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Nematology News

Get ready for the 36th ESN Symposium Egmond-aan-zee, The Netherlands



Discover the Charm and Beauty of this Enchanting Seaside Resort

Egmond aan Zee, an idyllic coastal town located on the North Sea, is a destination that captivates with its natural beauty, rich history, and relaxing atmosphere. Whether you are looking for a peaceful beach holiday, adventurous outdoor activities, or cultural discoveries, Egmond aan Zee has something for everyone.

Beaches and Nature

Egmond aan Zee is renowned for its expansive sandy beaches and stunning dune landscapes. The beach is perfect for long walks, sunbathing, and building sandcastles. For adventurous visitors, there are opportunities for surfing, kite surfing, and beach volleyball. The nearby North Holland Dune Reserve offers miles of walking and cycling paths where you can enjoy the tranquillity and beauty of nature.

History and Culture

The history of Egmond aan Zee dates back to the Middle Ages. Visit the J.C.J. van Speijk lighthouse, an iconic beacon that has illuminated the coast since 1834. The Egmond Museum provides fascinating insights into local history, with exhibitions on fishing, daily life, and the battle against the sea.

Charming Village Centre

The centre of Egmond aan Zee is a charming place with cosy cafés, restaurants, and boutiques. Enjoy fresh seafood dishes, locally brewed beer, and delicious ice cream as you stroll through the picturesque streets. At the weekly market, you can discover local products, crafts, and souvenirs.

Activities and Events

Egmond aan Zee offers a wide range of activities and events throughout the year. From horse rides on the beach to sea fishing and from yoga on the beach to art exhibitions, there is always something to experience. Don't miss the annual Egmond Half Marathon, a running event that attracts participants from around the world.

Hospitality and Accommodation

Egmond aan Zee is known for its welcoming atmosphere and diverse accommodation options. Whether you choose a cosy bed & breakfast, a luxury hotel by the sea, or a holiday cottage in the dunes, you will always feel at home.



Accessibility

Egmond aan Zee is easily accessible by car, public transport, or bicycle. It is only a short distance from larger cities such as Alkmaar and Amsterdam, making it an ideal destination for a day trip or a longer stay.

Come and discover for yourself why Egmond aan Zee is one of the gems of the Dutch coast. Be enchanted by the sunsets, enjoy the fresh sea air, and create unforgettable memories in this charming seaside resort.

ESN Governing board

Three vacancies will arise on the ESN Governing Board at the next Symposium in 2026, when Hans Helder, Raquel Campos-Herrera and Shahid Siddique all come to the end of their periods of office. These positions will need to be filled from within the membership.

When Hans steps down after his maximum 8 years in the role, we will need a new Society Treasurer and as the ESN is registered in, and conducts all banking in, The Netherlands, this position should ideally be held by an ESN member based in that country. Given the importance of the Treasurer role, Shahid has graciously agreed to step down slightly before the end of his term to allow the recruitment of a new GB member (and Treasurer-elect) this year, to provide a period of overlap with the current treasurer – thereby ensuring a smooth transition.

The board will nominate a candidate from the Netherlands for the vacancy, and the membership has the opportunity to nominate additional candidate(s). Each nomination must be made by a member of the Society and seconded by another member of the Society, in writing. The nominees who fulfil the requirements for Governing Board membership shall be listed as candidates for election and be published two months prior to an electronic vote (note that only active members (i.e. have paid their membership fee, or were gifted a membership as part of an award) may vote.

If only one nomination is received, a vote will not be required.

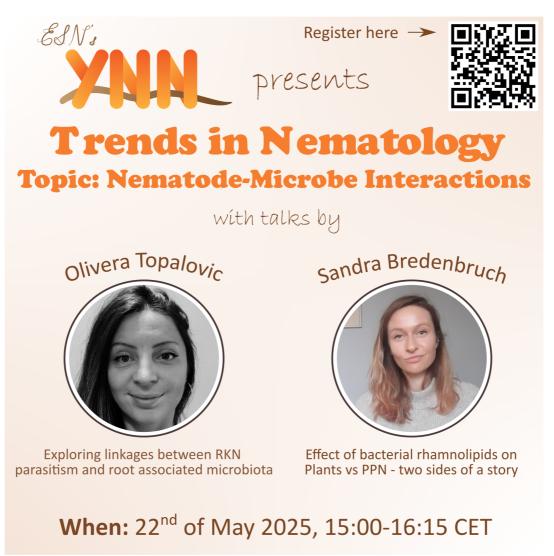
Nominations and supporting letters should be sent to the secretary by 25th of May. Please feel free to contact the secretary (se389@cam.ac.uk) for informal enquiries.

Please note, at this time, we are only seeking to fill one position on the Governing Board. The nomination process for the remaining two places will be announced later this year for election of candidates during the General Meeting at the 2026 Symposium.

Young Nematologists Network

Since November 2024, YNN are running a new webinar series on Advances in Nematology. Interesting presentations on emerging pests and advances in bioinformatics were given and 45 young nematologists from 15 countries joined the last webinar on 20th February. The next webinar is scheduled for 22nd May.

YNN has joined forces with APN and the student committee of SON to organise another Virtual Nematology Conference (VNC). The date of the VNC will be Thursday the 13th and Friday the 14th of November 2025.



Get involved

We are looking for students and early-career researchers intersted in helping us organize VNC 2025. Joining the organization committee is a great way to find out what we do at the YNN, and apply to become a YNN board member if you would like to contribute to our cause. This year we are especially intersted in students and ECRs who would like to join our social media team to apply. Please scan the QR code and follow the link to express your interest.





Young Nematologists Network (YNN)

Don't forget to become a YNN member using the QR code!



PratyOmics

- On February 12th 2025, the University of Évora hosted the closing workshop of PratyOmics Plant metabolomics for the control of the root lesion nematode *Pratylenchus penetrans*, bringing together most Nematologists from Portugal.
- This marked one of the largest gatherings of national specialists in recent years—hopefully the beginning of an annual meeting for Portuguese Nematologists.
- A huge thank you to Claudia S. L. Vicente, PI of PratyOmics and head of the Nematology lab at the University of Évora, for bringing us all together!
- Read the news in Portuguese at https://www.med.uevora.pt/pt/workshop-do-projeto-pratyomics-reuniu-especialistas-em-nematologia-nacionais-e-internacionais-em-evora/

David Pires



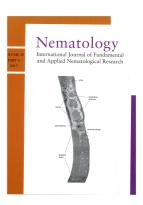
Portuguese nematologists at the PratyOmics workshop in Évora

Highlights of issues 6-10 of Nematology 26 (2024)

Nematology is a hybrid journal, which means that publishing in *Nematology* is free upon acceptance of your paper. If you have funding available, or if De Gruyter Brill has a transformative agreement (Brill Transformative Agreements) with your university (which will be checked automatically in our submission system), your article may also be published in Open Access.

Each volume of *Nematology* contains 10 issues. All articles are available online with a DOI immediately corrected proofs are returned. *Nematology* papers, including the earlier papers of *Nematologica*, are available on Brill's online platform at: http://booksandjournals.brillonline.com/content/15685411

Volume 26 (2024) contains 72 full research papers, 3 short communications, 2 Forum articles and 1 review article. Below, Roland Perry selects a paper from each of issues 6-10 of Volume 26.



Issue 6

Natsumi Kanzaki, Yuta Fujimori, Taisuke Ekino and Yousuke Degawa (2024).

Pristionchus seladoniae n. sp. (Diplogastridae) isolated from a eusocial soil-dwelling bee, Halictus (Seladonia) aerarius, in Nagano, Japan.

Nematology 26, 621-645. DOI: 10.1163/15685411-bja10326

The model nematode, *Pristionchus pacificus*, is used in many subfields of biology, especially in developmental biology due to its phenotypic plasticity. A new species of *Pristionchus* was isolated from a soil-dwelling bee, *Halictus* (*Seladonia*) *aerarius*, collected from Sugadaira, Nagano, Japan. Typologically, the new species is similar to other *Pristionchus* species belonging to the *maupasi*, *pacificus* and *Iheritieri* groups. Phylogenetically, the nematode belongs to the *maupasi* group, the 'American clade' within the genus, and is separable from the other species in the group. Biologically, the species has several interesting characters: it is seemingly native to Japan, regardless of its phylogenetic group; it is in tight and specific phoretic association with a eusocial bee; it lacks a eurystomatous form (or this form occurs rarely) under cultured conditions; and it shows characteristic clumping behaviour on culture media.

Issue 7

Michaela Jakubcsiková, Lenka Demková, Marek Renčo and Andrea Čerevková (2024).

Impact of Solidago gigantea invasion on nematode communities in grasslands.

Nematology 26, 779-793. DOI: 10.1163/15685411-bja10338

Non-native species of invasive plants have become a global problem, among which is the giant goldenrod, *Solidago gigantea*, introduced to Europe in the 18th century. The aggressive spread of *S. gigantea* now poses an important threat to numerous ecosystems and their indigenous flora and fauna. This study indicated that invasion by *S. gigantea* did not strongly affect nematode taxonomic diversity but negatively affected functional diversity, with increased abundance of bacterivore and fungivore nematodes and decrease in values of ecological and functional indices. Soil with *S. gigantea* was less mature and more disturbed with a degraded or depleted food web. The interaction between the studied sites and invasion status confirmed the effect of invasion on nematode biomass, with the abundance of bacterivore and fungivore nematodes and the functional indices more prominent at sites characterised by cold and humid climates. These findings underscore the importance of considering both taxonomic and functional diversity and the characteristics of the plants and sites when evaluating the impact of plant invasion on soil biota.

Issue 8

Vongai Chekanai, Roy Neilson, David Roberts, Simon Edwards and Matthew Back (2024).

In vitro nematicidal efficacy of brassica-derived isothiocyanates against the root lesion nematode, *Pratylenchus* penetrans.

Nematology 26, 899-908. DOI: 10.1163/15685411-bja10347

Brassica plants produce glucosinolates as secondary metabolites hydrolysed to biocidal isothiocyanates (ITCs) and have the potential for nematode management through biofumigation. Understanding the relative impact of different ITCs on the motility and mortality of *Pratylenchus penetrans* could provide some insights into the selection of relevant brassica biofumigants. Nematode motility and mortality were significantly affected by the type of ITC, concentration and time of exposure. The number of non-motile nematodes increased with increasing concentration and time of exposure across all tested ITCs, and the effects of ITCs could be considered irreversible. This study suggests that brassica biofumigants that produce Benzyl, Allyl and 2-Phenylethyl ITCs are promising candidates for biofumigation of *P. penetrans*.

Issue 9

Yuji Oka (2024).

Coffee and its waste repel second-stage juveniles of Meloidogyne species and inhibit their infection of lettuce roots.

Nematology 26, 995-1011. DOI: 10.1163/15685411-bja10353

Second-stage juveniles (J2) of *Meloidogyne* species are repelled by several compounds, but practical and sustainable repellents for nematode control are unknown. This study tested instant coffee crystals (ICC) and a methanolic extract of spent coffee grounds (SCG) for their repellency against, and infection inhibition of, J2 of *Meloidogyne* species on agar plate assays. J2 of *Meloidogyne javanica*, *M. hapla* and *M. marylandi* were repelled by the SCG extract and ICC. When ICC were mixed with chemical J2 attractants, their attractiveness to *M. javanica* J2 was reduced or abolished. ICC and the SCG extract deposited near lettuce seedling roots on the agar plate reduced the number of *M. javanica*, *M. incognita* and *M. hapla* J2 attracted to the root tips, decreased infection rates, and increased root length compared to seedlings grown on the non-treated side of the same plate. The results indicate that ICC and the SCG extract have repellent and infection-inhibitory activity against *Meloidogyne* J2 and are potential control means for *Meloidogyne* species.

Issue 10

Josselin Montarry, Marine Biget, Sylvain Chereau, Lionel Lebreton, Eric Grenier and Sylvain Fournet (2024).

The carrot cyst nematode Heterodera carotae: a major plant-parasitic nematode requiring more investigation.

Nematology 26, 1079-1089. DOI: 10.1163/15685411-bja10361

This Open Access Review article details the current knowledge on the carrot cyst nematode, *Heterodera carotae*. Despite decades of research, *H. carotae* still remains a poorly known species, even though it is a major threat to carrot production. Found worldwide in cultivated areas, nothing is known about its presence in wild ecosystems and its evolutionary history. *Heterodera carotae* has become the primary threat to the carrot sector following the withdrawal of the last chemical soil fumigants in Europe. A keyword co-occurrence network was used to structure the review into five research areas: i) biology and epidemiology of *H. carotae*; ii) molecular identification and phylogeny; iii) population genetics and genomics; iv) control methods and strategies; and v) root exudates and hatching stimulation. The findings indicate that *H. carotae* is an under-studied plant-parasitic nematode species, with several identified alternative control methods that require further investigation.

Roland N. Perry, Editor-in-Chief, Nematology

Obituaries

Prof. August Coomans (1936 - 2024)

With profound sadness we announce the passing of Professor August Coomans on 16 December 2024. August Coomans' remarkable contributions to the scientific community and his profound impact on the field of nematology will be cherished and remembered by colleagues, students, and friends worldwide.

August Coomans earned a Licentiate in Biology at Ghent University, Belgium in 1958, graduating with the highest distinction. During his studies, he served as a student assistant, teaching and collaborating with his peers. In 1963, he obtained a Doctorate in Science, specialising in zoology, with a detailed study on the morphology and systematics of Dorylaimina under the direction of Prof. L. De Coninck. Following roles as an assistant, work leader, and lecturer, he was appointed full professor at the Faculty of Sciences at Ghent University in October 1972. For many years he served as director and department head of the Laboratory of Morphology and Systematics of Animals, as well as the Museum of



Zoology. His pioneering research on the taxonomy, phylogeny, and morphology of nematodes revolutionized our understanding of our favourite organisms. He conducted comprehensive analysis of the sensory, glandular and muscular structures across a diverse range of species. In addition to his pioneering work in light microscopy, he was among the first to apply electron microscopy to nematology, setting new standards in the discipline and opening avenues for other investigations. August Coomans was one of the earliest and most influential proponents of phylogenetic approaches to nematode taxonomy, introducing the principles of cladistics. He applied these principles to his analysis of relationships within the families *Longidoridae* and *Actinolaimidae* and, to his monumental monograph on the phylogeny of the genus *Xiphinema*. Through his work, he emphasised the critical importance of distinguishing between synapomorphic and homoplastic characters, paving the way for disentangling convergent groups within nematodes.

Throughout his illustrious career, Professor Coomans authored over 330 international publications and several authoritative books, contributing an invaluable body of work to the scientific literature. As a sought-after speaker, he was invited to more than 50 international symposia, where he delivered numerous lectures that inspired and educated audiences worldwide. His dedication to scientific service included editorial roles for several nematological journals, reflecting his commitment to advancing the field. He was President of the European Society of Nematologists from 1992 to 1996; He was admitted to the Royal Belgian Academy for Sciences, Arts, and Literature, first as member (1978) and then as President of the Natural Sciences Section (1991). He is a Fellow of both the Society of Nematologists and the European Society of Nematologists.

Professor Coomans taught more than ten undergraduate and graduate-level courses on zoological and hematological subjects at Ghent University, reaching approximately 7000 students. As a visionary educator, he co-founded the International Master of Science in Agro- and Environmental Nematology (coordinated at Ghent University, Belgium), a program that has nurtured generations of researchers and fostered a global community of nematologists. He extended his mentorship beyond the classroom, often inviting students and colleagues to accompany him on research expeditions that spanned diverse and extreme environments from the depths of the ocean to the summits of mountains, from tropical rainforests to arid deserts. These expeditions, which included ventures to regions such as Congo, the Great Barrier Reef, the Solomon Islands, Mount Kenya, South Africa, Zimbabwe, China, and the Galapagos Islands, not only yielded invaluable scientific discoveries, but also resulted in a vast and enduring international scientific network.

Professor Coomans' legacy includes the description of over 180 new species and 20 new genera, each representing a significant contribution to biodiversity science. His work went beyond research, reflecting a spirit of exploration, teamwork, and teaching that deeply influenced the scientific world.

August Coomans was not only a brilliant scientist but also a generous mentor and colleague whose passion for discovery inspired all who had the privilege of working with him. He will be deeply missed by the global scientific community, but his extraordinary achievements and the networks he nurtured will continue to flourish, ensuring that his legacy endures for generations to come.

With heartfelt condolences,

His colleagues at Ghent University

Professor Maria Susana Newton de Almeida Santos (1935-2025)



Professor Maria Susana Santos passed away on March 12th, 2025. She began her career in Nematology as a Teaching Assistant and was awarded the PhD degree in Nematology by London University, U.K., in 1970. Her doctoral research was conducted at Rothamsted Experimental Station under the guidance of Dr. Mary Franklin, and her thesis was entitled "Studies on the reproduction and sexual behaviour of some species of *Meloidogyne* Goeldi, 1887 (Nematoda: Heteroderidae). After receiving the PhD degree, she returned to the Faculty of Sciences and Technology, University of Coimbra, where she was appointed as Assistant Professor. She steadily advanced through the academic ranks, attaining full Professor status by 1982.

Her dedication to excellence and precision in her research and writing made her an outstanding mentor for graduate students, postdoctoral fellows and visiting scientists. She

has directed M.Sc. and Ph.D. candidates including some who have later emerged as prominent nematologists. She chaired the committee that developed the inaugural M.Sc. program in Animal Ecology at the University of Coimbra, which featured a specialization in Nematology. She has organized several advanced courses across different fields of Nematology, for which scientists from various institutions and countries were invited to collaborate and give lectures, thereby sparking young scientists' interest in the topic. She has also organized workshops including the "Third Regional Conference on Root-Knot Nematode Research for Region VII, of the International Meloidogyne Project (IMP)" held at the University of Coimbra. She was co-founder of the Institute for Environment and Life, University of Coimbra, serving as the Director of the Biological Interactions Unit.

Maria Susana Santos's research interests have been diverse, ranging from taxonomy, biology, and ecology of root-knot nematodes (RKN), Meloidogyne spp., and to the development of reliable, sensitive and rapid methods for detection and identification of RKN and potato-cyst nematodes (PCN), Globodera spp., populations, using biochemical and molecular techniques; selection of PCN lines with stable levels of virulence resulting from controlled matings; plant-nematode interactions, biological control; and nematicidal potential of plant and algal extracts to RKN.

Maria Susana Santos authored or co-authored over 80 publications, including several chapters in books. She has described eight new nematode species, Meloidogyne ardenensis, M. lusitanica, M. paranaensis, Trichodorus azorensis, T. beirensis, Paratrichodorus divergens, Xiphinema exile and X. diversum. The species X. santos was named in her honour by Lamberti, Lemos, Agostinelli and D'Addabo. She was the first to recognize the presence of Globodera pallida in Portugal. She was a co-editor of the book "An Introduction to Virus Vector Nematodes and their Associated Viruses", which contained the proceedings of the workshop held at the University of Coimbra to introduce the subject of virus-vector nematodes and their associated viruses to young scientists. She also served as co-author of the book "Manual for Research on Verticillium chlamydosporium, a Potential Biological Control Agent for Root-Knot Nematodes", and held various editorial roles for multiple journals.

Maria Susana Santos served the European Society of Nematology (ESN) as a member of the governing board (1983-1986), as President-Elect (1988-1989) and as President (1990-1992). In 1992, she organized the 21st Symposium of the European Society of Nematologists, held in Albufeira, Algarve, Portugal. In 1999, she was invited to join the Task Force Group of the National Eradication Program for the Pinewood Nematode. She also played a key role in the foundation of the "Sociedade Portuguesa de Fitopatologia (SPF)". In 2004, she was awarded Fellowship of the ESN and, in 2007, Fellowship of SPF.

Her ability to construct and articulate concepts, to relate abstract principles to practical experience, to define research and academic problems, and to assist students and faculty colleagues has been invaluable to the advancement of Nematology, particularly at the University of Coimbra and in Portugal.

We will deeply miss her friendship, smile and sense of humor. She will be remembered and will live forever in our memories and through her family to whom we extend the deepest sympathy.

Isabel Abrantes and Colleagues at Portugal

Upcoming meetings



76th ISCP, Tuesday 20th May 2025, Ghent, Belgium

A one-day event with parallel sessions on nematology, agricultural entomology and acarology, phytopathology, herbology and formulation and application technology, pesticide residues, toxicology and ecotoxicology.

https://www.ugent.be/bw/plants-and-crops/iscp/en



The 64th Annual Meeting of the Society of Nematologists
Victoria, British Columbia
July 13th - 17th, 2025

https://www.nematologists.org/SON2025



7th-12th September, Hydra, Greece

The study of helminth parasites continues to generate exciting new developments across a range of scientific themes, extending our knowledge of intricate host-parasite molecular interactions and crossing disciplinary boundaries. The in-person discussion meetings in the Parasitic Helminths: New Perspectives in Biology and Infection series are the leading annual event in the field., and, we now invite applications for the 2025 conference on the beautiful island of Hydra, Greece.

https://helminthconference.org/

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Information needed for the newsletter

The ESN Governing Board would like this newsletter to be a Forum that is more widely used by the membership to share news and information. So, if you have any information and/or images that might be of interest to ESN members please send a note to the editors (Wim Wesemael - wim.wesemael@ilvo.vlaanderen.be or Bart Vandenbossche - b.vandenbossche@e-nema.de). All that is needed is a small amount of text in a word file or an email message, along with an accompanying image.