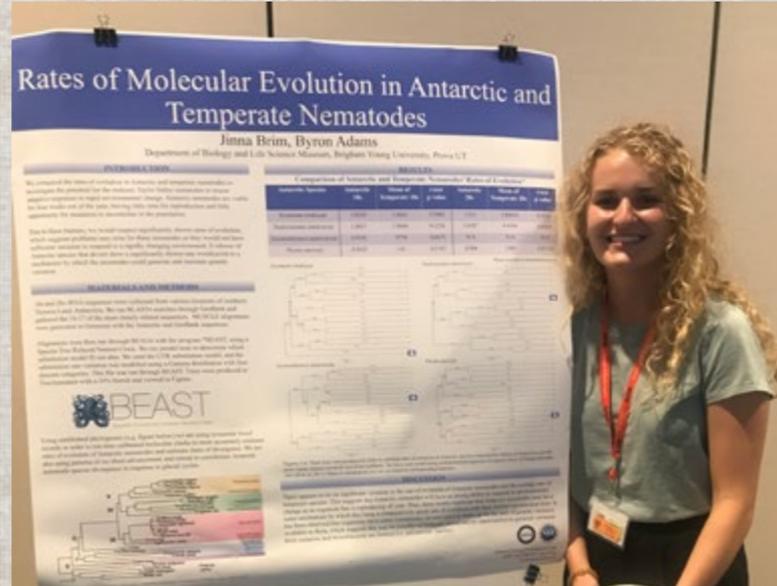
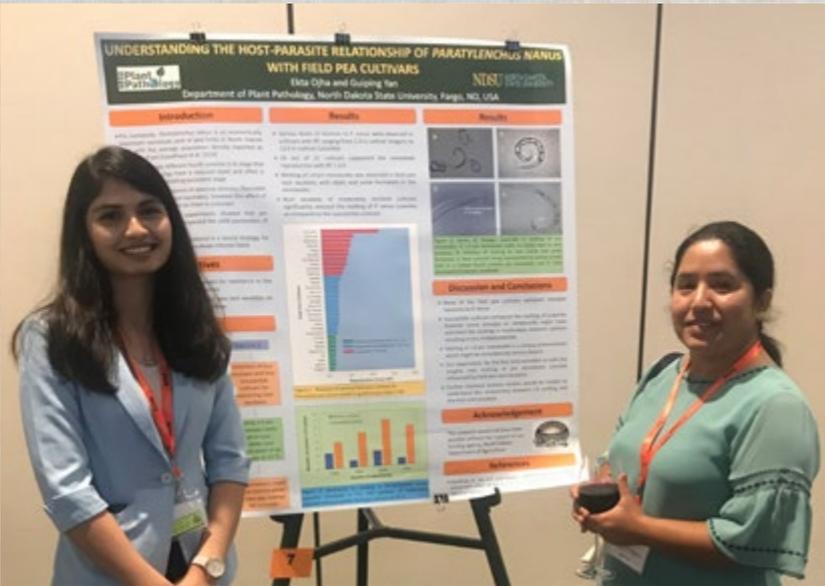
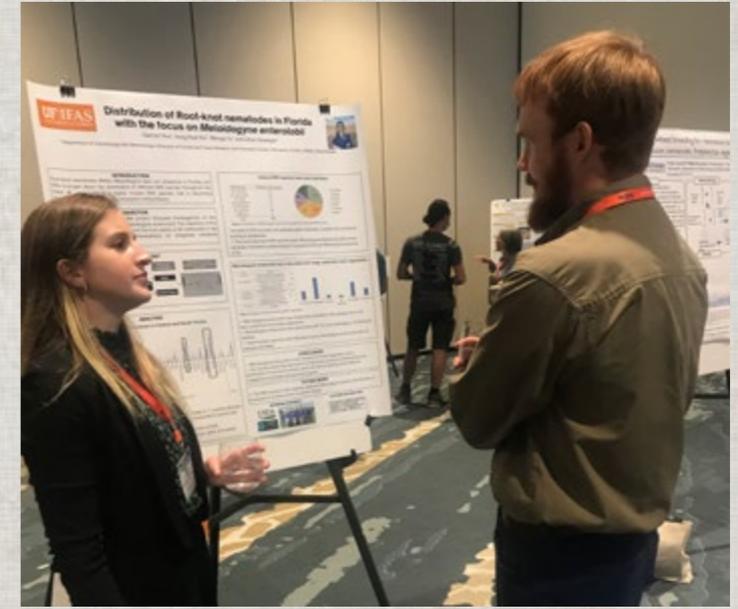




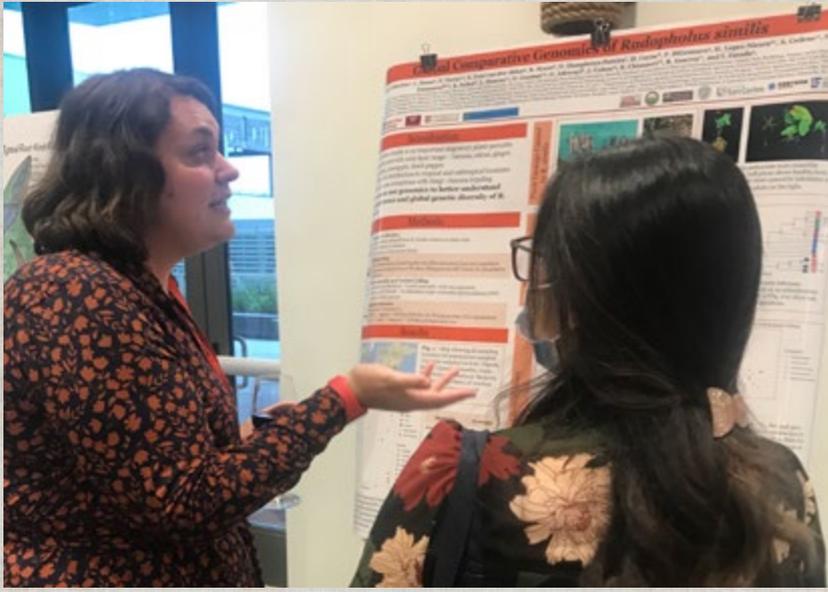




# SON POSTER SESSION













## Resolutions Read at the 60<sup>th</sup> Annual Meeting of the Society of Nematologists, September 15, 2021

Good evening, everyone ---

When Cathy asked me to do the Resolutions once again, I asked what about Inga Zasada (“USDA can’t travel”) or Russ Ingham (“not coming”). So what about Hurricane Larry? (“We won’t have a hurricane, we already had one a couple years ago!”). So I said OK.



Before starting on the resolutions proper, we wish to give a big salute to Andrea Skantar, who heroically brought together the 59th SON Annual Meeting online. I was an invited speaker at a large international conference in early August, and I can attest that Andrea did a far better job for than the high-powered organizers did for that meeting!

Well, the meeting got off to a great start with an excellent Monday morning program! Kelly Rietz, Gulf State Park (GSP) Natural Resource and District Planner/District Naturalist, gave us a wonderful review of GSP flora and fauna, noting especially the rare plants and animals that can be found there, some of them just a short walk from the headquarters hotel. I was excited to see a blooming swamp rosemallow, which ordinarily finishes up by August. The Park is home to a variety of snakes, including venomous species, even pygmy rattlers. She gave us some valuable information on separating harmless and venomous snakes: stare deeply into their eyes. I’m sure snakes are tolerant of that because they like to be admired just before they sink their fangs into your lip.

Will Ballentine’s presentation followed. He is a PhD student and marine biologist at the Dauphin Island Sea lab. Will gave a fascinating talk on inshore benthic microfauna as well as an intriguing history of shifting sandbars that open or close harbors and inlets. Some of his most interesting work is on the differences in organisms between muddy and sandy

substrates. Three takeaways: 1) These marine annelids, kinorhynchs and weird crustaceans make me want to go back to school and learn more; 2) Will’s fantastic micro-video techniques could be adapted to study terrestrial nematode behavior and niches – after all, nematodes are aquatic organisms; 3) Don’t take a job as a lighthouse keeper around there; even newly constructed lighthouses can be washed away when their sand foundation erodes.

The poster session on Tuesday was fun! The only problem was, silly me, I forgot that 3 × 3 feet in Tennessee means 30 × 40 inches in Alabama.

One other odd note, my dear friend and mentor George Bird gave a nice talk on the SCN Coalition. Toward the end he pointed out that it takes a lot of money to operate the Coalition, and several people at the front table actually reached into their pockets looking for spare change!

This is a good spot to mention that after close observation of the various social gatherings (Sunday reception, poster session, banquet and a couple others), SON should change its logo to a corkscrew.

Before I get to some actual Whereases, we must recognize the Words of Wisdom panel, five living foss—uh, legends who spoke from the heart about their distinguished careers, each one very different and yet all converging to the same place in the Society of Nematologists, this guild of scientists dedicated to illumination of the vast diversity, behavior and importance of the Phylum Nematoda. The five? Don Dickson, Joe Noling, Steve Thomas, Jim Starr and John Halbrendt. What an honor it was to hear what they had to say!

It caused me to think more deeply about the nearly 200 cumulative years these five colleagues put into our science, and to ponder the years and centuries since nematodes were first recognized, and that unwound to get us to the present. So, currently or recently are luminaries such as David Bird and Alan Bird, David Chitwood and Benjamin G. Chitwood, Diana Wall, Tom Bongers, Etienne Geraert, Jim Baldwin, Roland Perry, Howard Ferris, Natsumi Kanzaki, Dennis Coyne, Oleksandr Holovachov, Wilfrida Decraemer, M.R. Siddiqi, M.S. Jairajpuri, George Poinar, Jr., Hedwig Hirschmann, Gergor Yeates, Istvan Andrassy, Michel Luc, Theo Olthof, Brian Kerry, J.W. Seinhorst, P.A.A. Loof, Esther van den Berg, Joe Sasser, Eli Cohn, Sidney Brenner, Joe Good – and back further to

Gotthold Steiner, Al Taylor, Virginia Ferris, Jesse R. Christie, Mary Franklin, I.N. Filipjev, Nathan Augustus Cobb, Joseph Leidy, Charles H. Bastian,, Johannes G. deMan, Kati Marcinowski, the Great Nematology Year of 1889, Julius Kühn, Turbeyvill Needham...these are just some of the giants whose shoulders we stand on.

Now think about this: back before writing, before history...the first effective remedy against an infectious agent of humans. We cannot know the event but we can image it in our minds. Some Neolithic someone had a friend or family member or clan member with a skinny little serpent hanging out of a hole in his or her leg. For eons this was a common occurrence and just one of those things. But that someone, a woman, a man, maybe even a kid, had a startling, instantaneous remembrance of once using a forked stick to pry a beetle grub out of a log, or to wind vine or fibers to make them easier to carry from the field, and made the leap to using a forked stick to wind up the serpent until it was out of the body. That burst of genius from this unknown woman, or man, or maybe even a kid, led to the only effective way to cure a person of Guinea worm. The spread of this treatment inspired the ancestors of the ancient Greeks to recognize a god of medicine, Asclepius, whose symbol was a wooden rod with a serpent wrapped around it; and which today is the universally recognized symbol of the medical profession. In a tangible way, everyone in this room is heir to that one person, so long ago, who relieved the suffering of a fellow being.

That brings us back to our current guild, represented here tonight at this memorable banquet.

WHEREAS, even with a pandemic, hurricane threats and other problems all around us, the Society of Nematologists held a highly successful 60th Annual Meeting in beautiful Gulf Shores, Alabama, September 12–15, 2021; and

WHEREAS, Cathy Lawrence, Program Chair, developed an outstanding schedule that was the perfect balance of paper sessions, social gatherings and relaxation; and

WHEREAS, despite all the trials and tribulations of the current times,

Cathy Lawrence , Local Arrangements Chair, as well (!), the luckiest person in the world, squeezed this excellent meeting in between hurricanes and flash flood warnings; and

WHEREAS, the rain failed to dampen our spirits due to the camaraderie of friends old and new; and

WHEREAS, Cathy's dedicated Local Arrangements team, composed of Pat Donald, Kate Turner, Gary Lawrence, Bisho Lawaju and Marina Rondon, was always available and immensely helpful to our members; and

WHEREAS, we thank our dynamic business manager. Jacki Beacham, for all of her contributions to making this meeting successful; and

WHEREAS, the 40-plus students enlivened and enlightened the meeting with excellent presentations and posters, reassuring everyone that the future of nematology will be bright;

BE IT RESOLVED, that the Society of Nematologists 60th Annual Meeting has been a splendid scientific success due to the contributions of every participant. Best wishes and safe travel. Respectfully Submitted



## Introducing Kimberly Whitlock, M.Sc. Amalgamated Sugar, Nyssa, Oregon



Kimberly Whitlock is a first-generation college student who earned her bachelors degree 25 years after graduating high school and her masters degree two years later under the guidance of Dr. Ernest C. Bernard at The University of Tennessee, Knoxville.

Her scientific fire was ignited when she began raising earthworms for composting

in 2003. What started out as a hobby quickly turned into a passion, and Kimberly decided to pursue her dream and graduate college. Her intention was to teach children (and adults) about earthworms and their many benefits to the environment.

Kimberly returned to her hometown of Knoxville, TN, and enrolled as a non-traditional student at UTK. She earned her bachelor's degree in plant sciences while working with Dr. Dean Kopsell in his Phytopathology laboratory.

The more Kimberly learned, the more she wanted to learn, and she knew that an undergraduate degree would not satisfy that desire. She enrolled as a master's student in the Department of Entomology and Plant Pathology in January 2013 to study genetic diversity and geographic distribution of *Bakernema inaequale*, a plant-par-



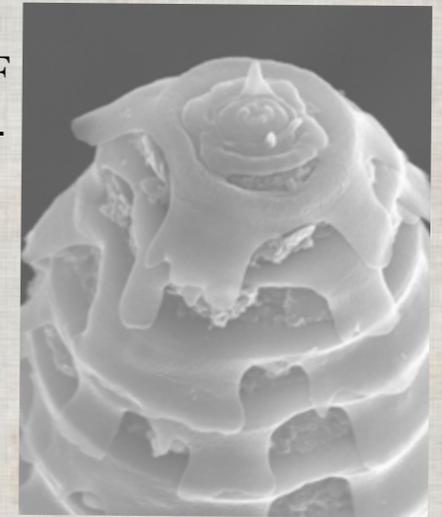
asitic nematode in the Criconematidae family. This research was funded by NSF and was a joint venture with The University of Nebraska, Lincoln.

Upon joining EPP, Kimberly brought in earthworm cocoons to view under a dissecting microscope. Interestingly, over 98% of her earthworm cocoons contained free-living nematodes (family Rhabditidae) instead of earthworms.

Upon further investigation, she noticed that many adult nematodes had a fungus growing throughout their digestive system that had never been found in a free-living nematode. She told Dr. Bernard that this will be her PhD project one day, so if anyone is interested in offering an assistantship....

Kimberly presented her work from both research projects at international symposia, 6<sup>th</sup> ICN and 10<sup>th</sup> ISEE, in 2014.

Kimberly moved to southwestern Idaho in 2020 to study Sugar Beet Cyst Nematode (SBCN, *Heterodera schactii*) with Amalgamated Sugar Company as a part of their SBQI (Sugar Beet Quality Improvement) team. SBQI has numerous research plots throughout southern Idaho and southeastern Oregon, as well as a greenhouse/insectary located in Nyssa, Oregon, where Kimberly is stationed.



## In Memoriam

### Dr. Hedwig Hirschmann Triantaphyllou

Jan. 16, 1927 – Sept. 22, 2021

Plant Nematode Taxonomist and Morphologist

Submitted by J. D. Eisenback, J. G. Baldwin, and K. R. Barker



received the Research Award of Sigma Xi, The Scientific Research Society, and was named a fellow of the Society of Nematologists in 1981. The American Phytopathological Society selected her for the Ruth Allen Award in 1993. Although, Dr. Hirschmann retired from the Department of Plant Pathology in 1992, she continued her research on the morphology and taxonomy of the root-knot nematodes for several more years. As a world-renowned research scientist and educator, she contributed immensely to nematology, plant pathology, genetics, biology, and agriculture over a period of more than forty years. In her private life she and Tasso enjoyed sailing and making music; Hedwig played the piano, usually accompanying Tasso on the mandolin.

Dr. Hedwig Hirschmann Triantaphyllou, 94, former Professor of Nematology at North Carolina State University, passed away on September 22, 2021 in Raleigh, NC. She was born in Germany, the daughter of the late Frederick and Ferdinandine Hirschmann. She was wife of the late Dr. Anastasios C. “Tasso” Triantaphyllou and mother of Chris Triantaphyllou of Raleigh, North Carolina. Dr. Hirschmann Triantaphyllou was laid to rest beside her husband at the Raleigh Memorial Park Mausoleum.

Dr. Hirschmann Triantaphyllou was born in Furth, Germany where she completed her primary and secondary education. She continued her schooling at the University of Erlangen where she made important contributions on taxonomy and community structure of free-living nematodes. At Erlangen she completed a Ph.D. in zoology shortly after WWII, and then she served there as a postdoc until 1954 when she immigrated to the United States. In the U.S. Dr. Hirschmann made numerous scientific and educational contributions until her retirement on June 30, 1992 as Professor of Plant Pathology at North Carolina State University (NCSU). At NCSU Dr. Hirschmann researched a wide range of plant-parasitic taxa with a particular emphasis on the morphology and taxonomy of the root-knot and cyst nematodes. Together with her husband, Tasso, they clarified the reproductive strategies of the plant-parasitic nematodes and contributed to the success of the International *Meloidogyne* Project headed by the late Dr. Joe Sasser. Dr. Hirschmann was a distinguished teacher and taught with precision and attention to detail which greatly impacted her students. In 1962, Dr. Hirschmann





## INTERNATIONAL FEDERATION OF NEMATOLOGY SOCIETIES

### IFNS Three Minute Thesis (3MT<sup>®</sup>) Competition

#### **Submission Date Extended!**

The IFNS is delighted to announce that it will organize a virtual 3MT<sup>®</sup> competition open to all graduate students working in Nematology. Twenty videos will be selected to appear on the IFNS website, and the authors will be entered in a live competition.

The first-, second-, and third-place speakers will receive ICN 2022 Bursaries (unless already in receipt of a bursary) and will be awarded plaques during the 7<sup>th</sup> International Congress of Nematology in Antibes, France (May 1-6, 2022). Additional bursaries may be awarded depending on availability.

The objective of this IFNS 3MT<sup>®</sup> competition is to cultivate student academic and research communication skills, and to enhance overall awareness of nematodes and the science of nematology. The applicants are expected to effectively explain their research in three minutes, in a language appropriate to a non-specialist audience.

Students wishing to participate in this competition should send an email to Eric Grenier ([eric.grenier@inrae.fr](mailto:eric.grenier@inrae.fr)) with their name, Email, laboratory address, title of their thesis and a link to download their video (see rules below for video submission). **Applications will be open till 1 October 2021.**

The video presentations will be ranked by IFNS councilors in order to select the best 20. A live Zoom presentation by these 20 speakers will occur in late October/early November (date to be determined) and winning presentations will be selected. Awards will be announced before January 2022.

**Rules for Video submission.** Presentations are limited to 3 minutes.

Presentations commence when a presenter begins to speak (i.e., not as soon as the video appears)

Videos must meet the following criteria

Filmed on the horizontal and plain background, and from a static position from one camera angle

A single static slide is permitted in the presentation (no slide transitions, animations or 'movement' of any kind). The slide is to be presented from the beginning of the presentation.

- The 3-minute audio must be continuous – no sound edits or breaks.
- No additional props (e.g. costumes, musical instruments, laboratory equipment and animated backgrounds) are permitted within the recording.
- Presentations are to be spoken word (e.g. no poems, raps or songs) and will be in English.
- No additional electronic media (e.g. sound and video files) are permitted within the video recording.
- Recording your presentation can be done using a camera and or handheld video recorder however most phones allow you to record through the camera function and most computers have recording ability (via camera or webcam) using inbuilt programs. Online programs which you might also like to consider: Zoom - see how to record yourself via Zoom.

Please note: competitors will not be judged on video/recording quality. Judging will focus on the presentation, ability to communicate research to a non-specialist audience, and 3MT PowerPoint slide.

## The International *Xiphinema* project

The international project “XiphiVIR” about the detection of nepoviruses in the *Xiphinema americanum* species group aims to develop and validate a reliable detection method for viruses inside *Xiphinema* species that are mentioned in international plant health regulations. The method can also be applied to check nematodes for the presence of viruses in a broader context.

See: <https://zenodo.org/record/3991688#.YSNopY4zZaQ> for project info.

To test detection methods in nematodes, we need viruliferous *Xiphinema* specimens, or specimens without virus that we can feed on plants containing the virus of interest. So far, we did tests with *X. diversicaudatum* and obtained our first results, but we need more specimen (preferentially nepovirus carrying species).

In addition, as partner of the European Reference Laboratory (EURL) for Plant-parasitic nematodes we are looking for *Xiphinema* spp. as reference material. We will try culturing, but we also need specimen for permanent slides, good diagnostic photographs and DNA.

See: <https://sitesv2.anses.fr/en/minisite/plant-parasitic-nematodes/eurl-plant-parasitic-nematodes> for info on the EURL-Nematology

We are calling upon you for **specimen of *Xiphinema***. You can send them already isolated from soil (in suspension, frozen, preserved,..), but also still alive in soil samples. We prefer the latter.

Furthermore, we'd appreciate information on host plants and advice on culturing.

We are looking forward to hearing from you. Thank you very much in advance!

Kind regards, Ellen Everaert and Nicole Viaene

Ellen Everaert  
Wetenschappelijk attaché | Research associate

**ILVO**

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*Blijf op de hoogte van alle ILVO-nieuws,  
Schrijf u vandaag nog in op onze [nieuwsbrief](#)*

Nicole Viaene prof. dr. ir.

Senior onderzoeker nematologie / Research associate nematology

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European Union Reference Laboratory  
for Plant Parasitic Nematodes

*The consortium between ANSES (France) and ILVO (Belgium)*

*is the European Union Reference Laboratory for Plant Parasitic Nematodes*





"Crossing borders: a world of nematode diversity and impact to discover"



## Announcing New Dates for the ICN 2022

Dear participants,

The Seventh International Congress of Nematology meeting dates have **once again** been rescheduled due to the coronavirus situation. **The ICN 2020 will be held 1-6 May 2022 at the Palais des Congrès in Antibes Juan-Les-Pins (France).**

This decision was proposed by the meeting organizers in consultation with the European Society of Nematologists. Representatives of the 18 nematology societies comprising the Congress met and agreed unanimously that the change is necessary because of continuing uncertainty about when travel and meeting restrictions will end, and when most people will decide it is again safe to travel. All societies rejected the option of cancelling the 7<sup>th</sup> ICN, because it is the only nematology meeting fully organized, funded and ready to occur when the pandemic ends, and because cancellation would incur enormous financial penalties. Most other 2021 on-site, international conferences are rescheduling to 2022 for similar reasons.

The **scientific program** will be maintained as nearly as possible in its current form, but with revised dates. Authors will have the opportunity to revise their original abstracts and session organizers will have the ability to review and revise their agendas. We kindly ask authors not to contact us at this time as conference arrangements are being adjusted. More information will be sent in due course.

**Bursaries** that were awarded previously will be honored for those attending the Congress. A second bursary competition for graduate students is being considered, pending the availability of funds.

Official letters from the ICN Organizing Committee, requesting refunds/rescheduling of airline tickets for Congress delegates, will be sent to airlines and can be obtained from [lwduncan@ufl.edu](mailto:lwduncan@ufl.edu).

Again, we advise you to make the appropriate changes regarding travel and, if you made your own booking (not with Alpha Visa Congrès), hotel reservations. Participant's registration fees will be transferred automatically and hotel reservations arranged by Alpha Visa Congrès will be rescheduled to the new dates

which you will be able to modify according to new travel plans.

Registration for the Seventh International Congress of Nematology is currently 744 nematologists from 59 countries, including 100 student and early career scientist bursary recipients. The scientific program comprises 32 concurrent sessions with 288 oral presentations, 12 workshops, 12 keynote speakers, and poster sessions with more than 500 presentations. The mid-meeting excursions will provide outstanding

opportunities to explore the splendid nature and the amazing culture of the French Riviera.

Very few nematology meetings will have occurred in the entirety of 2020-21. Hopefully, opportunities to interact virtually will be provided by some societies and possibly the IFNS in the coming months. But the 7<sup>th</sup> ICN will be an important opportunity to finally meet together again, face to face, to renew our work among friends, colleagues and students. We look forward to welcoming you in Antibes in 2022, where we shall celebrate an end to the crisis at a truly memorable scientific meeting.

**Dr. Pierre Abad, 7<sup>th</sup> ICN Chair**

**Ernesto San-Blas, Scientific Program Chair**

**Larry Duncan, IFNS President**



## THE NATHAN A. COBB NEMATODOLOGY FOUNDATION

Terry Niblack, Chair David Shapiro, Vice-Chair Axel Elling, Treasurer Janete Brito, Secretary

“Promoting Nematology Worldwide”

Nathan A. Cobb  
1858-1932



## The Cobb Foundation Video Contest is back!

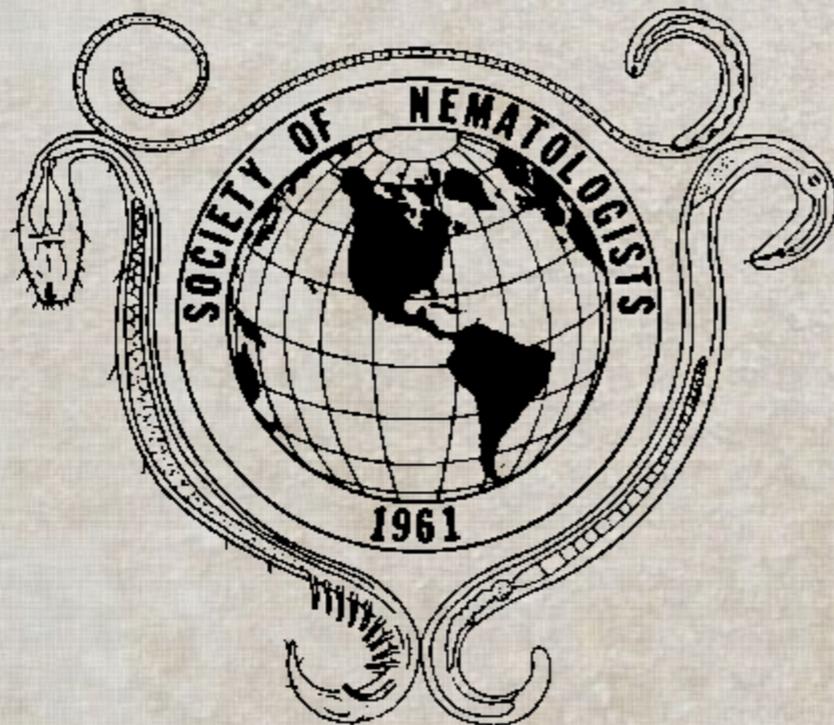
The Cobb foundation invites students and post-docs to share an aspect of nematology that fascinates them in a video. All videos will be presented on the Cobb Foundation website and winning videos will earn cash prizes!! You have until June 30, 2021 to submit your videos.

Details at: <https://nematologists.org/Cobb-Video-Contest>

For questions and additional information, please contact The Cobb Foundation [cobbvideocontest@gmail.com](mailto:cobbvideocontest@gmail.com)

Past contest videos:

[https://www.youtube.com/playlist?list=PLQunXbtYdyTGXsECJ\\_fm1AwN-D3XBGTwrr](https://www.youtube.com/playlist?list=PLQunXbtYdyTGXsECJ_fm1AwN-D3XBGTwrr)



## Creating the Nematology of Tomorrow

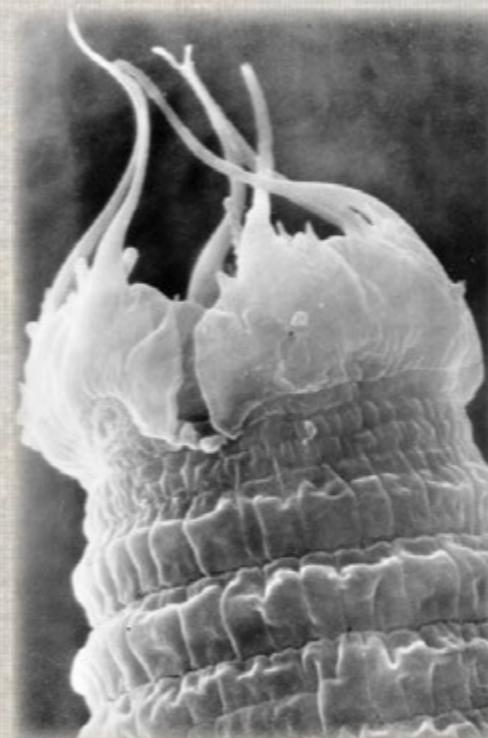
When you contribute to the Nathan A. Cobb Foundation you are helping to build capacity in Nematology – capacity to step up to some of the grandest scientific challenges humans face.

Our students and early career researchers are changing the future of Agriculture, Biomedicine, Education and the Environment, and making fundamental discoveries about the world we live in. With the support of the Cobb Foundation, students can attend scientific meetings and workshops where they can present their latest research findings, but also network with other potential collaborators and future employers in science and industry. Talk about bang for the buck!

In the hustle and bustle of the holiday season, it can be easy to lose sight of what really matters. As you pause for a moment of gratitude, consider how financial support to a student can radically change their trajectory. It certainly changed mine. How about you?

To make your tax-deductible donation go to <https://nematologists.org/sys/website/?pageId=7744>.

Thank you, Byron Adams, Chair, Cobb Foundation

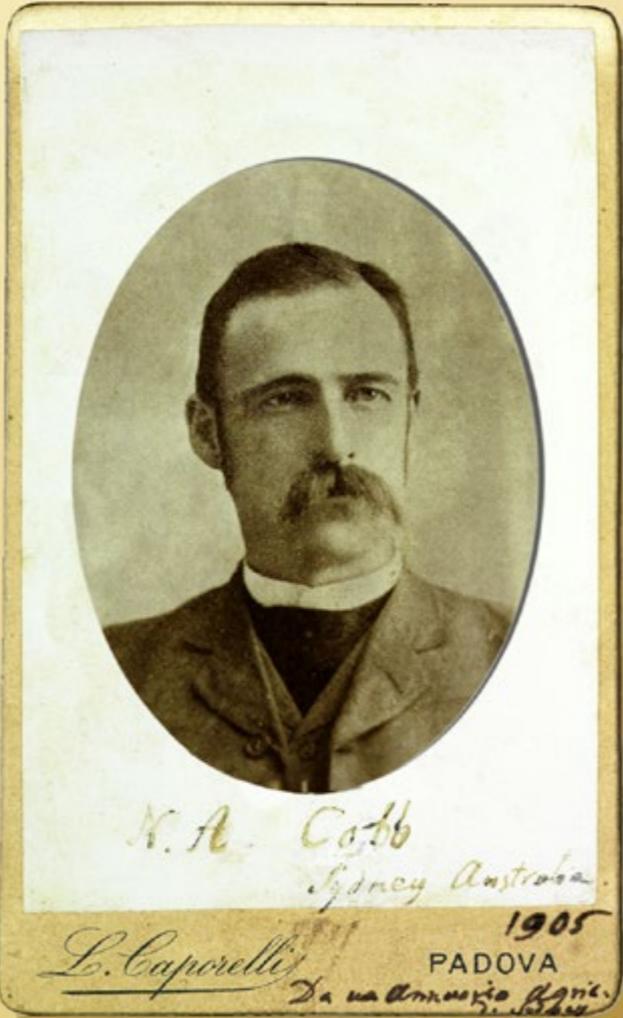


*Scottinema lindsayae* is a nematode species that lives in Antarctica, in the McMurdo Dry Valleys. *Scottinema* feeds on soil microorganisms such as bacteria, which are the main players of carbon and nutrient cycling. By being their “predator”, *Scottinema* regulates their abundance and biomass turnover, and in doing so it influences the cycling of carbon and nutrients. Photo courtesy of: M. Mundo

# Call for Nematode Trading Cards

Please consider making your submission(s) to the Nematode Trading Card Collection organized by Dr. Jon Eisenback. Six different templates are available for the following categories: 1. People (red background), 2. Nematodes (green background), 3. Habitats (yellow background), 4. Morphology (orange background) 5. Symptoms (purple background) and 6. Control (blue background). If you have any questions, please feel free to contact Dr. Jon Eisenback ([jon@vt.edu](mailto:jon@vt.edu)).

Dagger nematode	Grape
	
<p><b>Surface necrosis, sloughing cortex</b></p> <p>A distinct symptom caused by dagger nematode, <i>Xiphinema</i> spp., is a sloughing of the cortex in heavily damaged roots. Reduced root systems are marked with root necrosis, suppressed secondary and feeder roots, devitalized and swollen root tips, occasional tufts of stubby rootlets, and darkened root systems with brown lesions on short feeder roots.</p>	
④	5



N.A. Cobb  
Sydney Australia  
1905  
L. Caporelli  
PADOVA

1920 -2009	USA - Univ. of Fl.
	
<p><b>Armen Charles Tarjan</b></p> <p>A founding member of the SON and ONTA, he was elected as an Honorary Member of both societies, and as a Fellow of ESN. Charlie was involved with many international nematologists in South and Central America, as well as Europe and Africa. He made numerous contributions to nematode taxonomy, marine nematology, and diseases of citrus.</p>	
④	20

Dagger nematode Migratory ectoparasite



*Xiphinema americanum*

Dagger nematode: Body long and thin, sluggish movement, stylet very long and thin, with extension having three flanges. Esophagus does not overlap intestine. Didelphic ovary with vulva near midbody, tail conical and dagger-like. Males are rare. Common in agricultural and forest soils. An ectoparasite on corn, soybean, strawberry, grape, peach, apple, cherry, sycamore, pine, oak, and spruce. Long life span of 4-5 years.

④

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1916-2007

USA - Cornell



Bill Mai

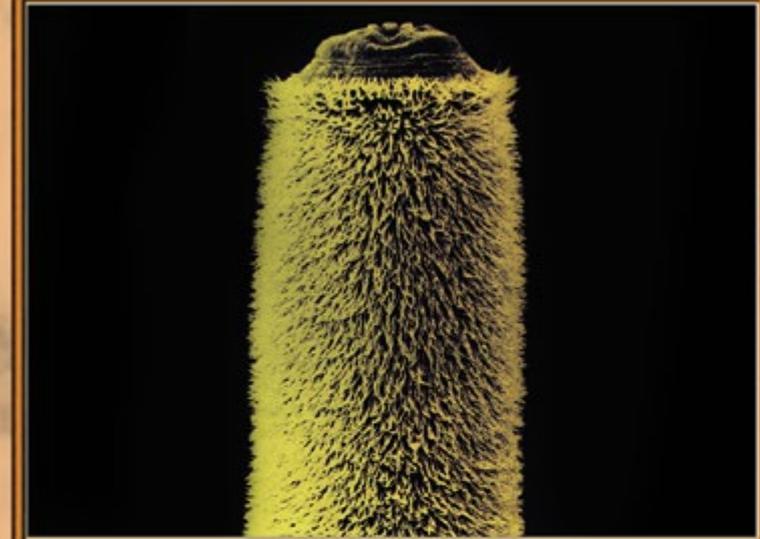
An early leader of plant nematology, his first research projects dealt with the biology and management of the golden nematode, effectively eliminating its spread. Remembered for his "Pictorial Key to Genera of Plant-Parasitic Nematodes," he trained more than 45 graduate students who became leaders in research, industry, and teaching in the US and world. He served as President of SON and was awarded as a Lifetime Honorary Member.

④

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Body wall

Cuticle



Pilae

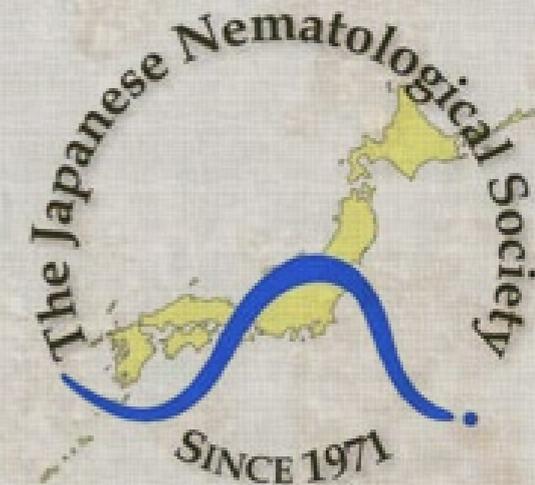
These cuticular structures are pillar-like in form and cover the external surface area. It is thought that these increase the surface area of the the cuticle, allowing the nematode to absorb nutrients directly from its host.

④

47

David Hunt

European Society of Nematologists



***Postdoctoral Position in Molecular Plant Nematology available in the Laboratory of Dr. Thomas Baum, Iowa State University***

The postdoctoral scientist will conduct research on the mechanisms of pathogenicity/virulence of plant-parasitic nematodes in the laboratory of Dr. Thomas Baum in the Department of Plant Pathology and Microbiology (<https://www.plantpath.iastate.edu/baumlab/>). The postdoc is expected to work productively in a collaborative team environment, design and execute experiments, analyze and interpret data, review and keep up-to-date on relevant scientific literature, prepare presentations and manuscripts, assist the PI with reports and the writing of grant proposals, assist other laboratory members and graduate students and supervise an undergraduate research assistant.

This position is one-year with the potential to be renewed additional years based on satisfactory performance.

For more info and to apply follow this link:

[https://isu.wd1.myworkdayjobs.com/en-US/IowaStateJobs/job/Post-doctoral-Scientist\\_R6342](https://isu.wd1.myworkdayjobs.com/en-US/IowaStateJobs/job/Post-doctoral-Scientist_R6342)

***Thomas J. Baum***

Charles F. Curtiss Distinguished Professor

4002 ATRB

Department of Plant Pathology and Microbiology

Iowa State University

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515-294-5420

[tbaum@iastate.edu](mailto:tbaum@iastate.edu)

[www.baumlab.org](http://www.baumlab.org)

<http://www.plantpath.iastate.edu/>



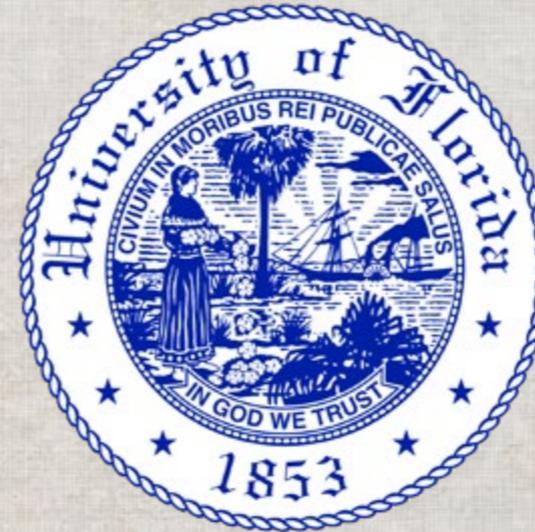
## Worms *et al.* (<https://www.wormsetal.com>) Seeks Collaborators for Building a Better Nematode Mitochondrial Genome Database

Dr. Porazinska and her team at the University of Florida are seeking fellow Nematologists to collaborate in the establishment of a robust and comprehensive database of nematode mitochondrial genomes. We are looking for live specimens of single well-characterized nematode species from cultures or environmental samples that are amenable for reference mitochondrial genome sequencing.

The use of metabarcoding has greatly improved our understanding of nematode diversity and ecology by increasing the speed and number of samples that can be processed. The technique has largely relied on the use of 18S rRNA. While highly useful, 18S rDNA lacks species resolution and hence limits a more accurate assessment of nematode biodiversity and identification of nematodes at the species level. While mitochondrial *cox1* genes could provide this resolution, the hypervariable priming regions limit its usability for metabarcoding. Instead of relying on a single mitochondrial gene, we propose an approach of mitochondrial metagenomics using shotgun sequencing. However, for this approach to work, there is a need for a well populated and curated database. Unfortunately, most mitochondrial reference sequences available in publicly accessible databases are heavily skewed towards a few branches of the nematode phylogenetic tree, and primarily consist of animal and plant parasites. We are in the process of expanding the currently available database, particularly for the underrepresented nematode taxa (but we will happily accept any well-characterized specimens that have not been sequenced yet). The goal is to provide the mitochondrial genome reference database as a resource for the academic and public communities.

To expand the currently available data and establish a robust and comprehensive database, we are looking for samples of nematodes that contain specimens of single identified species (through morphological and/or molecular analysis). In turn, we will work to produce full mitochondrial genomes. Since we often recover nuclear ribosomal sequences as well, we can contribute to the expansion of the 18S database as well. All

generated data can be shared back with collaborators if needed. If you are interested please contact either Dorota Porazinska at [dorotalp@ufl.edu](mailto:dorotalp@ufl.edu) or Eli Gendron at [egendron@ufl.edu](mailto:egendron@ufl.edu).



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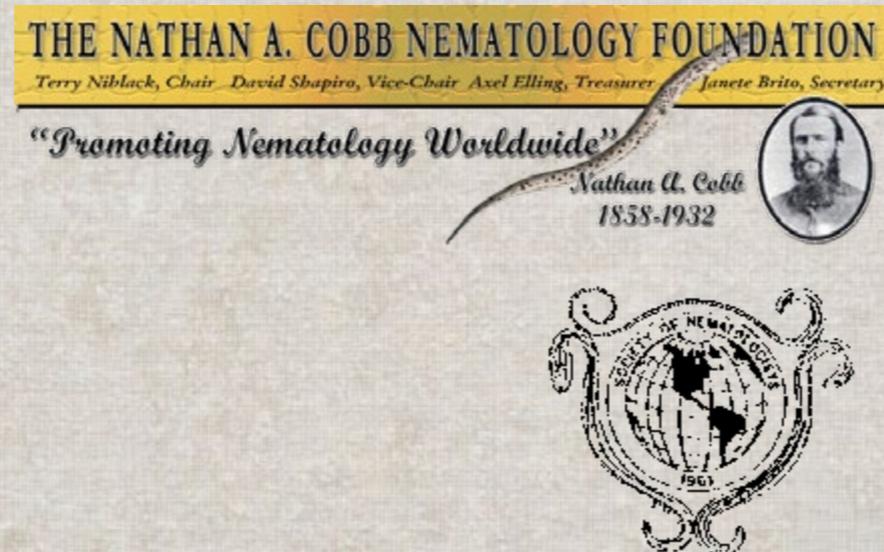
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We wish to express our gratitude to the following companies who support our society and contribute to its continued growth:



Dear Nematology Newsletter Readers and SON members:

Two items are listed for your consideration. Since we know that students are the future of our discipline, please consider supporting the Nathan A. Cobb Nematology Foundation: <http://www.crec.ifas.ufl.edu/societies/nacobb/projects.shtml>. This foundation's primary purpose is to raise money to provide travel for students to scientific meetings.

To continue to be a member in good standing, please pay your dues. Also, please make a generous contribution to the Nathan A. Cobb Nematology Foundation with your tax-deductible support to the Foundation when you renew your SON membership at <http://nematologists.org/products/>.

If you have any contributions for the quarterly newsletter, please email me directly.

Gary Phillips, Editor  
*Nematology Newsletter*

Please submit your contributions to the *Nematology Newsletter* at the following email address:  
[gphilli9@utk.edu](mailto:gphilli9@utk.edu)

