

Vincas Būda

CONTACT INFORMATION

Address Akademijos Str. 2, Vilnius LT-08412, Lithuania
Tel. no.: +370 685 84622
E-mail: vincas.buda@gamtc.lt

EDUCATION AND ACADEMIC DEGREE

- 1997 Dr. Habilitus. State Research Institute of Ecology, Vilnius. Title of habilitation work: „Chemical communication in Lepidopterans (biological, ecological and chemical aspects)“
- 1972 Vilnius University, Biology-Biophysics, Higher education

PROFESSIONAL EXPERIENCE

- 1972 09 – now Technician, PhD student, Younger Researcher, Researcher, Senior Researcher, Chief Researcher, Head of Laboratory of Chemical and Behavioural Ecology, Scientific Secretary, Deputy Director for Science, Director. At present – Chief Researcher at the Institute of Ecology, Nature Research Centre.

RESEARCH INTERESTS

Chemical ecology of insects, plants, microorganisms and mammals, pheromones, attractants and repellents, behaviour control, kairomones, tritrophic interactions by means of chemical compounds, volatile metabolites of microorganisms, metabolomics.

PUBLICATIONS

Scientific papers published in journals (books), indexed in „Clarivate Analytics Web of Science“ database (with citation index, during last 5 years):

1. **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*, 2022, 13, 114. <https://doi.org/10.3390/insects13020114>
2. 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
3. Blažytė-Čereškienė L., Aleknavičius D., Apšegaitė V., **Būda V.** 2022. Response of Parasitic Wasp *Cotesia glomerata* L. (Hymenoptera: Braconidae) to Cabbage Plants of Two Varieties: Olfactory Spectra of Males and Females. *Journal of Economic Entomology*, 115(5), 1464–1471. <https://doi.org/10.1093/jee/toac135>
4. Blažytė-Čereškienė L., **Būda V.**, Apšegaitė V., Radžiutė, S., Būdienė, J., Aleknavičius D., Mozūraitis R. 2022. Sea Buckthorn *Hippophae rhamnoides* and Fruit Flies *Rhagoletis batava*: Search for Volatile Semiochemicals Involved in Pest Attraction. *Horticulturae* 2022, 8, 179. <https://doi.org/10.3390/horticulturae8020179>
5. Mozūraitis R., Apšegaitė V., Radžiutė S., Aleknavičius D., Būdienė J., Stanevičienė R., Blažytė-Čereškienė L., Servienė E., **Būda, V.** 2022. Volatiles Produced by Yeasts Related to *Prunus*

- avium* and *P. cerasus* Fruits and Their Potentials to Modulate the Behaviour of the Pest *Rhagoletis cerasi* Fruit Flies. *Journal of Fungi*, 8 (2), 95. <https://doi.org/10.3390/jof8020095>
6. Žalnierius, T., Šveikauskas, V., Aphalo, P.J., Gavelienė, V., **Būda, V.**, Jurkonienė, S. (2022) Gibberellic acid (GA(3)) applied to flowering *Heracleum sosnowskyi* decreases seed viability even if seed development is not inhibited. *Plants*, 11 (3): art. no. 314. <https://doi.org/10.3390/plants11030314>
 7. **Būda V.**, Blažytė-Čereškienė L., Radžiutė S., Apšegaitė V., Schultz S., Stamm P., Aleknavičius D., Mozūraitis R. 2020. Male-produced (-)- δ -heptalactone as pheromone of the fruit fly *Rhagoletis batava* (Diptera: Tephritidae), a pest of sea buckthorn berries. *Insects*, 11, 138. <https://doi:10.3390/insects11020138>
 8. Lukša J., Vepškaitė-Monstavičė I., Apšegaitė V., Blažytė-Čereškienė L., Stanevičienė R., Strazdaitė-Žielienė Ž., Ravoitytė B., Aleknavičius D., **Būda V.**, Mozūraitis R., Servienė E. 2020. Fungal microbiota of sea buckthorn berries at two ripening stages and volatile profiling of potential biocontrol yeasts. *Microorganisms*, 8(3), 456; <https://doi:10.3390/microorganisms8030456>
 9. Mozūraitis, R., Aleknavičius, D., Vepškaitė-Monstavičė, I., Stanevičienė, R., Noushin Emami, S., Apšegaitė, V., Radžiutė, S., Blažytė-Čereškienė, L., Servienė, E., **Būda, V.** 2020. *Hippophae rhamnoides* berry related *Pichia kudriavzevii* yeast volatiles modify behaviour of *Rhagoletis batava* flies, *Journal of Advanced Research*, 21: 71-77. <https://doi.org/10.1016/j.jare.2019.08.001>
 10. Blažytė-Čereškienė L., Apšegaitė V., **Būda V.** 2019. The choice between flowers of closely related plant species by generalist pollinator: identification of relevant VOCs. *Arthropod-Plant Interactions*. 13(5): 735–743. <https://doi.org/10.1007/s11829-019-09702-2>
 11. Norton M., Baldi A., **Buda V.**, et al. Serious mismatches continue between science and policy in forest bioenergy. *GCB Bioenergy*. 2019;00:1–8. <https://doi.org/10.1111/gcbb.12643>
 12. Blažytė-Čereškienė L., Apšegaitė V., **Būda V.** 2019. The choice between flowers of closely related plant species by generalist pollinator: identification of relevant VOCs. *Arthropod-Plant Interactions*. 13(5): 735–743. <https://doi.org/10.1007/s11829-019-09702-2>
 13. Koryznienė D., Jurkonienė S., Žalnierius T., Gavelienė V., Jankovska-Bortkevičė E., Bareikienė N., **Būda V.** 2019. *Heracleum sosnowskyi* seed development under the effect of exogenous application of GA₃. *Peer J.*, 7:e6906 <http://doi.org/10.7717/peerj.6906>
 14. Mozūraitis R., Kutra J., Borg-Karlson A.-K., **Būda V.** Dynamics of putative sex pheromone components during heat periods in estrus-induced cows. *J. Dairy Sci.*, 2017, 100, 7686-7695.
 15. Aleknavičius D., **Būda V.** Trapping peculiarities, flight and mating dynamics of sea buckthorn fruit fly (*Rhagoletis batava*) in Lithuania. *Zemdirbyste-Agriculture*, 2019, vol. 106, No 1, 81-86 p.

Patents (during the last 5 years):

1. **Būda V.**, Butkienė R., Blažytė-Čereškienė L., Pečiulytė D., Apšegaitė V. (2021) Method for detection of mould contamination in grain. European patent EP3400438B1 <https://data.epo.org/publication-server/document?iDocId=6598467&iFormat=0>
2. **Būda V.**, Butkienė R., Blažytė-Čereškienė L., Pečiulytė D., Apšegaitė V. (2017) Grūdų užteršimo pelėsiniais grybais aptikimo būdas. Lietuvos valstybinis patentų biuras. Patentų Nr. 6458. http://www.vpb.lt/db_patentai/rezult-singl.php?id=X531369
3. **Būda V.**, Butkienė R., Blažytė-Čereškienė L., Pečiulytė D., Apšegaitė V. (2017) Method for detection of mould contamination in grain. Application number PCT/IB2016/051320. Publication number WO2017118881 A1. The data of publication 2017 July 13. <https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2017118881>

Monographs, books (during the last 5 years):

1. **Būda Vincas**, Pacevičius Arvydas. Mykolas Girdvainis (1841-1924) autobiografija. Michal Girdwojń (1841-1924) autobiografia. V., VU Publisher, 2018, 128 p.

2. **Būda V.**, Šveistytė A., Judžentis A., Vaitonis G. - eds. of the book “Algimantas Jakimavičius: on the path of entomology, history of science and bibliography”. Vilnius, 2019, compiled by S. Dagienė, A. Trumpienė, 176 p.

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

1. **Būda V.** Academician Mečislovas Žalakevičius – 70. In book: „Academician Mečislovas Žalakevičius. Captivated by the magic of bird migration“ Vilnius., 2019, 5-8 p.
1. **Būda V.** The 80th anniversary of Dr. Algimantas Jakimavičius is an opportunity to review the activities and the harvest of his works. In book: Algimantas Jakimavičius: on the path of entomology, history of science and bibliography. Vilnius, 2019, compiled by S. Dagienė, A. Trumpienė, 8-17 p.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS (*during the last 5 years*):

Experimental development work fulfilling the Frascati Manual criteria, other experimental development work

Project Leader

- | | |
|-----------|--|
| 2019-2020 | Disruption of mating behaviour as innovative method for codling moth (<i>Cydia pomonella</i>) pest bio control. Nr. 14PA-KK-18-1-03469-PR001, Developer: UAB “Vijolina” |
| 2017-2018 | Studies on the effects of light, electromagnetic field and semiochemicals on insect behaviour for the development of an automated breeding technology for the yellow mealworm beetle. Client: „MKDS“. Developer: UAB Innovative firm „MKDS“. |

Principal Investigator

- | | |
|-----------|---|
| 2018 | Spectrometric analyses of honey and contaminants used in honey falsification. Developer: UAB „Spektrolabas“. |
| 2018 | Development of a methodology for the establishment of disease diagnosis sites with natural infection, artificial and controlled infection. Developer: UAB ART21. |
| 2018 | Investigating the relationship between the reflected light properties of oats and their chemical and physiological properties. Developer: UAB ART21. |
| 2017 | Analysis of the composition, nature and extent of potential contamination of compounds emitted by beeswax and assessment of its suitability for use in beekeeping. Developer: UAB „Bičių korys“. |
| 2014-2019 | Detection of microsporidia, <i>Nosema apis</i> and <i>N. ceranae</i> , and bee viruses in honey bees, <i>Apis mellifera</i> , by molecular methods. Developer: Lietuvos agrarinių ir miškų mokslų centro Žemdirbystės institutas. |

Participation in international research programmes and projects

Project coordinator

- | | |
|-----------|---|
| 2020-2022 | Development of a prototype spectrometric technology and methodology for on-site preventive oyster quality assessment (SOQA). Project No 01.2.2-MITA-K-702-07-002 funded by the EU Structural Funds under the EU Investment Facility "Commercialisation and internationalisation of R&D results" (EUREKA). The project is carried out with partners ART21 UAB and Croatia. |
|-----------|---|

- 2019-2021 Horizon 2020 „Internet of Food and Farm 2020, Within Field Management Zoning – Baltic (IoF2020, WFMZ – Baltic). <https://www.iof2020.eu/use-case-catalogue/arable/within-field-management-zoning-baltics>

Participation in national research programmes and projects

Principal Investigator

- 2020-2022 EIP Action Group project "Innovative beehive protection and monitoring system". Implementing Authority - NRC and partners. NRC Part Leader. Funded by the Ministry of Agriculture of the Republic of Lithuania. <https://www.kaimotinklas.lt/lt/projektai/inovatyvi-biciu-aviliu-apsaugos-stebesenos-sistema>
- 2019 Applied research programme project on beekeeping and bee products "Possible influence of hygienic behaviour of bees on the prevalence of viruses and microsporidia in honey bee colonies". Funded by the Ministry of Agriculture of the Republic of Lithuania.
- 2018-2019 EIP Action Group project "Development of an integrated pest management system using aero-distance-spectrometric techniques". Executing agency - Chamber of Agriculture, partner - NRC. Head of the NRC part. Funded by the Ministry of Agriculture of the Republic of Lithuania. <https://www.kaimotinklas.lt/lt/projektai/integruotos-kenksminguju-organizmu-kontroles-sistemas-sukurimas-naudojantis-aerodistanciniais-spektrometriniais-metodais>
- 2018-2019 EIP Action Group project "Development of an innovative integrated quality control system for grain and feed for ground storage". Implementing institution - ART21, partner - NRC. NRC Part Manager. Funded by the Ministry of Agriculture of the Republic of Lithuania. <https://www.kaimotinklas.lt/lt/projektai/inovatyvios-kompleksines-grudu-ir-pasaru-kokybes-kontroles-sistemas-sukurimas-antzeminiams-sandeliams>
- 2018 Applied research programme project on beekeeping and bee products: 'Does hygienic behaviour of bees influence the prevalence of viruses and microsporidia in honey bee colonies?'. Funded by the Ministry of Agriculture of the Republic of Lithuania.
- 2018-2021 The project "The role of metabolites in the tritrophic plant-microorganism-phytophagous ecosystem (DOT_METABOL)", funded by the EU Structural Funds: "Improvement of the qualification of scientists in the framework of high-level RTD projects". Funded by the Lithuanian Research Council.

Project leader

- 2022 Applied research programme project on beekeeping and bee products: 'Prevalence of nucleolar DNA markers specific to Lithuanian native bees in colonies used for selection'. Funded by the Ministry of Agriculture of the Republic of Lithuania.
- 2022 Applied research programme project on beekeeping and bee products: 'Study of microsporidian and viral infections in Lithuanian dark bee colonies used for breeding and selection'. Funded by the Ministry of Agriculture of the Republic of Lithuania.
- 2021 Applied research programme project on beekeeping and bee products "Haplotyping of nucleolar introns characteristic of the Lithuanian native bee population". Funded by the Ministry of Agriculture of the Republic of Lithuania.

- 2020 Applied research programme project on beekeeping and bee products: "Assessment of hybridisation of Lithuanian native bees with imported bees using intron sequences". Funded by the Ministry of Agriculture of the Republic of Lithuania.

PARTICIPATION IN SCIENTIFIC CONFERENCES (during tghē last 5 years):

International scientific conferences:

1. Blažytė-Čereškienė L., **Būda V.**, Apšegaitė V., Radžiūtė S., Būdienė J., Aleknavičius D., Mozūraitis R. 2022. VOCs of sea buckthorn fruits attractive for fruit fly *Rhagoletis batava*: search for kairomone compounds. 3rd Joint Meeting of ISCE-APACE, Managing sustainability in challenging times. August 8-12, 2022, Kuala Lumpur, Malaysia, Abstract Book, [S9-P58] p. 233. <https://www.isceapacejointmeeting.com/>
2. Blažytė-Čereškienė L., Radžiūtė S., Apšegaitė V., Ravoitytė B., Aleknavičius D., Čepulytė R., Servienė E., **Būda V.**, Mozūraitis R. 2021. Behavioural responses of *Rhagoletis cerasi* flies to volatiles from the yeasts populating cherry berries. 36th Annual Meeting of the International Society of Chemical Ecology CHEMICAL ECOLOGY AND SUSTAINABLE DEVELOPMENT. September 5-10, 2021, Stellenbosch, South Africa. Programme and Book of Abstracts, 164. <https://isce2021.carlamani.com/ISCE2021-Programme-and-Book-of-Abstracts.pdf>
3. Mozūraitis R., Blažytė-Čereškienė L., Radžiūtė S., Apšegaitė V., Stamm P., Schulz S., Aleknavičius D., **Būda V.** 2021. (S)-(-)- δ -Heptalactone, an aggregation pheromone of fruit fly *Rhagoletis batava*, a *Hippophae rhamnoides* berries pest. 36th Annual Meeting of the International Society of Chemical Ecology CHEMICAL ECOLOGY AND SUSTAINABLE DEVELOPMENT. September 5-10, 2021, Stellenbosch, South Africa. Programme and Book of Abstracts, 91. <https://isce2021.carlamani.com/ISCE2021-Programme-and-Book-of-Abstracts.pdf>
4. Servienė E., Stanevičienė R., Vepštaitė-Monstavičė I., Lukša J., Strazdaitė-Žielienė Ž., Apšegaitė V., Butkienė R., Aleknavičius D., Blažytė-Čereškienė L., **Būda V.**, Mozūraitis R. 2019. Sea buckthorn berry-related yeasts and their volatiles. FEBS3+conference of Latvian, Lithuanian and Estonian Biochemical societies, June 17-19, 2019, Riga, Latvia. Book of Abstracts, 107-108.
5. Mozūraitis R., Aleknavičius D., Radžiūtė S., Blažytė-Čereškienė L., Servienė E., **Būda V.** 2019. Effect of the volatiles released by yeasts related to sea buckthorn *Hippophae rhamnoides* berries on behaviour of *Rhagoletis batava* flies ISCE 2019 Annual Meeting, Atlanta, GA, June 2-6, 2019. Poster Presentations. P. 66. <https://isce2019.biosci.gatech.edu/wp-content/uploads/sites/848/2019/05/ABSTRACT-BOOK-POSTER-ABSTRACT-TEMPLATE3818-2.pdf>
6. **Būda V.**, Aleknavičius D., Apšegaitė V., Radžiūtė S., Blažytė-Čereškienė L., Servienė E., Butkienė R. 2019. Is buckthorn and fruit fly interaction mediated by yeasts? ISCE 2019 Annual Meeting, Atlanta, GA, June 2-6, 2019. Poster Presentations. P. 15. <https://isce2019.biosci.gatech.edu/wp-content/uploads/sites/848/2019/05/ABSTRACT-BOOK-POSTER-ABSTRACT-TEMPLATE3818-2.pdf>
7. Blažytė-Čereškienė L., Apšegaitė V., Mozūraitis R., **Būda V.** 2018. New compound in chemical interaction: *Ips typhographus* and *Picea abies*. 34th Annual Meeting of the International Society of Chemical Ecology 12-18 August 2018, Budapest, Hungary. Abstract book p. 69.
8. Blažytė-Čereškienė L., Tamašauskienė D., **Būda V.** 2018. Detection of viruses in virgin and mated queens of the honey bee *Apis mellifera* L. EurBee 8. 8th Congress of Apidology, 18-20 September 2018, Ghent, Belgium. Program & Abstract Book, p. 156.

9. **Būda V.**, Jakimavičius A. Jurgis Elisonas (1889-1946): Fosterer of Lithuanian Natural and Educational Science and Culture. In: Abstracts of the 29th Baltic Conference on the History of Science. 19-21 September 2019, Vilnius, Lithuania, 16-17 p.
10. Pacevičius A., **Būda V.** Autobiography of Mykolas Girdvainis as a Document of Scholarly Communication in Europe at the Turn of the 20th Century. In: Abstracts of the 29th Baltic Conference on the History of Science. 19-21 September 2019, Vilnius, Lithuania, 52 p.
11. Petrauskienė L., **Būda V.** The Documentary Film Recordings by Biologist Pranciškus Baltrus Šivickis. In: Abstracts of the 29th Baltic Conference on the History of Science. 19-21 September 2019, Vilnius, Lithuania, 55-56 p.
12. **Būda V.** Academic achievements of Count Konstanty Tyzenhauz (1786-1853): in Vilnius, in exile and again in Vilnius“. The international conference dedicated to the 220th birth anniversary of Ignacy Domeyko „Ignacy Domeyko and the intellectual environment of Vilnius at the beginning of the 19th century. Vilnius, 2022-10-20.

PARTICIPATION IN THE STUDY PROCESS (during tghelast 5 years):

Participation in PhD committees:

Joint Vilnius University and Nature Research Centre Doctoral Committee on Ecology and Environmental Science. Chairman of the committee;

Joint Vytautas Magnus University and Nature Research Centre Doctoral Committee on Biology. Member of the committee.

Member of PhD students' Examination Board. The subjects: Chemical Ecology; Behavioural Ecology.

Supervision of PhD students:

Science area: *Natural Sciences (N000)*. Science field: *Ecology and Environmental Science (N012)*

Dominykas	Thesis: „Chemoecological peculiarities of <i>Rhagoletis batava</i>	2015-10-01 –
Aleknavičius	Hering (Diptera, Tephritidae)“	2019-09-30

Gabrielė	The topic of the planned thesis: „Chemoecological aspects of	2021-10-01 –
Bmbulytė	yellow mealworm, <i>Tenebrio molitor</i> “	2025-09-30

Scientific consultant:

Tautvydas	Disertacijos tema: „Sosnovskio barščio sėklų formavimosi	2019-10-01 –
Žalnierius	valdymas fiziologiškai aktyviomis medžiagomis“	2023-09-30

Chair and member of the dissertation defence council:

Science area: *Natural Sciences*. Science field: *Ecology and Environmental sciences (N012)*

Raminta	Disertacijos tema: „Žmonių ir gyvūnų paleoekologija mitybos	2022
Skipitytė	aspektu: stabilijų izotopų tyrimai“	2019
Tomas	Disertacijos tema: „Daugianarių cheminių mišinių poveikis	
Makaras	skirtingų žuvų rūšių elgsenos, fiziologiniams ir biocheminiams rodikliams“	

Science area: *Natural Sciences*. Science field: *Biology (N010)*

Kamilė Klepeckienė Thesis: „Deer keds parasitizing cervids of Lithuania and Norway and their infestation with pathogens“ 2020

Evelina Kaminskienė Thesis: „Diversity, molecular characterization and associated pathogens of Laelapidae (Acari: Mesostigmata) mites from small rodents“ 2021

OTHER (during the last 5 years):

Membership in scientific societies:

International Society of Chemical Ecology, Lithuanian Entomological Society, Lithuanian Scientists' Union.

Publication of scientific popular papers (all in Lithuanian):

1. Būda V. Vytauto Kontrimavičiaus Sibiras. Mokslo Lietuva, 2021 Nr 21, 1,6,7 p.
2. Būda V. Vytauto Kontrimavičiaus Sibiras. Mokslo Lietuva, 2021 Nr 22, 8,9 p.
3. Būda V. Vytauto Kontrimavičiaus Sibiras. Mokslo Lietuva, 2022 Nr 1, 8,9 p.
4. Būda V. Vytauto Kontrimavičiaus Sibiras. Mokslo Lietuva, 2022 Nr 2, 8,9 p.
5. Būda V. Meno kolekcininkų dovana. Mokslo Lietuva, 2022 Nr. 19 (706), 10 p.
6. Būda V. Dalė Pečiulytė. Lietuvių visuotinė enciklopedija.
7. Būda V. Pranciškus Puidokas. Lietuvių visuotinė enciklopedija
8. Būda V. Gražina Vaitkevičienė. Lietuvių visuotinė enciklopedija
9. Būda V. Antanas Markevičius. Lietuvių visuotinė enciklopedija
10. Būda V. Paulius Ciplijauskas. Lietuvių visuotinė enciklopedija
11. Būda V. Petras Balčikonis. Lietuvių visuotinė enciklopedija
12. Būda V. Alius Ulevičius. Lietuvių visuotinė enciklopedija
13. Būda V. Marazminai. Lietuvių visuotinė enciklopedija
14. Būda V. Antena -os. Lietuvių visuotinė enciklopedija
15. Būda V. Dūzgai. Lietuvių visuotinė enciklopedija
16. Būda V. Sensilė. Lietuvių visuotinė enciklopedija
17. Jakimavičius A., **Būda V.** Jurgis Elisonas – didis lietuvis. Jis – ir Lietuvos gamtos mokslo bei kultūros puoselėtojas. Žaliasis pasaulis. 2019.10-17, 1, 3, 8 p.
18. **Būda V.** Vasario 16-oji ir Pranciškus Baltrus Šivickis. Lietuvos mokslų akademijos žinios, 2019, Nr 2 (88) 23-24 p.
19. **Būda V.**, Kaunas D., Pacevičius A. Humanitarinių ir socialinių mokslų šaltiniotyra. Lietuvos mokslų akademijos žinios, 2019, Nr 1 (87) 15-16 p.
20. **Būda V.**, Šveistytė A., Judžentis A., Vaitonis G. – red. kolegija. Knygos “Algimantas Jakimavičius: entomologijos, Mokslo istorijos ir bibliografijos keliais”. V., 2019, sudarė S. Dagienė, A. Trumpienė, 176 p. Blažytė-Čereškienė L. 2018. Vidurio Europos tamsioji medų nešanti bitė, *Apis mellifera mellifera* – vietinė Lietuvos bitė, kurią turėtume išsaugoti. Lietuvos bitininkas. Nr. 1 p. 24-27.

