

Vaidotas Lygis

CONTACT INFORMATION

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EDUCATION AND ACADEMIC DEGREE

- 2000 – 2005 Doctoral studies at the Swedish University of Agricultural Sciences (SLU; Department of Forest Mycology and Pathology). Title of the dissertation: „Root Rot in North-Temperate Forest Stands: Biology, Management and Communities of Associated Fungi“. Scientific supervisors: prof. Jan Stenlid, dr. Rimvydas Vasiliauskas (SLU, Uppsala, Sweden). The thesis was defended on the 3rd of February, 2005, at the Swedish University of Agricultural Sciences (SLU; Uppsala, Sweden). Doctor's degree in *Forestry* (PhD). A name of *Doctor of Biomedical Sciences* has been granted following diploma nostrification at the Research Council of Lithuania (2005 06 16).
- 1997 – 1999 Master's studies at the Lithuanian Agricultural University (currently – Vytautas Magnus University Agriculture Academy (VDU ŽŪA), Kaunas (Lithuania). Master's degree in *Forestry*. Master's thesis title: “Adaptability of Scots pine geographical ecotypes in Paneriai Forest District”. Subject - forest tree breeding and adaptability. The study was carried out at the Lithuanian Institute of Forestry. Scientific supervisor: dr. Julius Danusevičius.
- 1993 – 1997 Bachelor's studies at the Lithuanian Agricultural University (currently – Vytautas Magnus University Agriculture Academy (VDU ŽŪA), Kaunas (Lithuania). Bachelor degree in *Forestry*.

PROFESSIONAL EXPERIENCE

- 2010 01 – to present **Chief researcher** (until 2016 - **senior researcher**) at the Laboratory of Plant Pathology (until 2019 - Laboratory of Phytopathogenic Microorganisms) of Nature Research Centre.
- 2016 09 – to present **Director** of Kaunas Forestry and Environmental Engineering University of Applied Sciences (KMAIK)
- 2005 11 – 2009 12 **Researcher** (2005-2007), **senior researcher** (2007-2009) at the Laboratory of Phytopathogenic Microorganisms of Institute of Botany.
- 2007 04 – 2009 03 **Senior researcher** at the Department of Forest Mycology and Pathology, Swedish University of Agricultural Sciences (SLU), Uppsala, Sweden. Work on EU project LITCOAST (see below).
- 2004 02 – 2004 12 **Deputy director**. Lithuanian Forest Seed Farming and Tree Breeding Service (currently - Department of Forest Genetic Resources at the State Forest Service)
- 2000 – 2004 **Research assistant** at the Department of Forest Protection and Game Management, Lithuanian Forest Research Institute, Kaunas (Lithuania).

1997 – 2001

Deputy head of Dūkštos Forest District, Vilnius State Forest Enterprise,
Vilnius distr., Lithuania.

RESEARCH INTERESTS

- Diagnosis of forest tree disorders (damages by fungal and abiotic diseases, insect pests) and their control;
- Isolation, culturing and identification of wood-inhabiting (and other) fungi, inoculation techniques, pathogenicity and virulence tests, population studies, genotyping;
- Molecular techniques (DNA extraction, amplification by PCR, sequencing and sequence analysis; microsatellite analysis (SSR, RAMS), RAPD, RFLP profiling and other techniques);
- Evaluation of quantitative and qualitative stand characteristics (forest mensuration), good understanding in forest management (practical silviculture) and forest protection;
- Vegetation management by application of biological control agents (mycoherbicide testing);
- Establishment of forest plantations, experience in short rotation forestry;
- Knowledge of management of forest nurseries, seed orchards, clonal archives, knowledge in tree breeding and propagation (acquired while working at the Lithuanian Forest Seed Farming and Tree Breeding Service);
- Evaluation of early stage regeneration of forest communities following natural (climate change-related) and human-caused disturbances;
- Evaluation of response of juvenile progeny of forest tree species and their populations to climate change-related stressors;
- Ecological restoration of degraded peatlands.

PUBLICATIONS

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

1. **Lygis, V.**, Vasiliauskas, R., Stenlid, J. 2004. Planting *Betula pendula* on pine sites infested by *Heterobasidion annosum*: disease transfer, silvicultural evaluation, and community of wood-inhabiting fungi. *Canadian Journal of Forest Research*. 34: 120–130.
2. **Lygis, V.**, Vasiliauskas, R., Stenlid, J., Vasiliauskas, A. 2004. Silvicultural and pathological evaluation of Scots pine afforestations mixed with deciduous trees to reduce the infections by *Heterobasidion annosum* s.s. *Forest Ecology and Management*. 201: 275–285.
3. Menkis, A., Allmer, J., Vasiliauskas, R., **Lygis, V.**, Stenlid, J., Finlay, R. 2004. Ecology and molecular characterization of dark septate fungi from roots, living stems, coarse and fine woody debris. *Mycological Research*. 108: 965–973.
4. Vasiliauskas, R., **Lygis, V.**, Thor, M., Stenlid, J. 2004. Impact of biological (Rotstop) and chemical (urea) treatments on fungal community structure in freshly cut *Picea abies* stumps. *Biological Control*. 31: 405–413.
5. **Lygis, V.**, Vasiliauskas, R., Larsson, K.-H., Stenlid, J. 2005. Wood-inhabiting fungi in stems of *Fraxinus excelsior* in declining ash stands of northern Lithuania, with particular reference to *Armillaria cepistipes*. *Scandinavian Journal of Forest Research*. 20: 337–346.
6. **Lygis, V.**, Vasiliauskas, R., Stenlid, J. 2005. Clonality in the postfire root rot ascomycete *Rhizina undulata*. *Mycologia*. 97(4): 788–792.
7. Vasiliauskas, R., **Lygis, V.**, Larsson, K.-H., Stenlid, J. 2005. Airborne fungal colonization of coarse woody debris in North Temperate *Picea abies* forest: impact of season and local spatial scale. *Mycological Research*. 109: 487–496.

8. Vasaitis, R., Menkis, A., Woon Lim, Y., Seok, S., Tomsovsky, M., Jankovsky, L., **Lygis, V.**, Slippers, B., Stenlid, J. 2009. Genetic variation and relationships in *Laetiporus sulphureus* s. lat., as determined by ITS rDNA sequences and in vitro growth rate. *Mycological Research*. 113: 326–336.
9. **Lygis, V.**, Vasiliauskaite, I., Stenlid, J., Vasaitis, R. 2010. Impact of forest fire on occurrence of *Heterobasidion annosum* s.s. root rot and other wood-inhabiting fungi in roots of *Pinus mugo*. *Forestry* (Oxford). 1: 83–92.
10. Pliūra, A., **Lygis, V.**, Suchockas, V., Bartkevičius, E. 2011. Performance of twenty four European *Fraxinus excelsior* populations in three Lithuanian progeny trials with a special emphasis on resistance to *Chalara fraxinea*. *Baltic Forestry*. 17(1): 17–34.
11. Menkis, A., Bakys, R., **Lygis, V.**, Vasaitis, R. 2011. Mycorrhization, establishment and growth of outplanted *Picea abies* seedlings produced under different cultivation systems. *Silva Fennica*. 45(2): 283–289.
12. Vasaitis, R., **Lygis, V.**, Vasiliauskaite, I., Vasiliauskas, A. 2012. Wound occlusion and decay in *Picea abies* stems. *European Journal of Forest Research*. 131(4): 1211–1216.
13. Menkis, A., **Lygis, V.**, Burokienė, D., Vasaitis, R. 2012. Establishment of ectomycorrhiza-inoculated *Pinus sylvestris* seedlings on coastal dunes following a forest fire. *Baltic Forestry*. 18(1): 33–40.
14. **Lygis, V.**, Bakys, R., Burokienė, D., Vasiliauskaite, I. 2012. *Chondrostereum purpureum*-based control of stump sprouting of seven hardwood species in Lithuania. *Baltic Forestry*. 18(1): 41–55.
15. Santini, A., Ghelardini, L., De Pace, C., Desprez-Loustau, M.L., Capretti, P., Chandelier, A., Cech, T., Chira, D., Diamandis, S., Gaitnieks, T., Hantula, J., Holdenrieder, O., Jankovsky, L., Jung, T., Jurc, D., Kirisits, T., Kunca, A., **Lygis, V.**, Malecka, M., Marçais, B., Schmitz, S., Schumacher, J., Solheim, H., Solla, A., Szabò, I., Tsopelas, P., Vannini, A., Vettraino, A.M., Webber, J., Woodward, S., Stenlid, J. 2013. Biogeographical patterns and determinants of invasion by forest pathogens in Europe. *New Phytologist*. 197(1): 238–250.
16. **Lygis, V.**, Bakys, R., Gustiene, A., Burokiene, D., Matelis, A., Vasaitis, R. 2014. Forest self-regeneration following clear-felling of dieback-affected *Fraxinus excelsior*: focus on ash. *European Journal of Forest Research*. 133: 501–510.
17. **Lygis, V.**, Vasiliauskaite, I., Matelis, A., Pliūra, A., Vasaitis, R. 2014. Fungi in living and dead stems, and stumps of *Pinus mugo* on coastal dunes of Baltic Sea. *Plant Protection Science*. 50(4): 221–226.
18. Burokiene, D., Prospero, S., Jung, E., Marciulyniene, D., Moosbrugger, K., Norkute, G., Rigling, D., **Lygis, V.**, Schoebel, C.N. 2015. Genetic population structure of the invasive ash dieback pathogen *Hymenoscyphus fraxineus* in its expanding range. *Biological Invasions*. 17(9): 2743–2756. Q1
19. Pliura, A., **Lygis, V.**, Marciulyniene, D., Suchockas, V., Bakys, R. 2015. Genetic variation in susceptibility of *Fraxinus excelsior* half-sib families to *Hymenoscyphus fraxineus* following simulated spring frost and summer drought treatments. *iForest - Biogeosciences and Forestry*. 9: 12–22. Q2
20. Jarašius, L., **Lygis, V.**, Sendžikaitė, J., Pakalnis, R. 2015. Effect of different hydrological restoration measures in Aukštumala raised bog damaged by peat harvesting activities. *Baltic Forestry*. 21(2): 192–203. Q3
21. Motiejūnaitė, J., Kutorga, E., Kasparavičius, J., **Lygis, V.**, Norkutė, G. 2016. New records from Lithuania of fungi alien to Europe. *Mycotaxon*. 131: 49–60. Q2

22. Tollefsrud, M.M., Myking, T., Sønstebø, J.H., **Lygis, V.**, Hietala, A.M., Heuertz, M. 2016. Genetic structure in the northern range margins of common ash, *Fraxinus excelsior* L. *PLoS One*. 11(12): e0167104. Q1
23. **Lygis, V.**, Prospero, S., Burokiene, D., Schoebel, C. N., Marciulyniene, D., Norkute, G., Rigling, D. 2017. Virulence of the invasive ash pathogen *Hymenoscyphus fraxineus* in old and recently established populations. *Plant Pathology*. 66(5): 783–791. Q1
24. Schoebel, C., Botella, L., **Lygis, V.**, Rigling, D. 2017. Population genetic analysis of a parasitic mycovirus to infer the invasion history of its fungal host. *Molecular Ecology*. 26(9): 2482–2497. Q1
25. Verbylaitė, R., Pliūra, A., **Lygis, V.**, Suchockas, V., Jankauskienė, J., Labokas, J. 2017. Genetic diversity and its spatial distribution in self-regenerating Norway spruce and Scots pine stands. *Forests*. 8(12): art. no. 470. Q1
26. Pliūra, A., Jankauskienė, J., **Lygis, V.**, Suchockas, V., Bajerkevičienė, G., Verbylaitė, R. 2018. Response of juvenile progeny of seven forest tree species and their populations to simulated climate change-related stressors, heat, elevated humidity and drought. *iForest-Biogeosciences and Forestry*. 11: 374–388. Q2
27. Suchockas, V., Pliūra, A., Labokas, J., **Lygis, V.**, Dobrowolska, D., Jankauskienė, J., Verbylaitė, R. 2018. Evaluation of early stage regeneration of forest communities following natural and human-caused disturbances in the transitional zone between temperate and hemiboreal forests. *Baltic Forestry*. 24(1): 131–147. Q3
28. Pliūra, A., Jankauskienė, J., Bajerkevičienė, G., **Lygis, V.**, Suchockas, V., Labokas, J., Verbylaitė, R. 2019. Response of juveniles of seven forest tree species and their populations to different combinations of simulated climate change-related stressors: spring-frost, heat, drought, increased UV radiation and ozone concentration under elevated CO₂ level. *Journal of Plant Research*. 132(6): 789–811. Q1
29. Pliūra, A., Bajerkevičienė, G., Labokas, J., **Lygis, V.**, Jankauskienė, J., Suchockas, V., Verbylaitė, R. 2020. The effects of different combinations of simulated climate change-related stressors on juveniles of seven forest tree species grown as mono-species and mixed cultures. *Baltic Forestry*. 26(1): 326. Q3

Scientific articles published in conference proceedings, indexed in „Clarivate Analytics Web of Science“ database: -

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

1. Jarašius, L., Matulevičiūtė, D., Pakalnis, R., Sendžikaitė, J., **Lygis, V.** 2014. Drainage impact on plant cover and hydrology of Aukštumala Raised bog (Western Lithuania). *Botanica Lithuanica*. 20(2): 109–120.
2. Motiejūnaitė, J., Markovskaja, S., Kutorga, E., Iršėnaitė, R., Kasparavičius, J., Kačergius, A., **Lygis, V.** 2017. Alien fungi in Lithuania: list of species, current status and trophic structure. *Botanica Lithuanica*. 23(2): 139–152.

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

1. Vasiliauskas, R., Bakys, R., **Lygis, V.**, Ihrmark, K., Barklund, P., Stenlid, J. 2006. Fungi associated with the decline of *Fraxinus excelsior* in the Baltic States and Sweden. In:

- Oszako, T., Woodward, S. (eds.), *Possible Limitation of Decline Phenomena in Broadleaved Stands*. Warsaw: Forest Research Institute, pp. 45–53.
2. **Lygis, V.**, Grigaliūnaitė, B., Pribušauskaitė, V., Matelis, A. 2010. *Exobasidium japonicum* – rododendrų pūslialigės sukėlėjas. *Vytauto Didžiojo universiteto Botanikos sodo raštai* (= *Scripta Horti Botanici Universitatis Vytauti Magni*). XIV: 105–112.
 3. Pliūra, A., Marčiulygienė, D., Suchockas, V., **Lygis, V.** 2012. Paprastojo uosio klonų atsparumo *Chalara fraxinea* genetinė variacija jauname amžiuje. *Miškininkystė*. 2(72): 55–68.
 4. Marčiulygienė, D., **Lygis, V.**, Pliūra, A., Krivickaitė, R., Dabkevičius, Z. 2015. Paprastojo uosio šeimų jautrumas džiūvimui panaudojant dirbtinį apkrėtimą *Hymenoscyphus fraxineus*. *Miškininkystė*. 1(77): 7–19.
 5. Pliūra, A., Bakys, R., Suchockas, V., Marčiulygienė, D., Gustienė, A., Verbyla, V., **Lygis, V.** 2017. Ash dieback in Lithuania: disease history, research on impact and genetic variation in disease resistance, tree breeding and options for forest management. In: Vasaitis, R., Enderle, R. (eds.), *Dieback of European Ash (Fraxinus spp.): Consequences and Guidelines for Sustainable Management*, Swedish University of Agricultural Sciences, Service/Repro, Uppsala, Sweden, pp.150–165. ISBN (print version) 978-91-576-8696-1; ISBN (electronic version) 978-91-576-8697-8.

PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

INTERNATIONAL RESEARCH PROGRAMS AND PROJECTS:

- 2014-2018 **Substitute Management Committee (MC) member.** COST Action title: „A global network of nurseries as early warning system against alien tree pests (Global Warning)“ (COST programme Action No. FP1401). Foundation: European Commission. Project (Memorandum of Understanding) no.: oc-2013-2-16671.
- 2012-2016 **Main applicant, leader of the Lithuanian partner’s team.** Project title: „Incidence of mycoviruses in epidemic and post-epidemic populations of the ash dieback pathogen *Chalara fraxinea* and evaluation of their potential for biological control of the disease (CONTROLDIEBACK)“. Project of the Lithuanian-Swiss cooperation programme. Foundation: Switzerland’s contribution to the enlarged EU and Lithuanian Government. Coordinator in Lithuania: Ministry of Finance of the Republic of Lithuania. Project no.: CH-3-ŠMM-01/12; Budget: 627,106 EUR.
- 2012-2016 **Management Committee (MC) member; deputy head of a work group „Silviculture“.** COST Action title: „*Fraxinus* dieback in Europe: elaborating guidelines and strategies for sustainable management (FRAXBACK)“ (COST programme Action No. FP1103). Foundation: European Commission. Project (Memorandum of Understanding) no.: oc-2011-1-9125. Budget: 480,000 EUR.
- 2014-2015 **Home mentor of Goda Norkutė.** Project title: „ALDERDECLINE - Occurrence and genetic diversity of the invasive alder pathogen *Phytophthora alni* s.l. in Switzerland and Lithuania“. Project of the SCIEX NMSch - Scientific Exchange Programme NMS.CH (part of the Swiss Contribution to the New Member States of the EU) – SCIEX Fellowship of a PhD student of V. Lygis, Goda Norkutė). Project no.: 14.035. Budget: 70,000 CHF.
- 2012-2012 **Member of the project team.** Project title: “Risk assessment and establishment of a system to address potential pathogens in Nordic forestry as a result of climate change“. Foundation: SNS – Nordic Forest Research Co-operation Committee (SamNordisk Skogforskning). Project no.: SNS-113: Selfoss-project. Budget:

20,000 EUR.

- 2008-2012 **Member of the project team.** COST Action title: „Post-Fire Forest Management in Southern Europe“ (COST Programme Action No. FP0701). Foundation: European Commission. Project (Memorandum of Understanding) no.: 253/07.
- 2010-2012 **Member of the project team.** Project title: ”Decline of *Fraxinus excelsior* in northern Europe”. Foundation: SNS – Nordic Forest Research Co-operation Committee. Project no.: SNS-109. Budget: 150,000 EUR.
- 2009-2011 **Member of the project team.** Project title: “Forest regeneration and sustainability at the Forest / Steppe border, aimed to control desertification in Ukraine”. Foundation: Svenska Institutet, Visby Program. Project no.: 00572/2009. Budget: 70,000 EUR.
- 2007-2011 **Member of the project team.** Project title: “Nordic co-operation in Forest Pathology organised as a virtual Centre of Advanced Research (PATHCAR)”. Foundation: SNS – Nordic Forest Research Co-operation Committee. Project no.: CAR 1-2006. Budget: 190,000 EUR.
- 2006–2010 **Member of the project team.** Project title: “Management of coastal forests of Lithuania: sustaining and enhancing forest health through silviculture (LITCOAST)”. Foundation: European Commission, European Community Marie Curie Actions. Contract no.: MTKI-CT-2006 – 042622. Budget: 377,235 EUR.
- 2007-2009 **Member of the project team.** Project title: “European Network on emerging diseases and threats through invasive alien species in forest ecosystems (FORTHREATS) – European Community Coordination Action”. Foundation: European Commission. Contract no.: 044436 (SSPE). Budget: 300,000 EUR.

NATIONAL RESEARCH PROGRAMS AND PROJECTS:

- 2019 07 01 – **Scientific supervisor.** Summer research practice „Invazinių *Phytophthora* genčiai priklausančių mikroorganizmų identifikavimas ir populiacijų molekulinis charakterizavimas“ [*Identification of microorganisms in Phytophthora genus and molecular characterization of their populations*] of a bachelor student Žygimantas Valiuška (Vilnius University) The research project was implemented under the project “Promotion of Students’ Capabilities to Implement R&D Activities”, funded by Research Council of Lithuania. Contract no.: 09.3.3.-LMT-K-712-15-0295. Budget 1,878 EUR.
- 2015 08 01– **Member of the project team.** A project of National Research Programme “Sustainability of agro-, forest and water ecosystems”. Project title: „Skirtingų medžių rūšių ir besiformuojančių miško bendrijų atsakas ir plastiškumas klimato kaitos ir kitų streso veiksnių poveikyje (akronimas: MIŠKOEKOKAITA). [*Response and plasticity of different tree species & juvenile-stage forest communities under impact of climate change and other environmental stressors. Acronym: MIŠKOEKOKAITA*]“. Funded by Research Council of Lithuania. Project no.: SIT 4/2015. Budget: 343,869 EUR.
- 2012 05 01 – **Member of the project team.** Project title: „Paprastjojo uosio atsparumo patogeni *Chalara fraxinea* eko-genetinis sąlygotumas (akronimas: UOSIS)“ [*Eco-genetic control of resistance to the pathogen Chalara fraxinea in common ash. Acronym: UOSIS*]. Funded by Research Council of Lithuania. Contract no: MIP-040/2012. Budget: 312,000 LTL.
- 2010 07 01– **Project leader.** Project title: „Parazitinio grybo *Chondrostereum purpureum* panaudojimas lapuočių medžių atžėlimo kontrolei (BIOCHON)“ [*Application of parasitic fungus Chondrostereum purpureum for stump sprouting control in hardwoods. Acronym: BIOCHON*]. Funded by Research Council of Lithuania.

Contract no.: MIP-133. Budget: 154,100 LTL.

- 2010 10 15 – **Scientific supervisor.** Research project of bachelor student Goda Norkutė (Vilnius University) „Guobų maro sukėlėjo *Ophiostoma ulmi sensu lato* (s.l.) populiacijų ir kitų ligos pažeistą medieną kolonizuojančių grybų įvairovės tyrimai“ [*Study of populations of Ophiostoma ulmi sensu lato (s.l.), the causal agent of Dutch Elm Disease, and communities of fungi colonizing elm wood affected by the disease*]. The research project was implemented under the project “Promotion of Students’ Scientific Activities”, funded by the European Union Structural Funds (funding and administration contract no.: Nr. VP1-3.1-ŠMM-01-V-01-002) through Research Council of Lithuania. Contract no.: GTC-10-10-15-1.
- 2010 06 02 – **Scientific supervisor.** A summer research practice „Paprastojo uosio (*Fraxinus excelsior* L.) džiūties tyrimai“ [*Investigations into dieback of Fraxinus excelsior L.*] of bachelor student Gabrielė Stakaitytė (St. Andrews University, Scotland). Students' practice was organised under the project “Promotion of Students’ Scientific Activities”, funded by European Union Structural Funds (funding and administration contract no.: Nr. VP1-3.1-ŠMM-01-V-01-002) through Research Council of Lithuania. Contract no.: GTC-10-06-02-2. Budget: 2,500 LTL.
- 2009 03 – **Project leader.** Project title: „Mechaniniai eglių kamienų pažeidimai: ekonominis bei fitosanitarinis žalos įvertinimas ir modeliavimas“ [*Mechanical damages on spruce stems: economical and phytosanitary evaluation and modelling of losses*]. Funded by Lithuanian State Science and Studies Foundation. Contract no.: T-54/09. Budget: 30,000 LTL.
- 2006 01 – **Member of the project team.** Research work under contract with the Energy and Economy Department of Vilnius City Municipality Administration. Project title: “Vilniaus miesto želdynų stebėseną ir atnaujinimas” [*Monitoring of condition and regeneration of tree plantings in Vilnius city*].
- 2006 01 – **Member of the project team.** Project title: „Plantacinių miškų veisimo, auginimo ir panaudojimo rekomendacijų parengimas“. [*Development of recommendations for establishment and handling of short rotation forest plantations*]. Funded by the Ministry of Environment of the Republic of Lithuania. Budget: 9,450 LTL.
- 2005 05 – **Member of the project team.** Project title: “Vietinės kilmės ir introdukuotų sumedėjusių augalų tinkamumo efektyviam biokuro žaliavos ruošimui palyginamieji tyrimai bei plantacijinio kultivavimo nenašioje žemėje technologijos parengimas” [*Comparative studies of indigenous and introduced woody plants’ suitability for effective production of raw material for biofuel, and development of technology for cultivation of short rotation coppice on unproductive land*]. Funded by JSC “Bionovus”. Project implemented under agreement signed on 2005-05-01.
- 2006 09 – **Member of the project team.** Project title: „Patogeninių grybų vaidmens ąžuolų džiūties procese nustatymas ir rekomendacijų ąžuolynų būklei gerinti parengimas“ [*Role of pathogenic fungi in the process of oak decline. Recommendations for maintenance of sanitary state of the oak stands*]. Funded by the Ministry of Environment of the Republic of Lithuania. Contract no.: SBMŪRP 6-33, 2006-09-06. Budget: 46,000 LTL.
- 2007 03 – **Project leader.** Project title: “Žalingiausių šaknų patogenų populiacijų dinamika ir kontrolė Kuršių nerijos pušynuose” [*Population dynamics and control of the most harmful root pathogens in pine stands of the Curonian Spit*]. Funded by Lithuanian State Science and Studies Foundation. Contract no.: T-72/07. Budget: 23,000 LTL.
- 2006 12 – **Member of the project team.** Project title: “Kuršių nerijos nacionalinio parko gaisravietės atkūrimo projektas” [*Project of restoration of the burned area in Kuršių Nerija National Park*]. Funded by the State Service for Protected Areas

under the Ministry of Environment.

2006 11 – **Member of the project team.** Project of Single Programming Document (SPD)
2008 04 measure No. 2.5; Title: „BIOTYRA - Biologinės įvairovės tyrėjų kompetencijos plėtra [*Improving competence of biodiversity researchers (acronym: BIOTYRA)*]“. Funded by European structural funds. Contract no.: ESF/2004/2.5.0-03-435/BPD-306/BPD-06-01. Budget: 902,902 LTL

INTERNSHIPS AND TRAINING

2000 10 30 – International courses *Forest microbiology* (SLU, Uppsala, Sweden).
2001 01 18

2001 02 12 – International courses *Effects of Environmental Factors on Nutrient Cycles, Below
2001 03 21 and Aboveground Production in Forest Soils* (SLU, Uppsala, Sweden).

2002 03 18 – International courses *Wood Biology - Structure, Function and Formation*. (SLU,
2002 03 22 Umea, Sweden).

2002 10 15 - International courses *Application Oriented Image Analysis*. (Uppsala University,
2002 12 17 Uppsala, Sweden).

2003 03 24 - International courses *Multivariate Methods for Ecologists*. (SLU, Uppsala,
2003 03 28 Sweden).

2003 05 22- International courses *Microbial Communities and Population; Genetics,
2003 05 28 Structure and Function* (series of NOVA courses, SLU, Uppsala, Sweden).

2003 09 29 – International courses *Fungal Genomics* (SLU, Uppsala, Sweden).
2003 10 03

2014 01 13 – International courses *Genetic Diversity – Analysis (Bioinformatics)*. (Genetic
2014 01 17 Diversity Centre (GDC), Zurich, Switzerland).

2007 – to A total of 12 short-term scientific missions (training visits, internships; duration
present from 3 days to 4 months) in Sweden (Department of Forest Mycology and Plant Pathology at the Swedish University of Agricultural Sciences (SLU)), Switzerland (Swiss Federal Institute for Forest, Snow and Landscape Research (WSL), ETH Zurich) and Latvia (Latvian State Forest Research Institute “Silava”).

PARTICIPATION IN SCIENTIFIC CONFERENCES

International scientific conferences (information provided for events that took place in 2015 and later):

1. Bajerkevičienė, G., Pliūra, A., Jankauskienė, J., **Lygis, V.**, Suchockas, V., Labokas, J., Verbylaitė, R. 2018. Response of juveniles of different forest tree species and populations to the complex of simulated climate change-related stressors-spring-frost, heat, drought, increased UV radiation and ozone concentrations under elevated CO₂ level. In Proceedings of the VII Baltic Genetics Congress, October 24-27, 2018, Riga, Latvia, Environmental and Experimental Biology 16 (13): 194. http://viibgc2018.lu.lv/abstracts/BGC_VII_abstracts.pdf
2. Pliūra, A., Suchockas, V., Jankauskienė, J., **Lygis, V.**, Verbylaitė, R., Labokas, J. 2017. Response of seven forest tree species to simulated climate change stressors, heat and drought. In: Proceedings of IUFRO conference 'Actions for sustainable forest ecosystems under air pollution and climate change', October 22-26, 2017, Tokyo University of Agriculture and Technology, Tokyo, Japan, p.40.

3. Norkutė, G., Čepukoit, D., **Lygis, V.**, Prospero, S. 2016. *Phytophthora alni* s.l. and *P. plurivora* species complex virulence test on *Alnus glutinosa* seedlings. The 5th International Conference of Young Scientists „Young Scientists for Advance of Agriculture“. Lithuanian Academy of Sciences, Vilnius, Lithuania, November 10-11, 2016: abstracts.
4. **Lygis, V.**, Rigling, D., Burokienė, D., Marčiulygienė, D., Schoebel, C.N., Norkutė, G. 2015. Virulence of *Hymenoscyphus fraxineus* isolates from Lithuanian (post-epidemic) and Swiss (epidemic) populations. Joint IUFRO Working Party Meetings: 7.02.02 "Foliage, shoot and stem diseases of forest trees" and 7.03.04 "Diseases and insects in forest nurseries". Swedish University of Agricultural Sciences SLU, Uppsala, Sweden, June 7-12, 2015: abstracts: 88. https://www.iufro.org/download/file/28319/75/70202-70304-uppsala15-abstracts_pdf/
5. Norkutė, G., **Lygis, V.**, Prospero, S. 2015. Occurrence and genetic diversity of *Phytophthora alni* s.l. in Lithuania and Switzerland. Joint IUFRO Working Party Meetings: 7.02.02 "Foliage, shoot and stem diseases of forest trees" and 7.03.04 "Diseases and insects in forest nurseries". Swedish University of Agricultural Sciences SLU, Uppsala, Sweden, June 7-12, 2015: abstracts: 89. https://www.iufro.org/download/file/28319/75/70202-70304-uppsala15-abstracts_pdf/

Over scientific career V. Lygis took part (and gave presentations) in more than 30 international scientific conferences, symposia and project/network meetings (contributed to organization of at least six of these).

PARTICIPATION IN THE STUDY PROCESS

Supervision of PhD students:

Research area: *Natural Sciences* (N 000). Research field: *Botany* (N013)

[Leonas Jarašius](#) Title of dissertation: „Aukštapelkių augalų bendrijų ekologinio atkūrimo galimybės degradavusioje Aukštumalos pelkės dalyje ir išeksploatuotame durpyne“ [*Possibilities of ecological restoration of raised-bog plant communities in degraded parts and in a cutover peatland of Aukštumala raised bog*]. The thesis was successfully defended on the 4th of December, 2015. Scientific supervisors: dr. Romas Pakalnis - from 2010 10 01 to 2010 12 01; dr. Vaidotas Lygis - from 2010 12 01 to 2014 09 30. 2010-2014

Research area: *Agricultural Sciences* (A 000). Research field: *Forestry* (A004)

[Diana Marčiulygienė](#) Title of dissertation: „Grybo *Hymenoscyphus fraxineus* skirtingos kilmės populiacijų savybės ir paprastojo uosio jautrumas ligos sukėlėjui“ [*Characterization of *Hymenoscyphus fraxineus* populations of different origin and susceptibility of common ash to the dieback pathogen*]. The thesis was successfully defended on the 17th of December, 2015. Scientific supervisors: prof. (HP) dr. Zenonas Dabkevičius - from September 2011 to November 2012; dr. Vaidotas Lygis – from 2012 11 12. 2011-2015

Research area: *Natural Sciences* (N 000). Research field: *Ecology and Environmental Science* (N012)

[Goda Norkutė](#) Title of dissertation: „Characterization of populations of invasive pathogens – causal agents of three major forest tree diseases: alder decline, Dutch elm disease and ash dieback“. The thesis was successfully defended on the 4th of October, 2018. Dr. Vaidotas Lygis has supervised the PhD studies since 2013 10 01. 2013-2017

Supervision of bachelor and master students:

Goda Norkutė	Supervisor of a MsC student Goda Norkutė (Vilnius University). Research fields – microbiology, forest pathology. Title of the thesis: “Guobų maro sukėlėjo <i>Ophiostoma ulmi</i> s.l. populiacijų bei koegzistuojančių medienos mikromicetų įvairovės tyrimai” [Genetic variation in populations of <i>Ophiostoma ulmi</i> s.l., the causal agent of Dutch Elm Disease and co-existing wood-inhabiting fungi]. Thesis defended successfully.	2011-2012
Akvilė Urnėžiūtė	Supervisor of a MsC student Akvilė Urnėžiūtė (Vilnius University), research field – microbiology. Title of the thesis: „Patogeninio grybo <i>Ophiostoma novo-ulmi</i> biokontrolės tyrimai laboratorinėmis sąlygomis“ [Biocontrol tests against a pathogenic fungus <i>Ophiostoma novo-ulmi</i> in laboratory conditions]. Thesis defended successfully.	2016-2017
Goda Norkutė	Supervisor of a bachelor student Goda Norkutė (Vilnius University). Research field – microbiology. Title of the thesis: „Maro pažeistų guobų medieną kolonizuojančių grybų įvairovės tyrimai“ [Diversity of wood-inhabiting fungi in elms affected by Dutch Elm Disease]. Thesis defended successfully.	2010–2011
Donata Kinčiūtė	Supervisor of a bachelor student Donata Kinčiūtė (Vilnius University). Research fields – microbiology and forest pathology. Title of the thesis: „Uosių džiūties sukėlėjo patogeninio grybo <i>Hymenoscyphus fraxineus</i> virulentiškumo ir ilgalaikio kultūrų saugojimo ultražemoje temperatūroje tyrimas“ [Virulence and long-term low temperature storage of isolates of the ash dieback pathogen <i>Hymenoscyphus fraxineus</i>]. Thesis defended successfully.	2014–2015

Supervision of short-term student research projects and practices:

Gabrielė Stakaitytė	Supervisor of a summer research practice by a bachelor student Gabrielė Stakaitytė (St. Andrews University, Scotland). Project title: „Paprastojo uosio (<i>Fraxinus excelsior</i> L.) džiūties tyrimai“ [Investigations into dieback of <i>Fraxinus excelsior</i> L.]. Students' practice was organised under the project “Promotion of Students' Scientific Activities”, funded by the European Union Structural Funds through Research Council of Lithuania.	2010 06 02 – 2010 08 02
Goda Norkutė	Supervisor of a research project of a bachelor student Goda Norkutė (Vilnius University). Project title „Guobų maro sukėlėjo <i>Ophiostoma ulmi</i> sensu lato (s.l.) populiacijų ir kitų ligos pažeistą medieną kolonizuojančių grybų įvairovės tyrimai“ [Study of populations of <i>Ophiostoma ulmi</i> sensu lato (s.l.), the causal agent of Dutch Elm Disease, and communities of fungi colonizing elm wood affected by the disease]. The research project was implemented under the project “Promotion of Students' Scientific Activities”, funded by the European Union Structural Funds through Research Council of Lithuania.	2010 10 15 – 2011 03 15

Žygimantas Valiuška Supervisor of a summer research practice by a bachelor student Žygimantas Valiuška (Vilnius University). Project title: „Invazinių *Phytophthora* genčiai priklausančių mikroorganizmų identifikavimas ir populiacijų molekulinis charakterizavimas“ [Identification of microorganisms in *Phytophthora* genus and molecular characterization of their populations] The research project was implemented under the project “Promotion of Students’ Capabilities to Implement R&D Activities”, funded by Research Council of Lithuania. 2019 07 01 – 2019 08 31

OTHER

Expert activities:

- Since May 2011 – **scientific expert** for Lithuanian Agency for Science, Innovation and Technology (MITA).
- In June 2014, served as a **foreign expert** for Latvian Science Council to evaluate proposals for national research programme „Research into forest and earth entrails resources, sustainable use - new products and technologies“. In 2016, served as a foreign expert for The Administration of Studies and Research (*Studiju un zinātnes administrācija*) Council to evaluate results/report of this national research programme.
- In September-October 2017, served as a **foreign expert** for The Estonian Research Council to evaluate application of post-doctoral research project “Massive invasions of forest pathogens to Northern Europe: early detection of new pathogens, determination of the pathways and modes of their arrival and search of the possibilities of their obstruction”.

Since 2014 V. Lygis is a **member of joint doctoral committee** of Vilnius University and Nature Research Centre (Research area - Natural Sciences, Research field - Botany).

Served as a member of defence councils for dissertations of Genovaitė Marija Žižytė, Algirdas Ivanauskas and Irena Nedveckytė (joint doctorship of Nature Research Centre and Vilnius University; theses defended in 2010, 2014 and 2015, respectively), Similga Černulienė and Asta Dofartė (joint doctorship of Lithuanian Research Centre for Agriculture and Forestry and Aleksandras Stulginskis University/ Vytautas Magnus University Agriculture Academy; theses defended in 2018 and 2021, respectively), Indulis Brauners and Ilze Matisone (Latvia University of Life Sciences and Technologies; theses defended in 2018 and 2020, respectively). In 2014, acted as an opponent in defence of Tatjana’s Iznova’s (Vilnius University) dissertation.

Served as a Referee for more than 15 scientific papers submitted to journals of WoS Master Journal List:

Forest Ecology and Management, Forestry (Oxford), Scandinavian Journal of Forest Research, CAB Reviews, iForest - Biogeosciences and Forestry, Plant Pathology, Forests, Forest Ecology and management, Forest Pathology, Baltic Forestry.

Participation in international non-research networks/projects:

2004–2005: EUFORGEN (European Forest Genetic Resources Programme) - national coordinator;
2004 to present: participation in a network of European forest tree breeders “Field Geneticists Network” (FGN).