

Birutė Karpavičienė

CONTACT INFORMATION

Address Žaliųjų Ežerų Str. 47, Vilnius LT-08406, Lithuania
Tel. no.: +370 5 272 99 30
E-mail: birute.karpaviciene@gamtc.lt
<https://orcid.org/0000-0001-5620-5775>
www.researchgate.net/profile/Birute-Karpaviciene
<https://lt.linkedin.com/in/birutė-karpavičienė-8408338/>

EDUCATION AND ACADEMIC DEGREE

2007 PhD in Biomedical Sciences (Botany – 04 B) (Vilnius University and Institute of Botany).
Thesis topic “Peculiarities of the distribution, biology and ecology of *Allium* species in Lithuania”, scientific advisor – prof. habil. dr. J. R. Naujalis.
Research area: phytosociology, plant population biology and ecology, karyology and morphology.

1981–1986 Vilnius University, Biology.
The topic of the diploma thesis “Characteristics of the ecology and structure of fern phytocoenotic populations in south-eastern Lithuania”.
Research field: phytosociology, plant population biology and ecology.

PROFESSIONAL EXPERIENCE

2016 11 – iki dabar **Senior researcher**
Laboratory of Economic Botany, Nature Research Centre

2007 11 – 2016 11 **Researcher**
Laboratory of Economic Botany, Institute of Botany (since 2010 01 01 – Institute of Botany, Nature Research Centre)

1999 03 – 2007 11 **Junior researcher**
Laboratory of Economic Botany, Institute of Botany

1989 09 – 1999 03 **Senior laboratory assistant**
Laboratory of Economic Botany, Institute of Botany

1986 09 – 1989 08 **Biologijos ir chemijos mokytoja**
Vilkaviškis district Gižai secondary school

RESEARCH INTERESTS

Ecology of medicinal and aromatic plants, population biology, karyology, morphology, ethnobotany, phytosociology, conservation of plant genetic resources, biodiversity. determination of patterns of bioactive substance accumulation in plants, biostatistics.

PUBLICATIONS

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

1. **Karpavičienė B.** 2022. Traditional uses of medicinal plants in South-Western part of Lithuania. *Plants* 11, 2093. <https://doi.org/10.3390/plants11162093>.

2. Radušienė J., **Karpavičienė B.**, Marksa M., Ivanauskas L., Raudonė L. 2022. Distribution patterns of essential oil terpenes in native and invasive *Solidago* species and their comparative assessment. *Plants*, 11, 1159. <https://doi.org/10.3390/plants11091159>.
3. Labokas J., **Karpavičienė B.** 2021. Development of a methodology for maintenance of medicinal plant genetic reserve sites: a case study for Lithuania. *Plants*, 10, 658. <https://doi.org/10.3390/plants10040658>.
4. Maršalkienė N., Žilėnaitė L., **Karpavičienė B.** 2020. Oil content and composition in seeds of *Camelina sativa* and *Crambe abyssinica* cultivars. *J. Elem.*, 25(4): 1399–1412. <https://doi.org/10.5601/jelem.2020.25.3.2023>.
5. Radušienė J., Marksa M., **Karpavičienė B.** 2018. Assessment of *Solidago* × *niederederi* origin based on the accumulation of phenolic compounds in plant raw materials. *Weed Science*, 66: 324–330. <https://doi.org/10.1017/wsc.2018.8>.
6. **Karpavičienė B.** 2017. Causes of variation in sexual and asexual reproduction in diploid and triploid populations of *Allium scorodoprasum*. *Plant Systematics and Evolution*, 303(1): 105–115. <https://doi.org/10.1007/s00606-016-1355-x>.
7. **Karpavičienė B.** Radušienė J. 2016. Morphological and anatomical characterization of *Solidago* × *niederederi* and other sympatric *Solidago* species. *Weed Science*, 64(1): 61–70. <http://dx.doi.org/10.1614/WS-D-15-00066.1>.
8. Odabas M.S., Radušienė J., **Karpavičienė B.**, Camas N. 2015. Prediction model of the effect of light intensity on phenolic contents in *Hypericum triquetrifolium* Turra. *Bulgarian Chemical Communications*. 47(2): 467–471.
9. Radušienė J., Marksa M., Ivanauskas L., Jakstas V., **Karpavičienė B.** 2015. Assessment of phenolic compound accumulation in two widespread goldenrods. *Industrial Crops and Products*, 63: 158–166. <https://doi.org/10.1016/j.indcrop.2014.10.015>.
10. **Karpavičienė B.** 2013. Geographical separation of diploid and triploid cytotypes of *Allium scorodoprasum* in Lithuania. *Biologia*, 68(4): 606–612. <https://doi.org/10.2478/s11756-013-0186-2>.
11. Çırak C., Radušienė J., **Karpavičienė B.**, Çamaş N., Odabaş M.S. 2013. Changes in phenolic content of wild and greenhouse-grown *Hypericum triquetrifolium* during plant development. – *Turkish Journal of Agriculture and forestry*, 37: 307–314. <https://doi.org/10.3906/tar-1206-14>.
12. **Karpavičienė B.** 2012. Morphological, reproductive and karyological variability in *Allium oleraceum* in Lithuania. *Biologia*, 67 (2): 278–283. <https://doi.org/10.2478/s11756-012-0003-3>
13. **Karpavičienė B.**, 2007. Chromosome numbers of *Allium* from Lithuania. *Annales Botanici Fennici*, 44(5): 345–352.

Scientific articles published in journals (books), indexed in “Clarivate Analytics Web of Science” database (without citation index):

1. **Karpavičienė B.**, Mlečkaitė G.E. 2019. Response of *Polygonatum multiflorum* and *P. odoratum* morphological characteristics and population structure to variation in environmental factors. – *Botanica*, 25: 111–120. <https://doi.org/10.2478/botlit-2019-0013>.
2. **Karpavičienė B.**, Danilovienė J., Vykertaitė R. 2019. Congeneric comparison of allelopathic and autotoxic effects of four *Solidago* species. *Botanica Serbica*, 43: 175–186. <https://doi.org/10.2298/BOTSERB1902175K>.
3. Labokas J., **Karpavičienė B.** 2018. Creation of a network of seed sites for in-situ conservation of medicinal and aromatic plant genetic resources in Lithuania. *Botanica*, 24: 87–97. <https://doi.org/10.2478/botlit-2018-0008>.
4. **Karpavičienė B.**, Radušienė J., Viltrakytė J., 2015. Distribution of two invasive goldenrod species *Solidago canadensis* and *S. gigantea* in Lithuania. *Botanica Lithuanica*, 21(2): 125–132. <https://doi.org/10.1515/botlit-2015-0015>.

5. Marcinkonis S., Fullen M. A., **Karpavičienė B.** 2015. Linking floral biodiversity with nitrogen and carbon translocations in semi-natural grasslands in Lithuania. *Ekologia*, 34(2): 137–146. <https://doi.org/10.1515/eko-2015-0014>.
6. Radušienė J., **Karpavičienė B.**, Stanius Ž., 2012. Effect of external and internal factors on secondary metabolites accumulation in St. John's wort. *Botanica Lithuanica*, 18(2): 101–108. <https://doi.org/10.2478/v10279-012-0012-8>.
7. **Karpavičienė B.**, Karanauskaitė D., 2010. Variation in reproductive modes of *Allium oleraceum*, *A. scorodoprasum* and *A. vineale* in field collection. *Acta Biologica Universitatis Daugavpiliensis*, 10(1): 1–9.
8. **Karpavičienė B.**, Marcinkonis S. 2009. Pievų floros sudėtis tręšiant kiaušintinkystės komplekso nuotekomis. – *Žemdirbystė-Agriculture*, **96(2)**: 165–175.
9. Maršalkienė N., Sliesaravičius A., **Karpavičienė B.**, Dastikaitė A. 2009. Oil content and fatty acid composition of seeds of some Lithuanian wild crucifer species. *Agronomy Research*, 7(Special issue II): 654–661.
10. **Karpavičienė B.**, 2008: The distribution pattern of *Allium oleraceum* in Lithuania. *Botanica Lithuanica*, **14(3)**: 105–111.
11. **Karpavičienė B.**, 2006: Distribution of *Allium ursinum* L. in Lithuania. *Acta Biologica Universitatis Daugavpiliensis*, **6(1–2)**: 117–121.
12. **Karpavičienė B.**, 2004: *Allium* genties rūšių paplitimas Lietuvoje. *Botanica Lithuanica*, Suppl. 6: 19–30.
13. **Karpavičienė B.**, 2003: Intensity of generative and vegetative reproduction of *Allium ursinum* *Botanica Lithuanica*, 9(1): 3–12.
14. **Karpavičienė B.**, 2002: *Allium oleraceum* populations: ecological attachment and reproduction. *Botanica Lithuanica*, 8(2): 103–110.

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

1. Labokas J., **Karpavičienė B.**, Rašomavičius V., Gelvonauskis B. 2016. Developing a national crop wild relative in situ conservation strategy for Lithuania: creation of a national CWR inventory and its prioritization. In: *Enhancing crop genepool use: capturing wild relative and landrace diversity for crop improvement*, pp. 217–230. CABI International.
2. Labokas J., **Karpavičienė B.**, Šveistytė L., Radušienė J., Ložienė K. 2012. Towards in situ Conservation of Crop Wild Relatives in Lithuania. In: *Agrobiodiversity Conservation: Securing the Diversity of Crop Wild Relatives and Landraces*, pp. 91–95. CABI International.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

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| 2012–2022 | Researcher MERL “Identification of potential genetic plots of medicinal and aromatic plants and assessment of suitability for long-term storage in southwest Lithuania” (leader J. Labokas). |
| 2013–2015 | Participant COST FP1203 “European Non-Wood Forest Products (NWFPs)”. https://www.nwfps.eu/ |
| 2015 | Researcher MERL “Processing of research and dispersed information on protected species and input into a unified Protected Species Information System (PSIS/SRIS)” (leader V. Rašomavičius). |
| 2013–2015 | Researcher LCR project “Diversity of <i>Solidago</i> species and biotypes, control of abundance and use” (leader J. Radušienė). |
| 2014 | Projects leader LCR student research traineeships “Studies on the distribution and possibilities of generative reproduction of <i>Solidago ×niederederi</i> ” |

2011–2012	Projects leader LCR project “Ecological pattern of distribution of <i>Allium scorodoprasum</i> L. cytotypes in Lithuania”
2012–2014	Researcher MERL project “Inventory of EU natural habitats in Lithuania” (leader V. Rašomavičius)
2011–2013	Member of the working group GRUNDTVIG project “Forest plants wild harvesting learning in Europe”. https://plantwild.wordpress.com/
2010–2011	Researcher LCR project “Modelling the quality of St. John's Wort medicinal raw material under the influence of abiotic and biotic factors” (leader J. Radušienė).
2006–2011	Researcher PGB “Selection of medicinal plant seed (genetic) plots in the field, preparation of mapping material and passports” (leader J. Labokas).
2009	Researcher LSSF “Expression of interactions between abiotic and biotic factors on changes and trends in carbon-nitrogen cycling processes” (leader S. Marcinkonis).
2008	Researcher LSSF “Abiotic and biotic factors on the landscape components (small basin modeling)” (leader S. Marcinkonis).

INTERNSHIP AND TRAINING

2008	GIS training UAB “HNIT-BALTIC“, Vilnius
2007	Training “Introduction to SPSS for Windows“ and „Advanced Statistical Analysis with SPSS“, Vilnius

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences:

1. Stara K, Bonet JA, Wong J, Avdibegović M, Barstad J, Bouriaud L, Chira D, Dickinson B, Egli S, Ehrlich P, **Karpavičienė B**, Grebenc T, Hale M, Kadlec J, Karadžić D, Kasparavičius J, Keča L, Keča N, Korjus H, Kovalcik M, Krisai-Greilhuber I, Kušan I, Lucian D, Magnúsdóttir L, Martín-Pinto P, de Aragón JM, Molinier V, Kängsepp V, Korjus H, Küçüker DM, Nahm M, Nedanovska V, Nedelin T, Oria-de-Rueda JA, Rasztoivits E, Riedl M, Salo K, Santos e Silva C, Sheppard J, Sitta N, Staniszewski P, Stoyanova MT, Suriano E, Tomao A, Toscani P, Zalitis T, Zgrablić Ž. 2016 Non timber forest products linguistic diversity: the case of mushrooms. – International conference on Wild Forest Products in Europe (StarTree), 13–14 October, Barcelona, Spain.
2. **Karpavičienė, B.** 2014. Environmental effects on *Allium ursinum* morphology and reproduction – 8th CMAPSEEC Conference on medicinal and aromatic plants of Southeast European countries, 19–22 May, Durres, Albania.
3. Radušienė, R., Marksa, M., Ivanauskas L., Jakštas V., **Karpavičienė, B.** 2014. Sources of phenolic compounds in two widespread species of goldenrods. – 8th CMAPSEEC Conference on medicinal and aromatic plants of Southeast European countries, 19–22 May, Durres, Albania.
4. Labokas J., Gelvonauskis B., **Karpavičienė B.**, Kemešytė V. 2014. Development of the national crop wild relative in situ conservation strategy for Lithuania. – International conference – Enhanced genepool utilization – Capturing wild relative and landrace diversity for crop improvement, 16–20 June, Cambridge, United Kingdom.

National scientific conferences:

1. **Karpavičienė B.**, Danilovienė J., Vykertaitė R. 2019. Comparison of autotoxic effects of *Solidago* species. – 62nd International conference for students of physics and natural sciences “Open Readings 2019”, 19–22 Mart, Vilnius: 447. <http://www.openreadings.eu/wp-content/uploads/2019/03/abstractbook19.pdf>

2. Vykertaitė R., **Karpavičienė B.** 2018. Rykštenių lapų ekstraktų alelopatinis poveikis eraičinų sėklų daigumui – Dvidešimt ketvirtoji tarptautinė mokslinė konferencija „Žmogaus ir gamtos sauga 2018“, 9–11 May, Kaunas.
3. **Karpavičienė B.** 2016. Vaistinių augalų naudojimas Kidulių valsčiuje. – Profesorius Norberto Vėliaus skaitymai (IX): Augalai baltų religijoje ir mitologijoje“, 7–8 April, Vilnius. [http://www.llti.lt/failai/VS_tezes_20160401\(1\).pdf](http://www.llti.lt/failai/VS_tezes_20160401(1).pdf)
4. Maršalkienė N., **Karpavičienė B.** 2016. Influence of genotype and meteorological conditions on seed productivity of flat pea (*Lathyrus sylvestris*). – Long-term agroecosystem sustainability: links between carbon sequestration in soils, food security and climate change, 4–6 October, Kaunas .
5. Viltrakytė J., **Karpavičienė B.** 2014. *Solidago* × *niederederi* paplitimo ir generatyvinio dauginimosi galimybių tyrimai – Studentų mokslinė praktika, Vilnius.

PARTICIPATION IN THE STUDY PROCESS

Supervision of PhD students:

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

Julija Danilovienė	Topic of the research “Impact of alien goldenrods on native species and plant communities“	2017-10-02 – 2023-09-30
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Supervision of bachelor and master students:

Laura Karvelytė	Topic of the Bachelor's Theses „Study of the essential oil content and allelopathic properties of the fruits of plants of the celery family (Apiaceae) (VMU EA, Biology study programme)	2019–2020
Julija Viltrakytė	Topic of the Bachelor's Theses “Studies of floral morphology and generative reproduction of goldenrods (<i>Solidago</i> L.) in Lithuania (VU FNS, Biology study programme).	2014–2015
Giedrė Mlečkaitė	Topic of the Master's Theses “Factors influencing the sexual expression of <i>Polygonatum multiflorum</i> and <i>P. odoratum</i> (VU FNS, botany).	2014–2015
Giedrė Mlečkaitė	Topic of the Bachelor's Theses “Karyology, biology and distribution of <i>Polygonatum</i> Mill. species in Lithuania (VU FNS, botany).	2012–2014
Agnė Raginytė	Topic of the Master's Theses “Intraspecific and interspecific variation in <i>Solidago</i> ploidy as well as leaf morphology and anatomy (VU FNS, botany).	2013–2014
Raimonda Jankauskaitė	Topic of the Bachelor's Theses “The interspecific and infraspecific variation in quantitative characteristics of the stomata of <i>Allium oleraceum</i> and <i>A. scorodoprasum</i> .	2011
Dovilė Karanauskaitė	Topic of the Bachelor's Theses “The interspecific and infraspecific morphological variation in <i>Allium oleraceum</i> , <i>A. scorodoprasum</i> and <i>A. vineale</i> in field collection“ (VU FNS, botany).	2008–2009

OTHERS

1. Karpavičienė B., 2021: Puošnieji moliūgai. *Rasos*, 24(584): 10–11.
2. Karpavičienė B., 2021: Kelios moliūgų veislių subtilybės. *Rasos*, 14(574): 10–11.
3. Karpavičienė B., Kampuotasis česnakas *Allium angulosum* L. Kn.: Rašomavičius, V. (ed.), 2021, Lietuvos raudonoji knyga. Gyvūnai, augalai, grybai. – Vilnius, p. 420.

4. Karpavičienė B., Porinis česnakas *Allium scorodoprasum* L. Kn.: Rašomavičius, V. (ed.), 2021, Lietuvos raudonoji knyga. Gyvūnai, augalai, grybai. – Vilnius, p. 421.
5. Karpavičienė B., Dirvinis česnakas *Allium vineale* L. Kn.: Rašomavičius, V. (ed.), 2021, Lietuvos raudonoji knyga. Gyvūnai, augalai, grybai. – Vilnius, p. 422
6. Karpavičienė B., 2018: Kaip nepaklysti tarp moliūgų? *Rasos*, 21(509): 10–13.
7. Karpavičienė B., 2013: Gėlių darželis. – In. Girininkienė V., Mačiekus V., Girdauskas V., Krikščiūnas P. (eds.) *Sintautų valsčius I d.* 179–181. Versmės, Vilnius.
8. Karpavičienė B., 2013: Vaistiniai augalai greta mūsų. – In. Girininkienė V., Mačiekus V., Girdauskas V., Krikščiūnas P. (eds.) *Sintautų valsčius I d.* 174–178. Versmės, Vilnius.
9. Karpavičienė B., 2013: Paslėptų turtų paieškos. – *Sodo spalvos*, 5:84–85.
10. Karpavičienė B., 2012: Sveikatą teikiantys medžiai. – *Darni aplinka*, 5: 34–35.
11. Karpavičienė B., 2007: Kalninė arnika. – In.: Rašomavičius V. (ed.), *Lietuvos Raudonoji knyga*: 529. – Vilnius.
12. Karpavičienė B., 2007: Dirvinis česnakas. – In.: Rašomavičius V. (ed.), *Lietuvos Raudonoji knyga*: 544. – Vilnius.
13. Karpavičienė B., 2007: Kampuotasis česnakas. – In.: Rašomavičius V. (ed.), *Lietuvos Raudonoji knyga*: 546. – Vilnius.
14. Karpavičienė B., 2007: Meškinis česnakas. – In.: Rašomavičius V. (ed.), *Lietuvos Raudonoji knyga*: 548. – Vilnius.
15. Karpavičienė B., 2007: Porinis česnakas. – In.: Rašomavičius V. (ed.), *Lietuvos Raudonoji knyga*: 547. – Vilnius.