

# Rasa Čepulytė

## CONTACT INFORMATION

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## EDUCATION AND ACADEMIC DEGREE

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**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

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**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** - postdoc, Plant Pathology Department, University of California, Davis, USA;

**2013 – 2015** - postdoc, Nature Research Centre Institute of Ecology, Laboratory of Chemical and Behavioral Ecology;

**2013 – 2015** - lecturer, Vilnius University;

**2010 – 2013** - junior researcher, Nature Research Centre Institute of Ecology, Laboratory of Chemical and Behavioral Ecology;

**2007 – 2013** - senior specialist, State Plant Service under the Ministry of Agriculture, Phytosanitary Research Laboratory.

## **RESEARCH INTERESTS**

Chemical and behavioral ecology of soil nematodes.

## **PUBLICATIONS**

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

1. 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
2. Būda V., Radžiutė 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
3. Campos-Herrera R., Vicente-Díez I., Blanco-Pérez R., Chelkha M., González-Trujillo M. del Mar, Puellas 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
4. 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
5. Blažytė-Čereškienė, L., Skrodenytė Arbačiauskienė, V., Radžiutė, 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]
6. Būda V., Čepulytė-Rakauskienė R., 2015. The effects of  $\alpha$ -solanine and zinc sulphate on the behavior of potato cyst nematodes *Globodera rostochiensis* and *G. pallida*. *Nematology*, 17 (2015) 1105-1111. IF 1.061 ; Q2
7. 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
8. 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.):***

1. 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).

**INTERNSHIP AND TRAINING**

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**2021 01 – 03** Department of Viticulture, Institute of Grapevine and Wine Sciences (CSIC-Universidad de La Rioja-Gobierno de La Rioja), Logroño, Spain, chemical ecology of soil nematodes;

**2019 07 – 09** Pennsylvania State College of Agricultural Sciences, Department of Entomology, Pennsylvania, USA, chemical ecology of soil nematodes;

**2018 08 – 10** Nematology Department, University of California Riverside, USA, chemical ecology of soil nematodes;

**2015 01 – 02** Plant Pathology Department, University of California, Davis, USA), chemical ecology of plant parasitic nematodes;

**2014 10 – 11** Neuchâtel University Faculte des Sciences, Institute de Biology, Fundamental and Applied Research in Chemical Ecology, chemical ecology of invertebrates;

**2013 09** EuroVOL summer school, Neuchâtel University Faculte des Sciences, Institute de Biology, fundamental and applied research in chemical ecology

## **PARTICIPATION IN SCIENTIFIC CONFERENCES**

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1. **Čepulytė R.**, Būda, V., On Chemical Ecology of Plant-parasitic Nematodes. The 37th annual meeting of the ISCE took place from 8-12 August **2022** in Kuala Lumpur, Malaysia: S6-P59:230.
2. González-Trujillo M. del Mar; **Čepulytė R.**, Vicente-Díez N., Blanco-Pérez R., Chelkha M., Puelles 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.
3. **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.
4. 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.
5. **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 48th meeting of Organization of Nematologists of Tropical America. July 17th-22nd, Montreal, Canada:66.
6. **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.
7. **Čepulytė-Rakauskienė R.**, Būda V., **2015**. Research on sex pheromone of quarantine potato pest –potato cyst nematode *Globodera rostochiensis*. The project "Postdoctoral ( postdoc) Fellowship Implementation in Lithuania" final conference, 19th-20th of February.
8. **Čepulytė -Rakauskienė R.**, Būda V., **2014**. Chemoecological interactions of plant parasitic nematodes. Advances in Nematology, Linnean Society of London, 16th December, Piccadilly, UK: 25.
9. Blažytė-Čereškienė L., Skordenytė-Arbačiauskienė V., Radžiūtė 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.
10. **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.
  11. 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. XXXXIII International Apicultural Congress, 29 September— 04 October 2013, Kyiv.
  12. **Čepulytė-Rakauskienė R.**, **2012**. Potato cyst nematodes *Globodera rostochiensis* and *Globodera pallida*, and their chemoeological interactions with the host plant. Biofuture. Perspectives of natural and life sciences, December 5, Vilnius: 2–3 (awarded as the best report).
  13. **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.
  14. **Čepulytė-Rakauskienė R.**, Būda V., **2011**.  $\alpha$ -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.
  15. **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.

## PARTICIPATION IN THE STUDY PROCESS

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### Supervision of bachelor and master students:

Supervising two master students: **2021-2023** and **2022-2024**.

**2019** – a committee member of D. Aleknavičius doctoral dissertation defence.

## OTHERS

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**2022** - Project expert, Dutch Research Council (NWO), Talent Programme 2022.

**2012** - First prize award of 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 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”.