CURRICULUM VITAE

Dr. Robert Pal, Ph.D.

Professor, Director of Restoration

WORK ADDRESS

Department of Biological Sciences
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EDUCATION

Habilitation	University of Pécs, Hungary, 2012
Ph.D.	Biology (Botany/Plant Ecology), University of Pécs, Hungary, 2007
M.S.	Agricultural Sciences, University of West-Hungary, Hungary, 2000

WORK EXPERIENCE

Montana Tech, Dept. of Biological Sciences, US	Full Professor – Director of Restoration (2023-present)
Montana Tech, Dept. of Biological Sciences, US	Tenure (2021)
Montana Tech, Dept. of Biological Sciences, US	Associate Professor– Director of Restoration (2018-2023)
Montana Tech, Dept. of Biological Sciences, US	Assistant Professor – Director of Restoration (2015-2018)
University of Pécs, Department of Ecology, Hungary	Associate Professor (2013-2015)
University of Montana, US	Marie Curie Research Fellow (2012-2015)
University of Pécs, Hungary	Tenure (2012)
University of Camerino, Italy	Erasmus Visiting Professor (2011)
University of Montana, US	Fulbright Researcher (2009)
University of Pécs, Dept. of Botany, Hungary	Assistant Professor (2007-2013)
University of Camerino, Italy	Erasmus Visiting Professor (2008)
University of Pécs, Dept. of Botany, Hungary	Teaching Assistant (2006-2007)
University of Camerino, Italy	Erasmus Visiting Teaching Staff (2005)
University of Pécs/Hungarian Academy of Sciences	Research Assistant (2003-2006)
University of Pécs, Dept. of Botany, Hungary	Ph.D. Student / Teaching Assistant
IRE Agricultural Worldwide, Australia	Agricultural Intern (1998-1999)
Aarhus University, Denmark	Agricultural Intern (1997)
Kibbutz Bar-Am, Israel	Agricultural Intern (1996)

HONORS AND AWARDS

- Merit Award for Exceptional Achievement in Teaching, Service, and Scholarship (2020, 2023)
- Rose and Anna Busch Faculty Achievement Award for Teaching and Scholarship Excellence (2020)
- Distinguished Researcher Award, Montana Tech (2018)
- Marie Curie Researcher Award, The University of Montana & The University of Pecs (2012-2014)
- Zólyomi Bálintné Barna Piroska Award (Hungary 2011)
- Fulbright Researcher Award, University of Montana, Missoula, (2009)

LANGUAGE SKILLS

Hungarian – mother tongue, **English** – fluent (C1 exam), **German** – fluent (B2 exam)

TEACHING EXPERIENCE

Courses taught at present for undergraduate and graduate students at Montana Tech (all courses taught at both 400 and 500 levels): Restoration I-II (2015-), Restoration Seminar (2015-), Discussions in Restoration (2015-), Restoration Capstone (2016-), Restoration Field Practicum (2016-), Principles of Habitat Typing (2017-), Restoration Field Methods (2020-).

Courses taught earlier for undergraduate and graduate students at the University of Pécs, in Hungarian: Field Studies in Plant Ecology (2000-2008), Plant ecology lab (2003-2007), Field Botany (2004-2007), Floristics (2004-2007), Plant Taxonomy lab (2000-2014), Taxonomical field studies (2000-2014), Ecological Basis of Environmental Protection (2004-2014), Weeds (2006-2014), Knowledge of Bibliography (2008-2014), Applied Botany (2009-2014), Anthropogenic Communities (2010-2014), Anthropogenic communities lab and field study (2010-2014).

Courses taught in the frame of the Erasmus program for undergraduate students across Europe in English since 2007: Plant Ecology, Plant Taxonomy, Weed Biology, Weed Ecology, Invasive Plant Science

Ph.D. courses: Relations in Synbiology (2011-)

ACADEMIC MENTORING

BSc – Mentored **6** undergraduate students at the University of Pecs, Hungary; **1** undergraduate at the University of Montana, USA; **8** undergraduates at Montana Technological University, USA.

MSc – Mentored **10** graduate students at the University of Pecs, Hungary; **21** graduate students at Montana Technological University, USA.

Ph.D. – Mentored Ph.D. recipients: *Henn Tamás* (Univ Pecs – defended 2016); *Nagy Dávid* (Univ Pecs – defended 2018); *Filep Rita* (Univ Pecs - defended 2018), *Krishan Kaushik* (Univ Pecs – defense expected in 2024), *Scott Robinson* (the University of Montana – defense expected 2024).

Restoration Certificate - Mentored **35** students at Montana Technological University.

RESEARCH INTEREST

Restoration Ecology

- Restoration of mining impacted landscapes
    - Seed bank activation
    - Designing of native seed mixes
    - Phytoremediation

Biological Invasions

- Biogeography, phenotypic plasticity
- Plant-plant, plant-soil, plant-microorganisms and plant-herbivore interactions
- Competition, diversity loss

Ecology of Anthropogenic Habitats

- Ecology of agricultural and urban habitats

Plant taxonomy and vegetation science

- Taxonomy of weeds
- Weed communities
- Flora and vegetation mapping
- Building of phytosociological database
- Red lists

SELECTED RESEARCH GRANTS

- 2022-2025: Mobility of higher education students and staff supported by external policy funds (ERASMUS+). European Commission KA171-HED; 2022-2025. Joint grant with the University of Camerino, Italy and the Cincinnati University; PI **€20,820**
- 2021-2022: CFR Floodplain and Riparian Habitat Monitoring. Natural Resource Damage Program (NRDP) grant 700146; PI **$15,675**
- 2021-: Native Plant Restoration Program. Natural Resource Damage Program (NRDP) grant 80006-10293; PI **$1,000,000**
- 2013-2021: Restoring Native Plant Diversity. Natural Resource Damage Program (NRDP) grant 80006-10293; PI **$1,000,000**
- Proactive management models for the effects of climate change on the range expansion of invasive species. Obama Singh 21st Century Knowledge Initiative Grant 2016-2019; PI **$243,900**
- Montana Tech New Faculty Seed Grant 2016-2017; PI **$7,000**
- Relationship between Site Contamination and Re-vegetation Success in Butte, BNRC BAO 2016 Small Project Grant; PI **$11,170**
- A Restoration Management System for Projects in Butte Area One, BNRC BAO 2016 Small Project Grant; PI **$4,900**
- Montana Tech Greenhouse, BNRC BAO 2016 Small Project Grant; CO-PI **$ 85,747**
- Comprehensive Remediation of Heavy Metal and Arsenic Contaminated Soil. MT DNRC RDPG 2016; PI **$40,041**
- A GIS Model to Guide Re-vegetation Efforts in Butte, BNRC BAO 2015; PI **$4,000**
- 2007-2011: Weed-Fungus-Biogeography Project (US National Science Foundation); **$625,000**
- 2007-2008: V. Nationwide Weed Survey (Ministry of Agriculture and Rural Development); Collaborator **$192,500**
- 2005-2007: Intensive production and utilization of biomass as a renewable energy source and security of production in ecological point of view; NKFP 3A/061/2004; Collaborator **$1,935,000**
- 2002-2005: "Hungarian Natural Vegetation Heritage: mapping and evaluation" NKFP (National Development Program); 3B/0050/2002; Collaborator
- 2001-2005: Phytosociological investigations of extensive cultivated arable fields in North-West-Hungary; OTKA F038119; Co-PI **$22,935**
- 2001-2004: Land rehabilitation by using composted wastes in South-West Hungary; 2001/173 NKFP; Collaborator **$1,525,000**

NATIONAL AND INTERNATIONAL RESEARCH COLLABORATIONS

- Hosting a Fulbright Researcher at the University of Pecs, Hungary: **Emily Rauschert** FULBRIGHT recipient (from Pennsylvania State University) (January-July 2012), *Modeling the spread and local dynamics of invasive goldenrods in Hungary for improved management.*
- **Alysia Cox** (Montana Technological University, USA) – *Exploring the Interplay of Geochemistry and Vegetation Composition in Yellowstone Hot Springs Ecosystems*.
- **Giandiego Campetella** (University of Camerino, Italy) - *Unveiling the Significance of Compositional Diversity to Characterize Forest Successional Stages*.
- **Ragan M. Callaway** (University of Montana, USA), **Christoph Rosche**, **David Nagy** (Martin Luther University, Germany), **Huixuan Liao** (Sun Yat-sen University, China) - *Transcontinental Exploration of Invasive Plant Species.*
- **Wenbo Luo** (Northeast Normal University, China) – *Unraveling Plant-Soil Feedback Mechanisms.*
- **Manzoor A. Shah** (University of Kashmir, India) – Impacts of *Conyza canadensis*, *Sisymbrium loeselii*, and *Phragmites australis* on Native Plant Diversity: A Comparative Study in Native and Non-Native Ranges

PUBLICATIONS

Luo W., Liao H., Pal R.W., Callaway R. (2025): Competition on a neutral playing field: invaders still win and size still matters… sometimes. Proceedings of the Royal Society B. (Accepted)

Nagy D.U., Thoma A.E., Al-Gharaibeh M., Callaway R.M., Flory S.L., Frazee L.J., Hartmann M., Hensen I., Jandová K., Khasa D.P., Lekberg Y., **Pal R.W.**, Samartza I., Shah M.A., Sheng M., Slate M., Stein C., Tsunoda T., Rosche C. (2024): Among-population variation in drought response is consistent across life stages but not between native and non-native ranges. *New Phytologist* 243(3): 922-935 DOI:10.1111/nph.19895

Kaushik K., **Pal R.W.**, Somfalvi-Tóth K.; Riyazuddin R., Rudolf K., Morschhauser T. (2023): What Do Cross-Range Germination, Growth, and Interaction Studies Reveal about the Behaviour of an Expansive Plant Species? *Agriculture* 13, 2171. https://doi.org/10.3390/agriculture13112171

Hábenczyus A.A., Tölgyesi Cs., **Pál R.**, Kelemen A., Aradi E., Bátori Z., Sonkoly J., Tóth E., Balogh N., Török P. (2022): Increasing abundance of an invasive C4 grass is associated with larger community changes away than at home. *Applied Vegetation Science* 2022;25:e12659. doi.org/10.1111/avsc.12659

Nagy D.U., Rauschert E.S.J., Callaway R.M., Henn T., Filep R., **Pal R. W.** (2022): Intense mowing management suppresses invader, but shifts competitive resistance by a native to facilitation. *Restoration Ecology* DOI: 10.1111/rec.13483

Sheng M., Rosche C., Al-Gharaibeh M., Bullington L.S., Callaway R.M., Clark T., Cleveland C.C., Duan W., Flory S.L., Khasa D.P., Klironomos J.N., McLeod M., Okada M., **Pal R.W.**, Shah M.A., Lekberg Y. (2022): Acquisition and evolution of enhanced mutualism—an underappreciated mechanism for invasive success? *The ISME Journal* by *Springer Nature*. doi.org/10.1038/s41396-022-01293-w

Filep R., Lengyel A., Cook B.J., Farkas Á., Nagy K., Nagy D.U., Imri Á., Czakó-Vér K., **Pal R.W.** (2021): *Helianthus tuberosus* at home and away: stronger ecological impacts in invaded than in native range are not explained by arbuscular mycorrhizal colonization. *Preslia* 93: 363–376. DOI: 10.23855/preslia.2021.363

Török P., Schmidt D., Bátori Z., Aradi E., Kelemen A., Hábenczyus A.A., Cando P.D., Tölgyesi C., **Pál R.W.**, Balogh N., Tóth E., Matus G., Táborská J., Sramkó G., Laczkó L., Jordán S., McIntosh-Buday

A., Kovacsics-Vári G., Sonkoly J. (2021): Invasion of the North American sand dropseed (*Sporobolus cryptandrus*) – A new pest in Eurasian sand areas? Global Ecology and Conservation 32:e01942

Liao H.**, Pal R. W.**, Niinemets Ü., Bahm M., Cerabolini B.E.L., Peng S. (2021): Different functional characteristics can explain different dimensions of plant invasion success. *Journal of Ecology*: 109:1524–1536. **Pal R.W. and Liao H. are joint first authors in this paper.** DOI: 10.1111/1365-2745.13575

Lucero J., Nafiseh A., Meyer S., **Pal R.W.,** Fletcher R.A., Nagy D.U., Callaway R.M.; Weisser W. (2020): Escape from natural enemies depends on the enemies, the invader, and competition. *Ecology and Evolution*: 10:10818–10828 DOI: 10.1002/ece3.6737

Nagy D.U., Rauschert E.S.J., Henn T., Cianfaglione K., Stranczinger Sz., **Pal R. W.** (2020): The more we do, the less we gain? Balancing effort and efficacy in managing the *Solidago gigantea* invasion? *Weed Research*: 60:232–240 DOI: 10.1111/wre.12417

Osabutey A., Zodrow K., Marques P., **Pal R.W.** (2020): Amendments Activate Soil Seed Bank in Greenhouse Study, Indicating Potential for Improved Restoration Outcomes. *Ecological Restoration*. 38(4): 228-236. doi: 10.3368/er.38.4.228

Pal R.W., Maron J.L., Nagy, D.U., Waller P.W., Tosto A., Liao H., Callaway R.M. (2020): What happens in Europe stays in Europe: apparent evolution by an invader does not help at home. *Ecology*: 101(8):e03072. doi: 10.1002/ecy.3072

Rosche C., Hensen I., Schaar, A., Zhera U., Jasieniuk M., Callaway R., Khasa D., Al-Gharaibeh M., Lekberg Y., Nagy D., **Pal R.W.** et. al. (2019): Climate outweighs native vs. non-native range-effects for genetics and common garden performance of a cosmopolitan weed. *Ecological Monographs*: 89(4), e01386 *https://doi.org/10.1002/ecm.1386*

Nagy D.U., Stranczinger Sz., Godi A., Weisz A., Rosche C., Suda J., Mariano M., **Pal R.W.** (2018): Does higher ploidy level increase the risk of invasion? A case study with two geo-cytotypes of *Solidago gigantea* Aiton (Asteraceae). *Journal of Plant Ecology* 11(2): 317-327.

Filep R., **Pal R.W.**, Balazs V.L., Mayer M., Nagy D. U., Cook B.J., Farkas A. (2016): Can seasonal dynamics of allelochemicals play a role in plant invasions? A case study with *Helianthus tuberosus* L. *Plant Ecology* 217: 1489-1501.

Henn T., Nagy D.U., **Pál R.W.** (2016): Adobe bricks can help identify historic weed flora – a case study from south-western Hungary. *Plant Ecology & Diversity* 9(1): 113-125.

Liao H., Gurgel P.C.S., **Pál R.W.,** Hooper D., Callaway R.M. (2016): *Solidago gigantea* plants from nonnative ranges compensate more in response to damage than plants from the native range. Ecology 97(9): 2355–2363.

Liao H., Luo W., **Pál R.**, Peng S., Callaway R.M. (2016): Context-dependency and the effects of species diversity on ecosystem function. *Biological Invasions* 18(10): 3063–3079.

Henn T., **Pál R.W.** (2015): Evaluation of desiccated and deformed diaspores from natural building materials. *Ethnobiology Letters* 6 (1): 10-24.

Ledger K.J., **Pal R.W.,**·Murphy P.,·Nagy D.U., Filep R.,·Callaway R. M. (2015): Impact of an invader on species diversity is stronger in the non-native range than in the native range. *Plant Ecology* 1-11.

Maron J., Luo W., Callaway R.M., **Pal R.W.** (2015): Do exotic plants lose resistance to pathogenic soil biota from their native range? A test with *Solidago gigantea*. *Oecologia* 179: 447-454.

Pal R.W., Chen S., Nagy D.U., Callaway R.M. (2015): Impacts of *Solidago gigantea* on other species at home and away. *Biological Invasions* 17: 3317-3325.

NATIONAL AND INTERNATIONAL CONFERENCES

- Invited Panelist at the G20/Y20 Consultation. Climate Change and Disaster Risk Reduction: Making Sustainability a Way of Life. University of Kashmir, India, 2023.
- Invited Plenary Speaker at 13th Conference on 'Advances in research of the flora and vegetation in the Carpathian Basin'. Debrecen, Hungary, 2022.
- 2021 AAAS Annual meeting on Understanding Dynamic Ecosystems (Session Organizer and Speaker)
- 59th Annual Conference of the Pacific Northwest Air & Waste Management International Section (PNWIS), October 23-25, Butte, Montana, 2019
- 8th World Conference on Ecological Restoration. September 24-28, Cape Town, South Africa, 2019
- Ecological Society of America 99th, 100th, 101th, 102th, 103rd, 104th Annual Meeting (Sacramento 2014, Baltimore 2015, Fort Lauderdale 2016, Portland 2017, New Orleans 2018, Louisville 2019)
- Mine Design, Operations & Closure Conference. May 7-9, Fairmont Hot Springs, Montana, 2019
- Society of Ecological Restoration – Northwest Chapter – Joint Regional Conference. October 15-18, Spokane, USA 2018
- 47th, 61st Annual Symposium, International Association of Vegetation Science (Hawaii, USA 2004, Bozeman, USA 2018)
- International Congress of Ecology. August 20-25, Beijing, China 2017
- 7th, 11th, 12th, 13th, 15th International Conference on the Ecology and Management of Alien Plant Invasions (Fort-Lauderdale, Florida, USA 2003, Szombathely, Hungary 2011, Pirenopolis, Brazilia 2013, Waikoloa, Hawaii, USA 2015, Lisboa, Portugal 2017)
- American Society of Mining and Reclamation Conference. June 4-9, Spokane, USA 2016
- Annual Meeting of the Weed Science Society of America (Baltimore – USA 2013)
- 9th Recent Floristic and Vegetation Research in Carpathian Basin International Conference, Gödöllő (2012)
- 15th, 16th, 17th, 18th,19th European Vegetation Survey Workshop (Catania, Rome, Brno, Pécs 2006, 2007, 2008, 2009, 2010)
- 9th Alps-Adria Scientific Workshop (Špičák, Czech Republic, 2010)
- 15th EWRS (European Weed Research Society) Symposium (Kaposvár, Hungary 2010)
- 21st, 22nd, 23rd, 24th German Conference on Weed Biology and Weed Control (Stuttgart, Hohenheim 2002, 2004, 2006, 2008)
- "Transcontinental Perspectives on Environmental Change" University of Montana - University of Pécs Joint Conference (USA, Missoula 2008)
- XVII. International Botanical Congress (Vienna, Austria 2005)
- EEAC Conference (Oxford, England 2005)
- First International Conference on Traditional Agroecosystems (Nitra, Slovakia 2005)

PROFESSIONAL ACTIVITIES

- Associate editor of Management of Biological Invasions, 2020-
- Guest Editor for special issue in Diversity, 2020-
- Member of the Editorial Board for Folia Oecologica, 2018-
- Associate Editor for Acta Botanica Hungarica, 2017-

- Reviewer for FULBRIGHT grants, 2016-
- Associate Editor for the Intermountain Journal of Sciences, 2015-
- Associate Editor for the Journal of Biology and Earth Sciences, 2011-
- Reviewer for the following peer-reviewed journals: Plant Ecology and Diversity, Biological Invasions, International Journal of Mining, Journal of Environmental Management, Reclamation and Environment, Intermountain Journal of Sciences, Intermountain Journal of Sciences, Ecology, Plant Ecology and Diversity, Journal of Applied Ecology, Annals of Botany, Ecology, Invasive Plant Ecology, Journal of Biology and Earth Sciences, Restoration Ecology, Ecotoxicology and Environmental Safety, Ecosphere, Folia Geobotanica, Oecologia, Biologia Futura, Canadian Journal of Forest Research.

MEMBERSHIPS

- Society of Ecological Restoration (2019-)
- International Association for Vegetation Science (2018-)
- American Association for the Advancement of Science (2019-)
- Ecological Society of America (2014-)
- Montana Native Plant Society (2012-)
- Botanical Working Group of the Academic Committee Pécs (2005-)
- Hungarian Weed Research Society (2005-)
- Carpathes Nature Conservation Foundation (member of the Advisory Board, 2002-)

COMMITTEES SERVED

- Distinguished Researcher Awards Committee at Montana Tech (2019, 2025; Chair in 2020)
- Merit Committee at Montana Tech (2021, 2025)
- Rose and Anna Busch Committee Member at Montana Tech (2021)
- Strategic Planning Team at Montana Tech (2020-)
- Faculty Senate Committee at Montana Tech (from 2020- substitute)
- Responsible Professor for the Ecological Restoration MS Program at Montana Tech (2020-)
- Space and Refresh Campus Committee at Montana Tech (from 2019-2020)
- Montana Tech Campus Landscape Committee (2017-)
- Biology Representative of the Research Advisory Committee at Montana Tech (2016-20; 2025-)
- Search Committee Member for Vice Chancellor of Research and Dean of the Grad School, and search committee member for three assistant professors in Biological Sciences at Montana Tech.
- Graduate committees – Served in 11 graduate committees at Montana Tech, and in 1 graduate committee at Martin-Luther-University, Institute of Geobotany/Plant Ecology, Halle, Germany.
- Admin for the Committee of Ph.D. & Habilitation Affairs, University of Pécs, Hungary (2008-2012)

COMMUNITY SERVICE

- President of the Montana Native Plant Society (2023-)
- Vice President of the Montana Native Plant Society (2021-2023)
- Providing technical support for the Butte Reclamation and Evaluation System (2017-)
- Volunteer for Clark Fork Watershed Education Program (2015-)

Butte, 02/08/2025 Dr. Robert Pal