
CONTACT INFORMATION

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EDUCATION AND ACADEMIC DEGREE

2012 Ph.D., Ecology and Environmental Sciences, Vilnius University;

2007 M.Sc., Ecology and Environmental Sciences, Vilnius University;

2004 B.Sc., Biology (Zoology), Vilnius University.

PROFESSIONAL EXPERIENCE

2022 – now - Senior Researcher, Nature Research Centre Institute of Ecology, Laboratory of Chemical and Behavioral Ecology;

2017 – 2022 - Researcher, Nature Research Centre Institute of Ecology, Laboratory of Chemical and Behavioral Ecology;

2015 – 2017 – Post-doc, Plant Pathology Department, University of California, Davis, USA;

2013 – 2015 – Post-doc, Nature Research Centre Institute of Ecology, Laboratory of Chemical and Behavioral Ecology, Lithuania;

2013 – 2015 - Lecturer, Vilnius University, Lithuania;

2010 – 2013 - Junior Researcher, Nature Research Centre Institute of Ecology, Laboratory of Chemical and Behavioral Ecology, Lithuania;

2007 – 2013 - Senior Specialist, State Plant Service under the Ministry of Agriculture, Phytosanitary Research Laboratory, Lithuania.

RESEARCH INTERESTS

Chemical ecology of plant-parasitic and entomopathogenic nematodes: nematode behavior, pheromones, attractants, repellents, kairomones, and tritrophic interactions through chemical compounds.

PUBLICATIONS

Scientific articles published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (with citation index):

Čepulytė, R., Osinska, E., Apšegaitė, V., Tiškevičiūtė, D., Būda, V. **2025**. Scent of death: Emission and behavioral role of 1-nonene in entomopathogenic nematode *Steinernema kraussei*. PLOS One, 20 (7): art. no. e0328628. <https://doi.org/10.1371/journal.pone.0328628>, Q1.

Čepulytė R., Tiškevičiūtė D., Osinska E., Būda V., **2024**. Responses of two entomopathogenic nematode species from the genus *Steinernema* to ethanol and 1-nonene, Biological Control, Volume 192, 105505, ISSN 1049-9644.

Campos-Herrera, R., González-Trujillo, M.D., Vicente-Díez, I., Carpennero, E., Puelles, M., Vaquero, E., **Čepulytė, R.** **2023**. Exploring entomopathogenic nematodes for the management of *Lobesia botrana* (Lepidoptera: Tortricidae) in vineyards: Fine-tuning of application, target area, and timing. *Crop Protection*, 174: art. no. 106392. <https://doi.org/10.1016/j.cropro.2023.106392>, Q1

Čepulytė R., Būda V., **2022**. Towards chemical ecology of plant-parasitic nematodes: kairomones, pheromones, and other behaviorally active chemical compounds. *J. Agric. Food Chem.* 1367-1390. IF 5.895; Q1

Būda V., Radžiūtė S., Apšegaitė V., Blažytė-Čereškienė L., Čepulytė R., Bumbulytė G., Mozūraitis R., 2022. Electroantennographic and behavioural responses of European cherry fruit fly, *Rhagoletis cerasi*, to the volatile organic compounds from sour cherry, *Prunus cerasus*, fruit. *Insects* 13(2), 114. IF 3.139; Q1

Campos-Herrera R., Vicente-Díez I., Blanco-Pérez R., Chelkha M., González-Trujillo M. del Mar, Puelles M., Čepulytė R., Pou A., 2021. Positioning entomopathogenic nematodes for the future viticulture: exploring their use against biotic threats and as bioindicators of soil health. *Turkish Journal of Zoology* 45: 335-346. IF 0.932; Q4

Čepulytė R., Danquah W. B., Bruening G., and Williamson V. M., 2018. Potent attractant for root-knot nematodes in exudates from seedling root tips of two different host species. *Scientific Reports, Nature*, 8: 10847. IF 4.011; Q1

Blažytė-Čereškienė, L., Skrodenytė Arbačiauskienė, V., Radžiūtė, S., Čepulytė-Rakauskienė, R., Apšegaitė, V., & Būda, V. (2016). A three-year survey of honey bee viruses in Lithuania. *Journal of apicultural research*, 55(2), 176-184. doi:10.1080/00218839.2016.1211389 [Science Citation Index Expanded (Web of Science); Scopus; Zoological Record] [IF: 1,364; AIF: 1,524; IF/AIF: 0,895; Q2 (2016, InCites JCR SCIE)] [CiteScore: 2,00; SNIP: 1,313; SJR: 1,569; Q1 (2016, Scopus Sources)] [S.fld.: N 012] [Contribution: 0,166]

Būda V., Čepulytė-Rakauskienė R., 2015. The effects of α -solanine and zinc sulfate on the behavior of potato cyst nematodes *Globodera rostochiensis* and *G. pallida*. *Nematology*, 17 (2015) 1105-1111. IF 1.061 ; Q2

Campos-Herrera R., Pūža V., Jaffuel G., Blanco-Peréz R., Čepulytė-Rakauskienė R., Turlings T.J.C., 2015. Unraveling the intraguild competition between *Oscheius* spp. nematodes and entomopathogenic nematodes: implications for their natural distribution in Swiss agricultural soils. *Journal of Invertebrate Pathology*, 132: 216–227. IF 2.198; Q1

Būda, V.; Čepulytė-Rakauskienė, R. The effect of linalool on second-stage juveniles of the potato cyst nematodes *Globodera rostochiensis* and *G. pallida*. *Journal of Nematology*. Marceline: Society of Nematologists. ISSN 0022-300X. 2012, vol. 43, no. 3-4, p. 149-151. [Science Citation Index Expanded (Web of Science); Zoological Record; Biological Abstracts] [IF: 0,333; AIF: 1,521; IF/AIF: 0,218; Q4 (2012, InCites JCR SCIE)] [CiteScore: 0,48; SNIP: 0,487; SJR: 0,308; Q3 (2012, Scopus Sources)] [S.fld.: N 012] [Contribution: 1,000]

Other reviewed scientific publications (books, books' chapters, collections of articles, articles, textbooks and etc.):

Williamson V. M. Čepulytė R., 2017. Assessing attraction of nematodes to host roots using pluronic gel medium. In: Binder B. M. and Schaller G.E. (eds.) *Ethylene Signaling: Methods and Protocols, Methods in Molecular Biology*, Springer Science+ Business Media LLC, 1573, DOI 10.1007/978-1-4939-6854-1_19:261-268 (book chapter).

Other publications

Jogaitė V., Čepulytė R., Stanelis A., Būda V., 2007. Monitoring of *Globodera* spp. in Lithuania using diagnostic morphometric analysis and polymerase chain reaction. *Acta Zoologica Lituanica* 17(2): 184–186.

INTERNSHIP AND TRAINING

2021 01 – 03 Department of Viticulture, Institute of Grapevine and Wine Sciences (CSIC-Universidad de La Rioja-Gobierno de La Rioja), Logroño, Spain.

2019 07 – 09 Pennsylvania State College of Agricultural Sciences, Department of Entomology, Pennsylvania, USA.

2018 08 – 10 Nematology Department, University of California Riverside, USA.

2015 01 – 02 Plant Pathology Department, University of California, Davis, USA).

2014 10 – 11 Neuchâtel University Faculté des Sciences, Institut de Biology, Fundamental and Applied Research in Chemical Ecology.

2013 09 EuroVOL summer school, Neuchâtel University, Faculté des Sciences, Institut de Biology, fundamental and applied research in chemical ecology

Čepulytė R., Tiškevičiūtė D., Apšegaitė V., Osinska E., Būda, V. "Entomopathogenic nematode responses to host-derived volatiles: behavioral and emission patterns of 1-nonene". *ISCE-APACE 2025* Joint Conference of the International Society of Chemical Ecology and Asia-Pacific Association of Chemical Ecologists, Chemical Ecology Down Under: From Molecules to Ecosystems, August 18-22, Christchurch, New Zealand: Abstract book: 162.

Blažytė-Čereškienė L., Budrys E., Orlovskytė S., Tiškevičiūtė D., **Čepulytė R.** 2024. Bičių šeimų atranka Europos tamsiosios medunešės bitės, *Apis mellifera mellifera*, Lietuvos populiacijos palaikymui. Bitininkystės padėtis Lietuvoje. 2024 m. kovo 23 d. Akademija, Kėdainių r. Mokslinė-praktinė konferencija, p. 43-52 (Oral presentation).

Tiškevičiūtė D., **Čepulytė R.**, Radžiūtė S., Orlovskytė S., Būda V., 2024. Efficacy of three EPN species on adult mortality of the invasive pest *Otiorynchus salicicola*. 13th International Conference of Young Scientists 'The Young Scientists for the Advance of Agriculture' AGRISCI 2024, 32 p. (Oral presentation)

Tiškevičiūtė D., **Čepulytė R.**, Radžiūtė S., Būda V. Efficacy of EPNs against invasive pest *Otiorynchus salicicola* adults: Behaviorally active compounds and lethality. The 39th Annual Meeting of the ISCE, 14-18 July 2024, Prague, Czechia: Abstract Book, p. 290.

Čepulytė R., Tiškevičiūtė D., Osinska E., Būda, V. "Responses of three entomopathogenic nematode species from the genus *Steinernema* to ethanol and 1-nonene". The 39th annual meeting of the ISCE, 14-18 July 2024, Prague, Czechia: Abstract book: 279.

Blažytė-Čereškienė L., Budrys E., Orlovskytė S., Tiškevičiūtė D., **Čepulytė R.**, Skrodenytė-Arbačiauskienė V., 2024. Bičių šeimų atranka Europos tamsiosios medunešės bitės, *Apis mellifera mellifera*, Lietuvos populiacijos palaikymui (Search for suitable colonies for the maintenance of the Lithuanian population of the native dark bee *Apis mellifera mellifera*). Lithuanian Beekeepers' Union General Reporting Meeting 23 March 2024. 43 p.

Čepulytė R., Tiškevičiūtė D., Būda, V. 1-Nonene as a putative apneumone in EPN *Steinernema feltiae* and larval cadaver interaction. The 38th annual meeting of the ISCE took place on 23-27 July 2023 in Bengaluru, India: Abstract Number: 107 (oral presentation)

Tiškevičiūtė D., **Čepulytė R.**, Būda V., 2023. Response of Entomopathogenic Nematode *Steinernema feltiae* to 1-Nonene, the Volatile of Insect Cadavers. Open Readings 2023, 370 p.

Campos-Herrera R., González-Trujillo M. del Mar, Vicente-Díez I., Carpentero E., Puellas M., Vaquero E., **Cepulyte R.** "Entomopathogenic nematodes for controlling *Lobesia botrana* in vineyards: fine-tuning of application target area and timing" at the "Meeting of the IOBC-WPRS WG "Integrated Protection in Viticulture" held in Logroño, La Rioja, Spain on October 3-5, 2023.

Čepulytė R., Būda, V., On Chemical Ecology of Plant-parasitic Nematodes. The 37th annual meeting of the ISCE, 8-12 August 2022, Kuala Lumpur, Malaysia: S6-P59:230.

González-Trujillo M. del Mar; **Čepulytė R.**, Vicente-Díez N., Blanco-Pérez R., Chelkha M., Puellas M., Gámez A., Ramos-Sáez de Ojer J. L., Campos-Herrera R., 2021. Screening of adjuvants to enhance the entomopathogenic nematode survival and adherence after aerial application on grapevine leaves. 2021 International Congress on Invertebrate Pathology and Microbial Control & 53rd Annual Meeting of the Society for Invertebrate Pathology. 28th June – 2nd July: 143.

Čepulytė R., Danquah W. B., Bruening G., and Williamson V. M., 2018. Assessing the response of root-knot nematodes to plant semiochemicals. The 34th ISCE Annual Meeting. 12-18 August, Budapest, Hungary: 83.

Williamson V. M. **Čepulytė -Rakauskienė R.**, Danquah W.B., Bruening G., 2016. Assessing the response of root-knot nematodes to plant and nematode semiochemicals. 32nd Symposium of European Society of Nematologists, 28th Aug.- 1st Sept, Braga, Portugal: 41.

Čepulytė -Rakauskienė R., V. M. Williamson., 2016. Investigation of root-knot nematode male behavior in Pluronic gel. Joint meeting of SON/ONTA: 55th annual meeting of Society of Nematologists. and the 48th meeting of the Organization of Nematologists of Tropical America. July 17th-22nd, Montreal, Canada: 66.

Čepulytė-Rakauskienė R., M. Danquah W.B., Bruening G., Williamson V., 2016. Responses of root-knot nematodes to host plant and nematode-generated chemical compounds. 2nd Annual UC Davis Postdoctoral Research Symposium, May 18th.

Čepulytė-Rakauskienė R., Būda V., 2015. Research on sex pheromone of quarantine potato pest –potatocyst nematode *Globodera rostochiensis*. The project "Postdoctoral (post doc) Fellowship Implementation in Lithuania" final conference, 19th-20th of February.

Čepulytė-Rakauskienė R., Būda V., 2014. Chemoecological interactions of plant parasitic nematodes. Advances in Nematology, Linnean Society of London, 16th December, Piccadilly, UK: 25.

Blažytė-Čereškienė L., Skrodenytė-Arbačiauskienė V., Radžiutė S., **Čepulytė-Rakauskienė R., Apšegaitė V., Būda V., 2014.** Deformed wing virus and variation of polyprotein gene sequence in Lithuanian honey bees. Sixth European conference of apidology. 9-11 September 2014, Murcia, Spain: 130.

Blažytė-Čereškienė L., Skrodenytė-Arbačiauskienė V., Radžiutė S., **Čepulytė-Rakauskienė R., Būda V. 2014.** *Nosema* spp. ir bičių virusai Lietuvos bitynuose 2012-2013 m.; poveikis bičių žiemojimui. *Bičių sveikatingumas. Respublikinės mokslinės-praktinės konferencijos medžiaga*, Vilnius, p. 23-33.

Čepulytė-Rakauskienė R. Butkienė R., Būda V., **2014.** Searching for pheromone of *Globodera rostochiensis*. The 30th ISCE Annual Meeting. Meeting Overview, 8-12 July, Urbana-Champaign, Illinois, USA: 130.

Blažytė-Čereškienė L., Skrodenytė-Arbačiauskienė V., Radžiutė S., **Čepulytė-Rakauskienė R., Apšegaitė V., Būda V., 2013.** The spread of *Nosema* spp. and viruses among honeybee (*Apis mellifera* L.) colonies in Lithuania. XXXIII International Apicultural Congress, 29 September - 04 October 2013, Kyiv.

Čepulytė-Rakauskienė R., 2012. Potato cyst nematodes *Globodera rostochiensis* and *Globodera pallida*, and their chemoecological interactions with the host plant. Biofuture. Perspectives of natural and life sciences, December 5, Vilnius: 2–3 (awarded as the best report).

Čepulytė-Rakauskienė R., Būda V., 2012. Activity suppression in second-stage juveniles of the potato cyst nematode *Globodera pallida*. The 28th ISCE Annual Meeting. Meeting Overview, 22–26 July, Lithuania, Vilnius: 109.

Čepulytė-Rakauskienė R., Būda V., 2011. α -Solanine effect on potato cyst nematode *Globodera rostochiensis* and *Globodera pallida* second-stage juveniles. The 27th ISCE Annual Meeting. Meeting Overview, 24–28 July, British Columbia, Canada: 94.

Čepulytė R., Būda V., 2010. Reaction to linalool in two species of potato cyst nematodes *Globodera rostochiensis* and *Globodera pallida*. The 26th ISCE Annual Meeting. Meeting Overview 31 July – 04 August, Tours, France: 258.

PROJECTS

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|------------------|---|
| 2025 | <i>Comparison of pollen spectra collected by two subspecies of Apis mellifera</i> . Implementing institution – Nature Research Centre. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania. |
| 2025 | <i>Studies of the Lithuanian population of the dark European honey bee, Apis mellifera mellifera</i> . Implementing institution – Nature Research Centre. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania. |
| 2024 | Student summer internship organized by the Research Council of Lithuania, <i>What do entomopathogenic nematodes smell underground?</i> (S-SV-24-228), Funded by the Research Council of Lithuania, internship supervisor. Student: Evelina Tiškevičiūtė. |
| 2024–2027 | Projects in the fields of natural, technological, medical, health, and agricultural sciences led by experienced researchers: <i>Infochemicals for environmentally friendly control of Rhagoletis fruit flies (INFOCOR)</i> . Implementing institution – Nature Research Centre. Funded by the Research Council of Lithuania. Project participant. |
| 2024 | <i>Selection of bee colonies suitable for supporting the Lithuanian population of the dark European honey bee, Apis mellifera mellifera, and evaluation of newly arrived swarms</i> . Implementing institution – Nature Research Centre. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania. |
| 2023 | Applied scientific research program for beekeeping and bee products: <i>Search for suitable bee colonies to support the Lithuanian native dark honey bee, Apis mellifera mellifera, population</i> . Implementing institution – Nature Research Centre. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania. |

- 2023–2024** EIP Operational Group project *System for the analysis of natural organic matter in soil (NOMEDA)*. Funding source – European Agricultural Fund for Rural Development and the State Budget of Lithuania. Project participant.
- 2023–2026** Projects in the fields of natural, technological, medical, health, and agricultural sciences led by experienced researchers: *Nature-based solutions for the monitoring and control of the pest insect Otiorhynchus armadillo (SOLO)*. Implementing institution – Nature Research Centre. Principal project participant. Funded by the Research Council of Lithuania.
- 2022** Applied scientific research program for beekeeping and bee products: *Study of microsporidian and viral infections in Lithuanian dark honey bee colonies used for breeding and selection*. Implementing institution – Nature Research Centre. Project leader. Funded by the Research Council of Lithuania.
- 2022** *Morphometric evaluation of selection effectiveness in the developing Lithuanian dark honey bee population and search for new colonies to support it*. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania.
- 2021** Applied scientific research program for beekeeping and bee products: *Search for potential sites for the conservation of Lithuanian native honey bees*. Implementing institution – Nature Research Centre. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania.
- 2021** Applied scientific research program for beekeeping and bee products: *Identification of nuclear intron haplotypes characteristic of the Lithuanian native honey bee population*. Implementing institution – Nature Research Centre. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania.
- 2020–2021** EIP Operational Group project: *Innovative system for bee hive protection and monitoring*. Implementing institution – Nature Research Centre with partners. Nature Research Centre project component participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania.
- 2020** Applied scientific research program for beekeeping and bee products: *Assessment of the hybridization of Lithuanian native honey bees with imported subspecies using intron sequences*. Implementing institution – Nature Research Centre. Project participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania.
- 2018–2019** EIP Operational Group project: *Development of an innovative integrated quality control system for grain and feed in ground storage facilities*. Implementing institution – UAB “ART21”, partner – Nature Research Centre. Nature Research Centre - project component participant. Funded by the National Paying Agency under the Ministry of Agriculture of the Republic of Lithuania.
- 2018–2021** Project funded by the European Union Structural Funds measure “Improvement of researchers’ qualifications through high-level R&D projects”: *The role of metabolites in the tritrophic plant–microorganism–phytophage interaction (DOT_METABOL)*. Implementing institution – Nature Research Centre. Project participant. Funded by the Research Council of Lithuania.
- 2012–2014** National Research Program “*Lithuanian Ecosystems: Climate Change and Human Impact*” project *Detection and spread patterns of exotic pathogens of honey bees, Apis mellifera, in Lithuania (VIRUSAI)*. Implementing institution – Nature Research Centre. Project participant. Funded by the Research Council of Lithuania.

PARTICIPATION IN THE STUDY PROCESS

2023–2027 – Supervisor of doctoral studies. Thesis topic: “*Interdisciplinary studies of entomopathogenic nematodes: biodiversity in Lithuania and chemoeological interactions*.” Doctoral student – D. Tiškevičiūtė; second supervisor – Prof. V. Būda. Doctoral program, P-PAD-23-81, Research Council of Lithuania.

2019, a member of the doctoral dissertation defense committee for D. Aleknavičius: “Features of the chemoeology of *Rhagoletis batava* Hering (Diptera, Tephritidae).”

Member of the doctoral examination committee in *Chemical Ecology*, **2023–2025**.

Supervision of Bachelor's and Master's Theses

Supervisor of Bachelor's thesis, 2025–2026 (Biology, GMC, VU)

Supervisor of Master's thesis, 2022–2024 (Microbiology, GMC, VU)

Supervisor of Master's thesis, 2021–2023 (Microbiology, GMC, VU)

Supervisor of three Bachelor's theses, 2013–2015 (Ecology and Environmental Science, GMF, VU)

OTHERS

Expert Activity

Expert for the Dutch Research Council (NWO) Talent Programme **2022** project.

Membership in Organizations

International Society of Chemical Ecology (ISCE)

Awards

2012 - First prize award of the Lithuanian Academy of Sciences for the best Ph.D. thesis for Young Scientist Research entitled "Potato cyst nematodes *Globodera rostochiensis* and *Globodera pallida*, and their chemoeological interactions with the host plant".

2007 - Award of the Lithuanian Academy of Sciences for the M.Sc. thesis for Young Scientist Research entitled "Golden potato cyst nematode (*Globodera rostochiensis*) identification, pathotypes and distribution, and pale potato cyst nematode (*Globodera pallida*) state in Lithuanian agroecosystems".