

Roger T. Koide *March 2020*

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EDUCATION

Ph.D. in Botany, University of California, Berkeley, California (1984)
B.A. in Zoology (Magna cum laude), Pomona College, Claremont, California (1980)

PROFESSIONAL EXPERIENCE

Professor, Department of Biology, Brigham Young University (2012-present)
Professor, Department of Horticulture, Penn State University (1996-2012)
Associate Professor, Department of Horticulture, Penn State University (1992-1996)
Assistant Professor, Department of Biology, The Pennsylvania State University (1986-1992)
Postdoctoral Affiliate, Biological Sciences, Stanford University, with H.A. Mooney (1984-1986)
Teaching Assistant, Department of Botany, University of California, Berkeley (1981-1984)
Research Assistant in Botany, University of California, Berkeley (1982-1984)

NATIONAL and INTERNATIONAL HONORS

Japan Society for the Promotion of Science Fellowship (2018)
Fulbright Senior Scholar Award, Australia (1992-1993)
NSF Presidential Young Investigator Award (1987-1992)

RESEARCH GRANTS and FELLOWSHIPS

Pending:

JSPS US Alumni Association Bridge Fellowship

Current:

Chinese Ministry of Education, 111 Program for International Cooperation between BYU and Nanjing Agricultural University, China, 2016 – 2020 (Yang, Koide), for international exchanges, undisclosed level of funding.

Sant Endowment, BYU, \$14,000, 2019

Previous:

MEG, BYU, \$20,000, 2018.

Japan Society for the Promotion of Science, Invitational Fellowship: Potential role and utilization of mycorrhizal fungi for biodiversity and sustainable agriculture (Koide, Hashimoto), \$11,000 Total (June – August 2018 – Short term visit for foreign scientists).

USDA, NIFA, Greenhouse gas life cycle analysis of biochar effects on marginal land conversion to switchgrass production (Koide PI, 4 co-PIs), \$963,539 Total (1/2011-12/2017)

Annalee Naegle Redd Assistantship, Stress tolerance of *Populus tremuloides* (quaking aspen) controls population stability: the role of fungal endophytes. (Koide PI), \$11,100 Total (5/2016 – 5/2017)

- BYU HIDRA fellowship, to support Na Yin (2014-2017)
- Roger and Victoria Sant Educational Endowment for a Sustainable Environment, Climate Change Research in Natural and Agricultural Ecosystems (Koide PI), \$10,000 Total (2014-2015)
- Roger and Victoria Sant Educational Endowment for a Sustainable Environment, Biogeography of leaf endophytic fungi (Koide PI), \$10,000 Total (2016-2017)
- NESARE, Sustainable cropping systems for dairy farms in the northeastern US, Koide one of 8 co-PIs, \$400,000 Total (2009-2013)
- SunGrant (DOT), Contrasting soil carbon sequestration by soybean and canola, Koide sole PI, \$99,939 Total (2008-2012)
- PA Soybean Promotion Board, Soil carbon sequestration, Koide sole PI, \$20,000 (2008-2010)
- NSF, Nutrient foraging by mycorrhizal roots of different morphology: are roots and fungi complementary? (D. Eissenstat PI, R Koide co-PI), \$554,473 Total (2011- 8/31/2016)
- NSF, Variation in saprotrophy among ECM fungi, Koide sole PI, \$66,195 (2006-2009)
- NSF, Temperature acclimation of roots and mycorrhizal fungi, D. Eissenstat and R. Koide PIs, \$265,187 Total (2003-2006)
- NSF, Effects of VAM Infection on Male Function of Plants, A. Stephenson and R. Koide PIs, \$254,414 Total (1995-1999)
- NSF, Mycorrhizas and Plant Fitness, Koide sole PI, \$270,000 Total (1992-1996)
- NSF, Presidential Young Investigator Award, Koide sole PI, \$312,000 Total (1987-1992)
- USDA, NIFA, Precision Zonal Management Systems for Resilient Cereal Yields Under Variable Climates, Koide one of several co-PIs, \$4.3 million Total, \$956,604 to Penn State team including Koide (1/2011-12/2016)
- USDA, Resource partitioning in the forest floor by hyphae of ectomycorrhizal fungi, Koide sole PI, \$270,000 Total (2002-2006)
- USDA, Biotic and edaphic controls of ectomycorrhizal community structure and function, Koide one of three co-PIs, \$320,000 Total (1999-2002).
- National Geographic Society, Plant-Microbial Symbioses in Maize/Pigeonpea Intercropping Systems in Zimbabwe, Koide sole PI, \$9,000 Total (1999-2004)
- A.W. Mellon Foundation, The Role of Ectomycorrhizal Fungi in the Nitrogen Economy of *Pinus resinosa*, Koide sole PI, \$440,000 Total (1998-2004)
- A.W. Mellon Foundation, Mycorrhizal Mycelium Persistence, Koide sole PI, \$187,000 Total (1993-2000)
- A.W. Mellon Foundation, Plant/Soil Community Biology, Koide sole PI, \$125,000 Total (1990-1995)
- A.W. Mellon Foundation, Plant/Soil Ecology, Koide sole PI, \$127,000 Total (1988-1992)
- Fulbright Senior Scholarship, Australia (6 mos. study leave, 1992-1993)

American Floral Endowment, Mycorrhizal Fungi in Horticulture, R. Koide and J. Holcomb co-PIs, \$23,630 Total (1997-1998)

American Floral Endowment, Mycorrhizal Fungi in Horticulture, R. Koide and J. Holcomb co-PIs, \$22,513 Total (1996-1997)

Agriculture Experiment Station, Efficiency of Plant Root Systems: A Quantitative Approach, Koide one of three co-PIs, \$100,800 Total (1991-1994)

Agriculture Experiment Station, Efficiency of Carbon Utilization in Mycorrhizal and Non-Mycorrhizal Plants, Koide sole PI, \$6,000 Total (1988-1990)

Penn State Research Initiation Grant, Mycorrhizal Infection on Crop and Wild Plant Growth, Koide sole PI, \$9,474 Total (1988-1989)

Biotechnology Institute Grant, Effects of Mycorrhizal Infections on Roots, Koide sole PI, \$9,747 Total (1987-1988)

University of California, Berkeley

University of California Regents Fellowship in Botany (1984, 1980-1981)

ARCO (Atlantic Richfield) Fellowship in Botany (1983-1984)

University of California Appropriate Technology Grant (1983)

University of California Chancellor's Patent Fund Grant (1982)

OTHER HONORS

Member, Phi Beta Kappa, Pomona College (1980)

ARCS Foundation Scholarship, Pomona College (1979-1980)

Tileston Prize in Physics Pomona College (1979)

Honors at Entrance Pomona College (1976)

National Merit Scholar, El Cerrito High School, California (1976)

SPEAKING ENGAGEMENTS

Invited seminar and symposium talks

2019

Zhejiang University, College of Life Sciences, Hangzhou, PRC

2018

Utah State University, Dept. Biology

Obihiro University, Dept. Agro-environmental Science

Tokachi Growers Group, Hokkaido Agricultural Research Center, NARO, Memuro

Japan Mycorrhiza Society, Tokyo (Keynote)

Japanese Cedar Project meeting, Forest Research Institute, Kyoto

Doshisha University (2 lectures), Kyoto

Hokkaido University (3 lectures), Sapporo

2017

International Conference on Mycorrhizas. International Mycorrhiza Society, Prague

Chinese Academy of Forestry, Beijing, China

Sichuan Academy of Forestry, Chengdu, China

2016

Japanese Mycological Society, Invited Keynote Speaker

Zhejiang University, Hangzhou, China

- 2015
Utah Valley University, Department of Biology
- 2014
Mycological Society of America, Invited Symposium Speaker: Fungal functional traits in a changing world
University of Minnesota, Department of Plant Biology
Northern Arizona University, Department of Biological Sciences
- 2013
Maryland Horticultural Society
Chesapeake Conservation Landscaping Council
- 2011
Maryland Horticultural Society
Tottori University (Japan)
Brigham Young University, Department of Biology
- 2010
Zhejiang University, College of Life Sciences
University of Illinois, Chicago, Department of Biological Sciences
Lund University, Sweden, Department of Microbial Ecology
Gardenwise, Penn State Extension Conference sponsored by York Master Gardeners
- 2009
Tottori University (Japan)
INRA-Nancy (France), Workshop on Structure and Function in Ectomycorrhizal Communities
Native Plants in the Landscape Conference, Millersville University
- 2008
Northeast Renewable Energy Conference, State College, PA
University of Georgia, Department of Plant Biology
USDA – ARS Pasture Systems and Watershed Management Research Unit
Native Plants in the Landscape Conference, Millersville University
- 2007
Brigham Young University, Department of Microbiology
University of Pennsylvania, Department of Biology
Fordham University, Department of Biology
West Virginia University, Department of Biology
University of Georgia, Department of Plant Biology (cancelled due to illness)
- 2006
International Mycological Congress, Cairns, Australia
International Conference on Mycorrhizas, Granada, Spain
- 2005
Northern Arizona University, Department of Biology
Mycological Society of America / Mycological Society of Japan, Hilo, HI
- 2004
Hofstra University, Department of Biology
Shanghai Jiao Tong University, College of Life Sciences and Technology, Shanghai, China
Zhejiang University, College of Life Sciences, Hangzhou, China
Zhong Shan University, College of Life Science, Guangzhou, China
- 2003

- Université Paul Sabatier, Equipe de MYCOLOGIE VEGETALE
Wageningen University, Department of Soil Quality
- 2002
Keynote address: Past progress and future perspective in AM research in Europe. AM Research in Europe - the Dawning of a Millenium, Meeting of COST 8.38, Pisa, Italy.
Yokohama National University, Department of Soil Ecology
- 2001
University of Illinois, Chicago, Department of Biological Sciences
International Society for Root Research, Nagoya, Japan
- 1998
Rutgers University, Department of Biology and Institute of Marine and Coastal Sciences
12th Annual Symposium in Plant Physiology, Phosphorus in Plant Biology, The Pennsylvania State University
National Grassland Research Institute, Department of Ecology, Nishinasuno, Tochigi, Japan
Japan Conference on Mycorrhiza 1998, Nishinasuno, Tochigi, Japan
Nagoya University, Department of Crop Science, Nagoya, Japan
Consortium of Japanese Mycorrhiza Inoculum Producers, Tokyo, Japan
- 1997
Phytochemical Society of North American and Phytochemical Society of Europe, Noordwijkerhout, The Netherlands
11th Annual Symposium in Plant Physiology, Radical Biology, The Pennsylvania State University
Mycological Society of America, University of Montreal
- 1996
Ohio State University, Department of Plant Science
Premier Tech (Premier, Riviere-du-Loup, Quebec)
- 1995
University of Guelph, Department of Botany
- 1994
Rutgers University, Department of Biology
Millersville University, Department of Biology (canceled due to weather)
Lycoming College, Department of Biological Sciences
- 1993
University of Queensland, Brisbane, Queensland, Australia, Department of Botany
University of Queensland, Brisbane, Queensland, Australia, Department of Agriculture
University of Sydney, Sydney, New South Wales, Australia, School of Biology
University of Western Australia, Nedlands, Western Australia, Department of Soils and Plant Nutrition
University of Adelaide, Adelaide, South Australia, Department of Botany
Waite Agricultural Research Institute, Glen Osmond, South Australia
Ninth North American Conference on Mycorrhiza, University of Guelph
- 1992
International Symposium on Management of Mycorrhizas in Agriculture, Horticulture and Forestry, Perth, Western Australia (did not attend)
University of Nevada, Las Vegas, Department of Biology
Utah State University, Department of Range Science

1991

The Pennsylvania State University, Department of Plant Pathology
 The Pennsylvania State University, Department of Agronomy (Soils group)
 USDA Appalachian Soil and Water Conservation Research Laboratory, Beckley, WV
 Lebanon Valley College, Department of Biology
 University of Arizona, Department of Ecology and Evolutionary Biology
 Third European Symposium on Mycorrhizas, Sheffield, England
 USDA ARS, Eastern Regional Research Laboratory, Philadelphia
 The Pennsylvania State University, Department of Biology

1990

Eighth North American Conference on Mycorrhiza, Jackson Hole (2 invited symposium talks)

The Pennsylvania State University, Program in Ecology

1988

University of Georgia, Department of Botany
 The Pennsylvania State University, Department of Plant Pathology

1984

University of California, Department of Botany
 University of Utah, Department of Biology
 Harvard University, Department of Organismic and Evolutionary Biology
 University of Missouri, St. Louis. Department of Biology

Other Oral or Poster Presentations

ESA annual meeting (2019) Louisville, KY (K Ricks, R Koide)
 ASA, CSSA, CSA annual meeting (2018) Baltimore, MD (P. Ewing, R. Koide, A. Williams, N. Jordan)
 ESA (2018), New Orleans, LA (N. Yin & R. Koide)
 Courtyard at Jamestown Assisted Living, Provo UT (2017)
 ESA (2017), Portland, OR (K. Ricks & R. Koide)
 Soil Ecology Society (2017), Fort Collins, CO (Na Yin & R. Koide)
 Tri-Societies (ASA, SSSA, CSSA) annual meeting (2016), Phoenix, AZ (L. Atwood et al.)
 Tri-Societies (ASA, SSSA, CSSA) annual meeting (2016), Phoenix, AZ (A. Williams et al.)
 Tri-Societies (ASA, SSSA, CSSA) annual meeting (2016), Phoenix, AZ (R. Smith et al.)
 Tri-Societies (ASA, SSSA, CSSA) annual meeting (2015), Minneapolis, MN (L. Atwood et al.)
 ESA (2015) Baltimore, MD (L. Atwood et al.)
 Tri-Societies (ASA, SSSA, CSSA) annual meeting (2013), Tampa FL (R.H. Skinner et al.)
 ESA (2013) Minneapolis, MN (L Cheng et al.)
 Tri-Societies (ASA, SSSA, CSSA) annual meeting (2013), Tampa, FL (K Haider et al.)
 SES (2013) Rutgers University (C. Fernandez first author). Towards a mechanistic understanding of ectomycorrhizal litter decomposition dynamics.
 Tri-Societies (ASA, SSSA, CSSA) annual meeting (2012), Cincinnati, OH, 2 posters
 International Biochar Initiative, Fourth annual Conference (2012), Beijing (Nguyen et al.)
 ESA (2012) Portland, OR (Chris Fernandez, speaker) Melanin: a functional trait conferring tolerance to water stress in ectomycorrhizal fungi.
 ESA (2011) Austin, TX (Chris Fernandez, speaker)
 ESA (2009) Albuquerque, NM (Hoeksema JD et al.)
 ESA (2008) Milwaukee, WI. (Malcolm GM (speaker) with López-Gutiérrez JC, Koide RT, Eissenstat DM)

Penn State University, Scranton, Biology, GM Malcolm, speaker, with co-authors López-Gutiérrez JC, Koide RK, Eissenstat DM

Cambridge University, Department of Zoology, Ecology Lunchtime Series, GM Malcolm, speaker, with co-authors López-Gutiérrez JC, Koide RK, Eissenstat DM

MEEC (Midwest Ecology & Evolution Conference, 2007) Kent, OH, GM Malcolm, speaker, with co-authors López-Gutiérrez JC, Koide RK, Eissenstat DM

ASPB (2007) Chicago (JN Sharda, RT Koide)

ESA (2006) Memphis (G Malcolm, RT Koide)

ICOM 5 (2006) Granada (G Malcom, RT Koide)

ICOM 5 (2006) Granada (Y Lekberg, RT Koide)

ESA (2005) Montreal (G Malcolm, RT Koide)

SES (2005) Chicago, IL (YL Besmer, RT Koide, J Rohr, L Aldrich-Wolfe, J Morton)

ICOM4 (2003) Montreal, Quebec, Canada (YL Besmer, RT Koide, SJ Twomlow)

ICOM4 (2003) Montreal, Quebec, Canada (B Xu, JN Sharda, RT Koide)

ICOM4 (2003) Montreal, Quebec, Canada (T Wu, JN Sharda, RT Koide)

ICOM4 (2003) Montreal, Quebec, Canada (L Jonsson, J Dighton, J Lussenhop, RT Koide)

SES (2003) Palm Springs, CA (YL Besmer, RT Koide, SJ Twomlow)

SES (2003) Palm Springs, CA (N Kaneko, TM Ito, A Toyota, M Hashimoto, RT Koide)

SES (2003) Palm Springs, CA (B Xu, JN Sharda, RT Koide)

Fertility in Southern Africa (2002) Zimbabwe (YL Besmer, RT Koide, SJ Twomlow)

ESA (2002) Tucson, AZ (with LM Jonsson, J Dighton, J Lussenhop)

ESA (2002) Tucson, AZ (with YK Besmer & RJK Meyers)

ESA (2001) Madison Wisconsin (with L. Jonsson, J. Dighton, J Lussenhop)

ICOM 3 (2001) Adelaide, Australia (with Ian Dickie)

ICOM 3 (2001) Adelaide, Australia (with Y. Besmer)

ICOM 3 (2001) Adelaide, Australia (with A Nakano, K Takahashi, M Kimura)

Soil Ecology Society (2001), Georgia, (with T. Wu)

Soil Ecology Society (2001), Georgia, (with I Dickie)

Soil Ecology Society (2001), Georgia, (with Y. Besmer)

Ecological Society of America (2001) (with I. Dickie & K. Steiner)

Ecological Society of America (2001) (with L. Jonsson, J. Dighton, J. Lussenhop)

Undergraduate and Graduate Student Research Exhibition, College of Agricultural Sciences, Penn State University, March 14-15, 2000 (posters by A. Fayish, I. Dickie, K. Steiner, R. Koide; and I. Dickie, K. Steiner, R. Koide)

Sustainable Management of Soil Organic Matter, British Society of Soil Scientists, September 1999, Edinburgh, Scotland

International Conference on Mycorrhiza, 5-10 July 1998, Uppsala, Sweden

Department of Biological Sciences, Stanford University, 5 March 1996

Department of Integrative Biology, University of California, Berkeley, 4 March 1996

Soil Ecology Society (1995) Colorado State University

Ecological Society of America (1991) San Antonio, Texas

Ecological Society of America (1990) Snowbird, Utah

Ecological Society of America (1989) University of Toronto

Ecological Society of America (1988) University of California, Davis

American Society of Plant Physiologists (1984) University of California, Davis

PUBLICATIONS

<https://scholar.google.com/citations?user=bOpRxPUAAA&hl=en>

<https://publons.com/researcher/2701345/roger-t-koide>

https://www.researchgate.net/profile/RT_Koide

<http://orcid.org/0000-0002-5209-5422>

Regular Peer-reviewed Research Articles

1. **Koide RT** (1985) The nature of growth depressions in sunflower caused by vesicular-arbuscular mycorrhizal infection. *New Phytologist* 99:449-462.
2. **Koide RT** (1985) The effect of VA mycorrhizal infection and phosphorus status on sunflower hydraulic and stomatal properties. *Journal of Experimental Botany* 36:1087-1098.
3. **Koide RT** (1985) The nature and location of variable hydraulic resistance in *Helianthus annuus* L. (Sunflower). *Journal of Experimental Botany* 36:1430-1440.
4. **Koide RT**, Mooney HA (1987) Revegetation of serpentine substrates: response to phosphate application. *Environmental Management* 11:563-567.
5. **Koide RT**, Huenneke LF, Mooney HA (1987) Gopher mound soil reduces growth and affects ion uptake of two annual grassland species. *Oecologia* 72:284-290.
6. **Koide RT**, Mooney HA (1987) Spatial variation in inoculum potential of vesicular-arbuscular mycorrhizal fungi caused by formation of gopher mounds. *New Phytologist* 107:173-182.
7. **Koide RT**, Huenneke LF, Hamburg S, Mooney HA (1988) Effects of fungicide, phosphorus and nitrogen applications on annual serpentine grassland communities. *Functional Ecology* 2:335-344.
8. **Koide RT**, Li M, Lewis J, Irby C (1988) Role of mycorrhizal infection on growth and reproduction of wild vs. cultivated plants. I. Wild vs. cultivated oats. *Oecologia* 77:537-542.
9. **Koide RT**, Elliott G (1989) Cost, benefit and efficiency of the vesicular-arbuscular mycorrhizal symbiosis. *Functional Ecology* 3:252-255.
10. **Koide RT**, Li M (1989) Appropriate controls for vesicular-arbuscular mycorrhiza research. *New Phytologist* 111:35-46.
11. **Koide RT**, Li M (1990) On host regulation of the vesicular-arbuscular mycorrhizal symbiosis. *New Phytologist* 114:59-64.
12. Huenneke LF, Hamburg SP, **Koide RT**, Mooney HA, Vitousek PM (1990). Effects of soil resources on plant invasion and community structure in Californian serpentine grassland. *Ecology* 71:478-491.
13. Lewis J, **Koide RT** (1990) Phosphorus supply, mycorrhizal infection and offspring vigor in two annual plant species. *Functional Ecology* 4:695-702.
14. Bryla D, **Koide RT** (1990) Regulation of reproduction in wild and cultivated *Lycopersicon esculentum* Mill. by vesicular-arbuscular mycorrhizal infection. *Oecologia* 84:74-81.
15. Bryla D, **Koide RT** (1990) The role of mycorrhizal infection in the growth and reproduction of wild vs. cultivated plants. II. Eight wild accessions and two cultivars of *Lycopersicon esculentum* Mill. *Oecologia* 84:82-92.
16. **Koide RT** (1991) Density-dependent response to mycorrhizal infection in *Abutilon theophrasti* Medic. *Oecologia* 85:389-395.
17. **Koide RT**, Li M (1991) Mycorrhizal fungi and the nutrient ecology of three oldfield annual plant species. *Oecologia* 85:403-412.
18. Lu X, **Koide RT** (1991) *Avena fatua* L. seed and seedling nutrient dynamics as influenced by mycorrhizal infection of the maternal generation. *Plant, Cell and Environment* 14:931-939.

19. Haynes B, **Koide RT**, Elliott G (1991) Phosphorus uptake and utilization in wild and cultivated oats (*Avena spp*). *Journal of Plant Nutrition* 14:1105-1118.
20. **Koide RT**, Lu X. (1992) Mycorrhizal infection of wild oats: maternal effects on offspring growth and reproduction. *Oecologia* 90:218-226.
21. Schreiner R, **Koide RT** (1993) Antifungal compounds from roots of mycotrophic and nonmycotrophic plant species. *New Phytologist* 123:99-105.
22. Schreiner R, **Koide RT** (1993) Mustards, mustard oils and mycorrhizas. *New Phytologist* 123:107-113.
23. Schreiner R, **Koide RT** (1993) Streptomycin reduces plant response to mycorrhizal infection. *Soil Biology and Biochemistry* 25:1131-1133.
24. Stanley MR, **Koide RT**, Shumway DL (1993) Mycorrhizal symbiosis increases growth, reproduction and recruitment of *Abutilon theophrasti* Medic. in the field. *Oecologia* 94:30-35.
25. **Koide RT**, Schreiner RP (1994) Alteration of nyctinastic leaf movement of *Abutilon theophrasti* Medic. (Malvaceae) by mycorrhizal infection. *Functional Ecology* 8:384-388.
26. Sanders I, **Koide RT** (1993) Nutrient acquisition and community structure in co-occurring mycotrophic and nonmycotrophic old field annuals. *Functional Ecology* 8:77-84.
27. Schreiner RP, **Koide RT** (1993) Stimulation of vesicular-arbuscular mycorrhizal fungi by mycotrophic and nonmycotrophic plant root systems. *Applied and Environmental Microbiology* 59:2750-2752.
28. Sanders I, **Koide RT**, Shumway DL (1993) Mycorrhizal stimulation of plant parasitism. *Canadian Journal of Botany* 71:1143-1146.
29. **Koide RT**, Shumway DL, Mabon SA (1994) Mycorrhizal fungi and reproduction of field populations of *Abutilon theophrasti* Medic. (Malvaceae). *New Phytologist* 126:123-130.
30. Shumway DL, **Koide RT** (1994) Within season variability in mycorrhizal benefit to reproduction in *Abutilon theophrasti* Medic. *Plant Cell and Environment* 17:821-827.
31. Shumway DL, **Koide RT** (1994) Seed preferences of *Lumbricus terrestris* L. *Applied Soil Ecology* 1:11-15.
32. Lu X, **Koide RT** (1994) The effects of mycorrhizal infection on components of plant growth and reproduction. *New Phytologist* 128:211-218.
33. Shumway DL, **Koide RT** (1994) Reproductive responses to mycorrhizal colonization of *Abutilon theophrasti* Medic. plants grown for two generations in the field. *New Phytologist* 128:219-224.
34. Smith SE, Gianninazzi-Pearson V, **Koide RT**, Cairney JWG (1994) Nutrient transport in mycorrhizas: structure, physiology and consequences for efficiency of the symbiosis. *Plant and Soil* 159:103-114.
35. Shumway DL and **Koide RT** (1995) Size and reproductive inequality in mycorrhizal and non-mycorrhizal populations of *Abutilon theophrasti*. *Journal of Ecology* 83:613-620.
36. Lau T-C, Lu X, **Koide RT**, Stephenson AG (1995) Effects of soil fertility and mycorrhizal infection on pollen production and pollen grain size of *Cucurbita pepo* (Cucurbitaceae). *Plant Cell and Environment* 18:169-177.
37. Snapp S, **Koide RT**, Lynch J (1995) Exploitation of localized phosphorus-patches by common bean roots. *Plant and Soil* 177:211-218.
38. **Koide RT**, Lu X (1995) On the cause of offspring superiority conferred by maternal mycorrhizal infection. *New Phytologist* 131:435-441.
39. Heppell KB, Shumway DL, **Koide RT** (1998) The effect of mycorrhizal infection of *Abutilon theophrasti* on competitiveness of offspring. *Functional Ecology* 12:171-175.

40. Boswell EP, **Koide RT**, Shumway DL, Addy HD (1998). Winter wheat cover cropping, VA mycorrhizal fungi and maize growth and yield. *Agriculture Ecosystems and Environment* 67:55-65.
41. Addy HD, Boswell EP, **Koide RT** (1998) Low temperature acclimation and freezing resistance of extraradical VA mycorrhizal hyphae. *Mycological Research* 102:582-586.
42. Dickie IA, **Koide RT**, Stevens CM (1998) Tissue density and growth response of ectomycorrhizal fungi to nitrogen source and concentration. *Mycorrhiza* 8:145-148.
43. **Koide RT**, Suomi L, Stevens CM, McCormick L (1998) Interactions between needles of *Pinus resinosa* (Ait.) and ectomycorrhizal fungi. *New Phytologist* 140:539-547.
44. Bryla DR, **Koide RT** (1998) Mycorrhizal response of two tomato genotypes relates to their ability to acquire and utilize phosphorus. *Annals of Botany* 82:849-857.
45. **Koide RT**, Dickie IA, Goff MD (1999) Phosphorus deficiency, plant growth and the phosphorus efficiency index. *Functional Ecology* 13: 733-736.
46. **Koide RT**, Landherr LL, Besmer YL, Detweiler JM, Holcomb EJ (1999) Strategies for mycorrhizal inoculation of six annual bedding plant species. *HortScience* 37: 1217-1220.
47. Besmer YL, **Koide RT** (1999) Effect of mycorrhizal colonization and phosphorus on ethylene production of snapdragon flowers. *Mycorrhiza* 9: 161-166.
48. Kabir Z, **Koide RT** (1999) The effect of dandelion or a cover crop on mycorrhiza inoculum potential, soil aggregation and yield of maize. *Agriculture, Ecosystems and Environment* 78: 167-174.
49. **Koide RT**, Shumway DL (2000) On variation in forest floor thickness across four red pine plantations in Pennsylvania, USA. *Plant and Soil* 219:57-69.
50. **Koide RT**, Shumway DL, Stevens CM (2000) Soluble carbohydrates of red pine (*Pinus resinosa* Ait.) mycorrhizas and mycorrhizal fungi. *Mycological Research* 104:834-840.
51. **Koide RT**, Goff MD, Dickie IA (2000) Component growth efficiencies of mycorrhizal and nonmycorrhizal plants. *New Phytologist* 148:163-168.
52. **Koide RT** and Kabir Z. (2000) Extraradical hyphae of the mycorrhizal fungus *Glomus intraradices* can hydrolyze organic phosphate. *New Phytologist* 148:511-517.
53. Nakano A, Takahashi K, **Koide RT**, Kimura M (2001) Determination of the nitrogen source for arbuscular mycorrhizal fungi by ¹⁵N application to soil and plants. *Mycorrhiza* 10:267-273.
54. **Koide RT**, Kabir Z (2001) Nutrient economy of red pine is affected by interactions between *Pisolithus tinctorius* and other forest floor microbes. *New Phytologist* 150:179-188.
55. Dickie IA, **Koide RT**, Fayish AC (2001) Vesicular-arbuscular mycorrhizal infection of *Quercus rubra* seedlings. *New Phytologist* 151:257-264.
56. Poulton JL, **Koide RT**, Stephenson AG. (2001) Effects of mycorrhizal infection and soil phosphorus availability on *in vitro* and *in vivo* pollen performance in *Lycopersicon esculentum* (Solanaceae). *American J Botany* 88:1786-1793.
57. Poulton JL, **Koide RT**, Stephenson AG. (2001) Effects of mycorrhizal infection, soil phosphorus availability and fruit production on the male function in two cultivars of *Lycopersicon esculentum* Mill. *Plant Cell and Environment* 24:841-849.
58. Dickie IA, **Koide RT**, Steiner K. (2002) Influences of established trees on mycorrhizas, nutrition, and growth of *Quercus rubra* seedlings. *Ecological Monographs* 72:505-521.
59. Kabir Z, **Koide RT**. (2002) Effect of autumn and winter mycorrhizal cover crops on soil properties, nutrient uptake and yield of maize in Pennsylvania, USA. *Plant and Soil* 238:205-215.

60. **Koide RT**, Dickie IA. (2002) Kit-based, low-toxicity method for extracting and purifying fungal DNA from ectomycorrhizal roots. *BioTechniques* 32:52-56.
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Research articles submitted or in progress

- Clark E, **Koide RT**. Some methodological considerations in research on endophytic fungi. **Koide RT**, Ricks KD. Reciprocal evolutionary histories of plants, insects and microbes: a broader framework for plant-insect coevolution.
- Ricks KD, Rader RB, **Koide RT**. Ecological specialization and the concept of non-random association.
- Xu C, Zhang K, Xiao J, Zhu C, Zhu W, Zhang N, Yu F, Li S, Zhu C, Tu Q, Chen X, Zhu J, Hu S, **Koide RT**, Firestone MK, Cheng L. Large losses of ammonium-nitrogen from a rice ecosystem under elevated CO₂. Submitted to Nature Communications, March 2 2020.
- Ewing P, **Koide R**, Williams A, Jordan N. A habitat-centric paradigm to improve microbial husbandry and the productivity of agricultural soils. Submitted to Journal of Applied Ecology, June 2019
- Ricks KD, Perez SB, **Koide RT**. Deterministic factors and stochasticity in the assembly of foliar endophytic fungal communities.
- Zhang Q, Koide RT, Liu J, Li Z, Yang H, Sun Q. Root competition increases arbuscular mycorrhizal fungal species richness. Submitted to Journal of Ecology, 2 March 2020.
- Nettles R, Ricks KD, **Koide RT**. The dynamics of antibiotic-induced dysbiosis in interacting bacterial and fungal communities of the mouse colon. Submitted to Microbial Ecology, 12 March 2020.

Invited Chapters and Articles

1. **Koide RT**, Robichaux R, Morse S, Smith C (1989) Plant water status, hydraulic resistance and capacitance. In: RW Pearcy, JR Ehleringer, HA Mooney and P Rundel (eds), Physiological Plant Ecology: Field Methods and Instrumentation, pp 161-184. Chapman and Hall.
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Non-refereed publications

1. Williams A, Ewing P, Jordan N, Davis A, Grandy A, Smith R, Kane D, Snapp S, **Koide R**, Mortensen D, *et al.* 2016. Enhanced control of soil nitrogen cycling through soil functional zone management. *Crops and Soils Magazine*. DOI: 10.2134/cs2016-49-0602
2. **Koide R** (1994) Mycorrhizal fungi. *Michigan Vegetable Growers News*.

Book Reviews

1. *Mycorrhizal Symbiosis*, 2nd Edition, by SE Smith and DJ Read, Academic Press. *Trends in Plant Science* 2:282 (1997).
2. *Management of Mycorrhizas in Agriculture, Horticulture and Forestry*, Eds. AD Robson, LK Abbott, N Malajczuk. *New Phytologist* 129:165 (1995)
3. *Symbiosis. An Introduction to Biological Associations*, by V Ahmadjian and S Paracer. *The Bryologist* 89:318-319 (1987).
4. *The Biology of Symbiosis*, by DC Smith and AE Douglas. *The Bryologist* 90:197 (1987).

SUPERVISION OF RESEARCH (students and postdoctorals)

Postdoctoral researchers

Lei Cheng, 4/12 – 9/13, Professor, Zhejiang University, China
 Andrea Nord, 9/11 – 7/13, Assistant Professor Greenville College
 Binh Nguyen, 4/11 – 8/13, Lecturer, Industrial University of Ho Chi Minh City
 Glenna Malcolm, 1/08 – 8/08, Lecturer, Biology, Penn State University
 Juan Carlos Lopez Gutierrez, 7/04 – 6/07, Laboratory Coordinator, Acadia University, Canada
 Ylva Lekberg, 7/04 – 3/05, scientist, MPG Ranch, Montana and Adjunct Asst. Professor, College Forestry and Conservation, University of Montana
 Bing Xu, 9/01 – 6/04, postdoc at Cedars Sinai Medical Center, Los Angeles
 Ian Dickie, 9/00 - 6/01, Professor, Lincoln University, New Zealand
 Lena Jonsson, 2/00 – 12/03

Zahangir Kabir, retired Research Professor, Dept. Land Air and Water Resources, University of California, Davis

Heather Addy, 9/95 - 12/96, Teaching Professor, Dept. Biological Sciences, University of Calgary

Julie Whitbeck, 1993-1995, Ecologist with National Park Service, Greater New Orleans Area

Sieglinde Snapp, 1992-1993 Professor, Michigan State Univ., Plant and Soil Science

Durland Shumway, 1991-1996, Professor, Penn State Univ., Department of Statistics

Ian Sanders, 1991-1992, Professor, University of Lausanne, Institute of Ecology

Mingguang Li, 1991, retired Professor, Sun Yatsen University, Biology Department

Graduate students

Emily Ryan Davis, MS (2019-) Biology, Brigham Young University

Emily Weatherhead, MS (2019-) Biology, Brigham Young University

Kevin Ricks, MS (2016 - 2018) Biology, Brigham Young University, currently PhD student Univ. Illinois

Rachel Nettles, MS (2015-2017) Biology, Brigham Young University

Na Yin, PhD (2014 - 2019) Biology, Brigham Young University

Weile Chen, PhD (2012 – 2016), Ecology (Penn State University), currently postdoc Univ. Illinois.

Kristin Haider, MS (2010-2014), Ecology (Penn State University), currently lab tech., USDA/ARS, Vegetable Crops Unit, University of Wisconsin, Madison.

Krittika Petprakob, PhD (2008-2012, withdrawn), Ecology (Penn State University)

Christopher Fernandez, PhD (2008-2014), Ecology (Penn State University), currently postdoc Univ. Minnesota.

Glenna Malcom, (2003-2008), PhD 2008, Ecology, currently Lecturer, Biology, Penn State University

Jori Murchie, PhD (2003-2008), Plant Physiology, editor for ProEditJapan (Scientific Editing)

Ylva Lekberg, PhD 2004, Ecology, Research Scientist at MPG Ranch, Montana.

Ian Dickie, PhD 2000, Ecology, Professor Lincoln University (New Zealand)

Melissa Goff, MS 2000, Horticulture, Agricultural Research Technician, USDA-ARS Pasture Research Lab

Tiehang Wu, PhD 2002, Horticulture, Assoc. Professor Georgia Southern University

Laura Suomi, MS 1998, Ecology, District Manager Oxford County Soil and Water Conservation

Jennifer Poulton, PhD 2000, Biology, Professor, Graceland U (Iowa), Biology

Edward Boswell, MS 1996, Biology, currently PhD student in soil science, U. Wisconsin

Karen Baker, MS 1995, Plant Physiology

Margot Stanley Bram, MS 1992, Biology

Xiaohong Lu, PhD 1993, Plant Physiology

Lynn Staszak, MS 1991, Biology

Roger Paul Schreiner, PhD 1992, Plant Physiology, Scientist, USDA ARS Horticultural Crops Research, Corvallis, OR

James Lewis, MS 1989, Ecology, Professor, Fordham U, Biological Sciences

David Bryla, MS 1989, Ecology, Scientist, USDA, ARS, Corvallis, OR

Other dissertation committees:

Tak-Cheung Lau, PhD, Biology (1993)

David Cox, PhD, Entomology (1992)

James Loughran, PhD, Agronomy (withdrawn)
Wilella Burgess, MS, Ecology (1987)
James Strauss, MS, Biology (1989)
Edward Dix, MS, Botany (1990)
Durland Shumway, PhD, Forestry (1991)
Charles Barden, PhD, Forestry (1989)
Michelle Briggs, PhD, Entomology (1988)
Mark Kubiske, MS, PhD, Forestry (1993)
Greg Nowacki, PhD, Forestry (1993)
Colin Nicols-Orians, PhD, Entomology (1990)
Philip Hammer, PhD, Plant Physiology (1993)
Kerry Campbell, PhD, Agronomy (withdrawn)
Eva Katherine Rauser Gounaris, MS, Biology (1990)
Brian Kloeppe, MS, Forestry (1991)
Simon McQueen-Mason, PhD, Plant Physiology (1993)
Scott Subler, PhD, Ecology (1993)
Brian Joyce, MS, Forestry (1992)
David Orwig, PhD, Forestry (1993)
Marilyn L. Schroeder, PhD, Horticulture (withdrawn)
Callie Pickens, PhD, Ecology (1995)
Joseph A. Ciardi, PhD, Horticulture (1996)
George Jing, PhD, Plant Pathology (1996)
Mark W. Goodson, PhD, Agronomy (withdrawn)
Irene Mbugua, PhD, Horticulture (1997)
Kai L. Nielsen, PhD, Horticulture (1997)
Elvira Keller, PhD, Plant Physiology (1996)
Sunyo Jung, MS, Plant Physiology (1994)
Wei Qiang Yang, MS, Horticulture (1996)
Neal Barto, PhD, Horticulture (withdrawn)
Laura Phillips, MS, Forestry (1997)
Michael Demchik, PhD, Forestry (1998)
Michael Dockry, MS, Forestry (1996)
Carlos Mendez, MS, Horticulture (1997)
Andrea Nord, MS, Ecology (1998)
Eric Nord, MS, Ecology (1998)
Campbell Plowden, PhD, Ecology (2001)
Jeff Gerwing, PhD, Ecology (2002)
Bryan Black, PhD, Forestry (2003)
John Freytag, PhD, Biology (2003)
Lisa Kelso, PhD, Forestry (2003)
Jessica Smith, MS, Forestry (2002)
Leslie Long, MA, Plant Pathology (2004)
Taryn Bauerle, PhD, Horticulture (2007)
Zaneta Hough, MS, Ecology (2006)
Jenny Edwards, MS, Ecology (2005)
Ann Widrig, MS, Horticulture (2005)
Magalhaes Miguel, MS, Horticulture (2004)
Magalhaes Miguel, PhD, Horticulture (2011)

Patrick Ryan, MS, Ecology (2005)
Genevieve (Gennie) A. Romanello, M.S., Ecology (2009)
Robert Duncan Cameron, PhD, Horticulture (withdrawn)
Kevin Mueller, PhD, Ecology (2010)
Benjamin Hoover, PhD, Horticulture (2011)
Rachel Melnick, PhD, Plant Pathology (2010)
Marshall D. McDaniel, PhD, Crop and Soil Sciences (2011)
Carla Rosenfeld, PhD, Biogeochemistry (2013)
Claire Keene, PhD, Agronomy (anticipated 2015)
Anna Testen, MS, Plant Pathology (2012)
Tom Adams, PhD, Ecology (2014)
Weile Chen, PhD, Ecology (2016)
Lesley Atwood, PhD, Earth and Environmental Sciences, University of New Hampshire (2017)
Patrick Ewing, PhD, Agronomy & Plant Genetics, University of Minnesota (anticipated 2018)

Rory O'Connor, MS, Biology, BYU (2014)
Lafe Connor, PhD, Biology, BYU (2015)
Douglas Fairbanks, MS, Biology, BYU (2017)
Rachel Keuler, PhD, Biology, BYU
Daniel William Thompson, PhD, MMBIO, BYU
Holley Lund, MS, PWS, BYU

International Dissertation Examiner for:

Megan Ryan, PhD, Botany (Australian National University, 1998)
Evelina Facelli, PhD, Soil Science (University of Adelaide, 1998)
Mayra Gavito, PhD, Land Resource Science (University of Guelph, 1996)
Patrick O'Connor, PhD, Soil Science (University of Adelaide, 2001)
Gafur Sutarman, PhD, Soil Science and Plant Nutrition (University of Western Australia, 2002)
Renske Landeweert, PhD, Soil Science (Wageningen University, 2003)
Huiying Li, PhD, Earth and Environmental Sciences (University of Adelaide, 2005)
Edith Hammer, PhD, Microbial Ecology (Lund University, 2010)
Sheetal Maruti Rhatwal, PhD, Botany (University of Pune, India, 2011)
N Md Jaafar, PhD, Earth and Environment (University of Western Australia, 2014)
Salmabi Assainar, PhD, School of Agriculture and Environment (University of Western Australia, 2020)

International Dissertation Committee Member for:

Fanta Regassa Baba, PhD, Natural Resources Management, Addis Ababa University, Ethiopia (2017 -)

Undergraduate student researchers

BYU:

Meg Licht, BS 2014 (Biology), currently PhD student Utah State University
Monica Boyer, BS 2014 (Food Science)
David Castellanos, BS 2014 (Biology) currently MS student Speech Path., University of Utah
Emily Ryan Davis, BS 2013 (Biology)

Rachel Nettles, BS 2014 (Environmental Science), MS BYU 2017, employed Univ. Pittsburgh
John Watkins, BS 2015 (Conservation Biology), currently MS student Environmental Sci. &
Public Affairs, Indiana Univ.

Ismaiel Szink, BS 2015 (Biology), currently PhD student Penn State Univ.

Kevin Ricks, BS 2016 (Environmental Science), currently PhD student, Univ. Illinois

Devin Shirley, BS 2015 (Biology), completed MS, Univ. Notre Dame

Eliza Clark, BS 2016 (Biology), currently PhD student, Colorado State Univ.

Emily Aranda, BS 2016 (Biology)

Kate Harmer, BS 2020 (Biology)

Sydney Amidon, BS 2017 (Biology)

Tylor Bayer, BS 2018 (Civil Engineering), will be MS student, Engineering, BYU

Adrienne Ducharme, BS 2018 (Biodiversity and Conservation)

Holley Lund, BS 2018 (Plant and Wildlife Sciences)

Jakob Garlick, BS 2019 (Biological Science Education)

Spencer Klatt, BS 2022 (Biology)

Katherine Jensen, BS 2022 (Biodiversity and Conservation)

Noah Boekweg, BS 2022 (Biology)

Owen Carter, BS 2023 (Biology)

Augustine Tambe, BS 2023 (Biology)

Penn State:

Jim Lewis, BS 1989 (Biology)

Brent Haynes, BS 1990 (Biology)

Jonathan Riches, BS 1991 (Biology)

Carla Picardo, BA 1994, Harvard College

Stephen Mabon, BS 1992 (Biology)

Barbara Prah, BS 1993 (Biology)

Edward Boswell, BS 1994 (Biology)

Michael O'Connell, BS 1996 (Biology)

Tara Feinberg, BS 1998, Wellesley College

Jamie Detweiler, BS 1999 (Biology)

Aaron Fayish, BS 2003 (Agricultural Engineering)

Erin Wakefield, BS 2002 (Biology)

Tara Chrzanowski, BS 2007 (Ecotoxicology)

Franz Lichtner, BS 2009 (Biology)

Carrie Knoop, BS 2007 (Horticulture)

Kyle Ashby, BS 2008 (Biology)

Kemuel Polydore, BS 2012 (Biology)

Jeffrey Seward, BS 2014 (Biology)

DEPARTMENT, COLLEGE AND UNIVERSITY SERVICE (Brigham Young University)

Member, Biology Vision Committee (2016 -)

Member, Biology Curriculum Assessment Committee (2012 - 2016)

Member, Biology Committee for Student Outreach (2013 - 2016)

Chair, Biology Activities Committee (2013 - 2018)

Reviewer ORCA grant proposals (2015, 2016)

DEPARTMENT, COLLEGE AND UNIVERSITY SERVICE (Penn State University)

Graduate Program in Ecology

Chair, Curriculum Committee (2008 - 2012)
Chair, Candidacy Exam Committee (2003-2008)
Candidacy Committee (2002-2003)
Admissions Committee (1987-1992)

Horticulture Department

Chairman, Promotion and Tenure Committee (2000-2001)
Promotion and Tenure Committee (1995-2001, 2008-2012)
Advisory Committee to the Head (2008- 2012)
Search Committees for Head (1995-1996, 1996-1997)
Search Committee for Pomologist (1994)
Curriculum Committee (2000- 2012)
Graduate Student Admissions Committee (1992-2001, 2011-2012)
Student Recruitment Committee (2006- 2012)
Exploratory Committee for Plant Physiologist (1999)
Growth Chamber Committee (1992-1995, 1999-2003)
Strategic Planning Committee (1998-1999)
Awards Committee (1994-1995)
Graduate Student Seminar (1992-1995)
Social Committee (1994-1995)

College of Agricultural Sciences

Advisory Committee to the Dean (1995-1998)
AGECO Advisory Committee (2006 - 2012)
College Strategic Planning Committee (1995-1996)
Landscape Ecologist Search Committee (2009)
Global Ecologist Search Committee (2010)
Integrated Crop Management Committee (1990-1991)

Graduate Program in Plant Biology

Admissions Committee (1995-1997)
Candidacy Committee (1989-1990, 1997-1998)

Biology Department

Eberly Chair in Biology Search Committee (1987)
Physiological Ecologist Search Committee (1991-1992)
Plant Developmental Biologist Search Committee (1989)
Advisory Committee (1989-1991)
Student Awards Committee (1991-1992)
Committee for Fundraising for Biology Laboratory Courses (1991-1992)
Strategic Planning Committee (1989-1990)
Editor of Booklet: Graduate Study in Biology, Penn State (1987)
Greenhouse/Herbarium Committee Chairman (1987-1989)
Seminar Series Committee Chairman (1987-1988)
Space Committee (1988-1989)

Hammond, Hill and Popp Scholarship Awards Committee Chairman (1988-1990, 1991-1992)
 Plant Molecular Biologist Search Committee (1990-1991)
 Faculty Awards Committee Chairman (1991-1992)

College of Science

College of Science Research Initiation Grant Selection Committee (1990-1992)

PROFESSIONAL SERVICES

Board of Advisors to the Editors, New Phytologist April 2002 - present
 Panel Member, NSF, Ecosystem Studies, 2013
 Ad hoc reviewer for various journals including American Naturalist, Annals of Botany, Annals of Forest Science, Biotropica, BioEnergy Research, Canadian J. Botany (Botany), Canadian J. Forest Research, Ecography, Ecology, Ecology Letters, Ecological Monographs, Evolution, Experimental Mycology, Functional Ecology, Fungal Ecology, International Journal of Plant Sciences, JASHS, J. Applied Microbiology, J. Ecology, J. Plant Physiology, Microbial Ecology, Mycological Research, Mycorrhiza, Oecologia, Plant Ecology and Diversity, Plant Physiology, Plant and Soil, Planta, PLoS ONE, Physiologia Plantarum, Soil Biology and Biochemistry and others
 Panel Member, NSF, Ecosystem Studies, 2003 - 2007
 Panel Member, USDA Soils and Soil Biology, NRI Grants Program, April 2003
 Declined invitation for panel membership, USDA NRI Managed Ecosystems, March 2003
 Declined invitation for panel membership, USDA NRI Soils and Soil Biology, April 2001
 Panel Member, USDA Soils and Soil Biology, NRI Grants Program, April 1998
 Ad hoc reviewer for various USDA competitive grants programs
 Ad hoc reviewer for various NSF competitive grants programs
 Ad hoc reviewer for NSERC (Canada)
 Ad hoc reviewer for The Israel Science Foundation
 Ad hoc reviewer for National Environment Research Council (UK)
 Ad hoc reviewer for American Floral Endowment
 Ad hoc reviewer for Research Foundation – Flanders (FWO)

COURSES OFFERED (Brigham Young University)

Biological Principles (BIO 100)
 Biological Diversity of Plants (BIO 220B)
 Plant Ecology (BIO 455)
 Symbiosis (BIO 5xx)

COURSES OFFERED (Penn State University)

Plant Ecology (HORT 445) 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2006, 2007, 2008, 2009, 2010, 2011
 Plants in the Human Context (HORT 150), 2008, 2009, 2010, 2011, 2012
 Plant Water Relations (HORT 440W) 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2007
 Plant Water Relations (BIOL 444) 1988, 1989, 1991
 Physiological Ecology (BIOL 446/544) 1986, 1988, 1990, 1992
 Physiology of Mycorrhizal Plants (BIOL 597b/PLPHY 597b) 1987
 Introductory Biology (BIOL 102) 1988, 1989, 1990, 1991, 1992
 Classical Ecology (ECLGY 497a), 2007

KOIDE STUDENT AWARDS

BYU:

Undergrads receiving ORCA awards: Monica Boyer, John Watkins

Penn State:

Roger Paul Schreiner received the Popp Award in botanical sciences from the Department of Biology.

Ian Dickie placed 1st in the graduate division (biological sciences) in the 2000 College of Agricultural Sciences Research Exhibition. Ian also receive the Gerald T. Gentry Award for Excellence in Graduate Research (Awarded by Gamma Sigma Delta and the College of Agricultural Sciences). He received the Horton Award in Ecology in April 2000 and the outstanding teaching assistant award from the LSC in 2000.

Ylva Besmer received a PSU Alumni Association Dissertation Award in 2004.

Glenna Malcolm received best student Oral Presentation Award at the Midwest Ecology and Evolution Conference (Kent, Ohio) in 2007.

Chris Fernandez received a Sloan Fellowship in 2010. Chris also received the second place award for oral presentations by a graduate student at the 2013 Soil Ecology Society Conference at Rutgers University.

Weile Chen received a PSU Alumni Association Dissertation Award in 2017.