

Department of Biology  
William Paterson University  
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1996 – 2002	<b>University of Maryland</b> , College Park, Maryland Ph.D., Plant biology
1991 – 1995	<b>Moravian College</b> , Bethlehem, Pennsylvania B.S., Biology

09 /14 – present	<b>William Paterson University</b> , Wayne, New Jersey Professor, Biology
09 /10 – 08/14	<b>William Paterson University</b> , Wayne, New Jersey Associate Professor, Biology
09/04 – 08/09	<b>William Paterson University</b> , Wayne, New Jersey Assistant Professor, Biology
02/02 – 08/04	<b>Utah State University</b> , Logan, Utah Postdoctoral Research Fellow, Ecology Center
08/96 – 01/02	<b>University of Maryland</b> , College Park, Maryland Teaching and Research Assistant, Plant Biology

Slaymaker, DH, **MS Peek**, J Wresilo, DC Zeltner, YF Saleh (2015) Genetic structure of native and restored populations of American beachgrass (*Ammophila breviligulata* Fern.) along the New Jersey coast. *Journal of Coastal Research*, 31:1334-1343.

Ryel, RJ, AJ Leffler, CY Ivans, **MS Peek**, MM Caldwell (2010) Functional differences in water-use patterns of contrasting life forms in Great Basin steppelands. *Vadose Zone Journal* 9:1-13.

**Peek, MS**, IN Forseth (2009) Positive effects of soil nitrogen pulses on individuals can have negative consequences for population growth during drought in an herbaceous desert perennial. *Journal of Ecology*, 97:440-449.

Hooker, TD, JM Stark, U Norton, AJ Leffler, **MS Peek**, R Ryel (2008) Distribution of ecosystem C and N within contrasting vegetation types in a semiarid rangeland in the Great Basin, USA. *Biogeochemistry*, 90: 291-308.

Ryel, RJ, CY Ivans, **MS Peek**, AJ Leffler (2008) Functional differences in soil water

- pools: a new perspective on plant water use in water-limited ecosystems. *Progress in Botany*, 69:397-422.
- Leffler, AJ, **MS Peek**, RJ Ryel, L Hipps, MM Caldwell (2007) Contribution of Mormon cricket outbreaks to ecosystem carbon flux. *Western North American Naturalist*, 67: 109-119.
- Peek, MS** (2006) Explaining variation in fine root life span. *Progress in Botany*, 68:382-398.
- Peek, MS**, AJ Leffler, L Hipps, S Ivans, RJ Ryel, MM Caldwell (2006) Significant root turnover and relocation in the soil profile in response to seasonal soil moisture variation in a natural stand of Utah juniper (*Juniperus osteosperma*). *Tree Physiology*, 26:1469-1476.
- Peek, MS** and Forseth IN (2005) Nondestructive estimation of lateral root spread in an aridland perennial. *Plant and Soil*, 273:211-217.
- Peek, MS**, AJ Leffler, CY Ivans, RJ Ryel, MM Caldwell (2005) Fine root distribution and persistence under field conditions of three co-occurring Great Basin species of different life form. *New Phytologist*, 165:171-180.
- Leffler, AJ, **MS Peek**, RJ Ryel, CY Ivans, MM Caldwell (2005) Hydraulic redistribution through the root systems of senesced plants. *Ecology*, 86:633-642.
- Ryel, RJ, AJ Leffler, **MS Peek**, CY Ivans, MM Caldwell (2004) Water conservation in *Artemisia tridentata* through redistribution of precipitation. *Oecologia*, 141:335- 345.
- Peek, MS**, AJ McElrone and IN Forseth (2004) Gas exchange responses of a desert herbaceous perennial to variable sunlight in contrasting microsites. *Journal of Arid Environments*, 58:439-449.
- Peek, MS**, AJ Leffler, SD Flint and RJ Ryel (2003) How much variance is explained by ecologists? Additional perspectives. *Oecologia* 137:161-170.
- Peek, MS** and IN Forseth (2003) Microhabitat dependent responses to resource pulses in the aridland perennial, *Cryptantha flava*. *Journal of Ecology* 91:457-466.
- Sullivan, JH, DC Gitz, **MS Peek**, AJ McElrone (2003) Response of three eastern tree species to supplemental UV-B radiation: leaf chemistry and gas exchange. *Agricultural and Forest Meteorology*, 120:219-228.
- Peek, MS** and IN Forseth (2003) Enhancement of photosynthesis and growth of an aridland perennial in response to soil nitrogen pulses generated by mule deer. *Environmental and Experimental Botany* 49:169-180.
- Peek, MS**, E Russek-Cohen, DA Wait, and IN Forseth (2002) Physiological response curve analysis using nonlinear mixed models. *Oecologia* 132:175-180.

### **Grants, Honors and Awards:**

- |             |  |
|-------------|--|
| 2/10 - 9/13 | <b>National Oceanic and Atmospheric Administration (NOAA), New Jersey Sea Grant</b> , Assessing plant performance of 'Cape' American beachgrass, <i>Ammophila breviligulata</i> , against local beachgrass ecotypes, \$90,000. |
| 5/09        | <b>Center for Research, College of Science and Health, William Paterson University</b> , Long- and short-term tradeoffs in response to burial in the common dunegrass, <i>Ammophila breviligulata</i> , \$4960.                |
| 9/08        | <b>National Science Foundation (NSF) Undergraduate Research</b>  |

- Mentoring Preliminary Proposal**, Developing student research scientists through proactive recruitment, faculty mentor rotations and flexible coursework. Co-PI's Emmanuel Onaivi & Pradeep Patnaik. Not Funded.
- 5/08 **Center for Research, College of Science and Health, William Paterson University**, Long- and short-term tradeoffs in response to burial in the common dunegrass, *Ammophila brevigulata*, \$4960
- 3/07 **Center for Research, College of Science and Health, William Paterson University**, Mini-Grant purchase of a spot welder. Co-PI, Kevin Martus, Dept. Chemistry & Physics. \$1153.48
- 3/07 **Center for Research, College of Science and Health, William Paterson University**, Long- and short-term tradeoffs in response to burial in the common dunegrass, *Ammophila brevigulata*, \$4960
- 3/06 **Center for Research, College of Science and Health, William Paterson University**, Long- and short-term tradeoffs in response to burial in the common dunegrass, *Ammophila brevigulata*, \$4960
- 5/05 **New Jersey Marine Sciences Consortium**, program development funds, \$5,000.
- 3/05 **Center for Research, College of Science and Health, William Paterson University**, Long- and short-term tradeoffs in response to burial in the common dunegrass, *Ammophila brevigulata*, \$4960

#### **Professional Meeting Presentations:**

- 4/17 **Undergraduate Research Symposium, William Paterson University, Wayne, NJ**. Ian Drake. Detecting the abundance of the fungal endophyte, *Epichloe* in American Beachgrass.
- 4/17 **Undergraduate Research Symposium, William Paterson University, Wayne, NJ**. Andrew Pratt. Physiological differences among 3 NJ & Cape American Beachgrass.
- 4/17 **Undergraduate Research Symposium, William Paterson University, Wayne, NJ**. Sylvia Wasserman. Effect of competition on 'Cape' American Beachgrass and NJ harvested strains.
- 8/13 **New Jersey Department of Environmental Protection, Sandy Research Forum, Trenton, NJ**. Restoring Genetic Diversity post-Sandy.

- 04/13      **Mid-Atlantic Ecological Society of America, Dover, DE.** 2 posters  
Presented: Effects of drought stress on growth and physiology of *Ammophila breviligulata* strains. Jon Picariello\*, Nelson Araujo, Nick Margo & Michael S. Peek. New Jersey *Ammophila breviligulata* strains exhibit differential biomass allocation relative to 'Cape' Nelson Araujo\*, Paige Appleton, Jon Picariello, Sarah Flaherty, Frank Oliver & Michael S. Peek.\*Presenter
- 10/12      **Atlantic Estuarine Research Society, Chincoteague Island, VA.**  
Keynote Speaker. Diversity of American Beachgrass in New Jersey: Implications for Dune Restoration.  
**Two Posters Presented with Student Authors:**  
Effects of drought stress on growth and physiology of *Ammophila breviligulata* strains. Jon Picariello\*, Nelson Araujo, Nick Margo & Michael S. Peek. Native New Jersey *Ammophila Breviligulata* strains vary in photosynthetic traits. Nelson Araujo\*, Nick Margo & Michael S. Peek.  
\*Presenter
- 04/12      **Undergraduate Research Symposium at William Paterson University, Wayne, NJ.** Native New Jersey *Ammophila Breviligulata* strains vary in photosynthetic traits. Nelson Araujo\*, Nick Margo & Michael S. Peek. \*Presenter and 1<sup>st</sup> place winner.  
New Jersey *Ammophila breviligulata* strains exhibit differential growth relative to 'Cape' variety. Nicholas Margo\*, Nelson Araujo & Michael S. Peek. \*Presenter and 1<sup>st</sup> place winner.
- 4/09      **Undergraduate Research Symposium at William Paterson University, Wayne, NJ.** Effects of sand burial on the coastal dune grass *Ammophila breviligulata*. Hieke Droegmoeller & Michael S. Peek
- 4/08      **Undergraduate Research Symposium at William Paterson University, Wayne, NJ.** Effects of sand burial on the coastal dune grass *Ammophila breviligulata*. Seth Eberhardt, presenter (second place winner in Ecology/Behavior division)
- 4/08      **Ecological Society of America, Mid-Atlantic chapter, Wilkes-Barre, PA.** Effects of sand burial on the coastal dune grass *Ammophila breviligulata*. Seth Eberhardt, presenter
- 4/07      **Undergraduate Research Symposium at William Paterson University, Wayne, NJ.** Effects of sand burial on the coastal dune grass *Ammophila breviligulata*. Wendell Degannes,

presenter (second place winner in Ecology/Behavior division)

- 8/06            **Ecological Society of America**, Memphis, TN. Effects of sand burial on the coastal dune grass *Ammophila breviligulata*
- 4/06            **Ecological Society of America**, Mid-Atlantic chapter, Branchville, New Jersey. Effects of sand burial on the coastal dune grass *Ammophila breviligulata*

**Invited seminars:**

- 11/13            **Jamaica Bay Herbert Johnson Lecture Series, Gateway National Wildlife Refuge**. Diversity in Dunes.
- 07/13            **Jamaica Bay Summer Youth Internship Program, Gateway National Wildlife Refuge**. Restoring Primary Dunes in the Northeastern United States.
- 04/13            **Stockton State College**, Galloway, NJ. Diversity of American Beachgrass in NJ: Implications for Dune Restoration.
- 2/11             **Montclair State University**, Montclair, NJ.  
Predicting fine root lifespan within and across species.
- 4/08             **University of Pennsylvania**, Philadelphia, Pennsylvania.  
Predicting fine root lifespan within and across species.
- 10/07            **Long Island University, Brookville, New York**. Predicting fine Root lifespan within and across species.
- 09/06            **Rutgers University**, Newark, New Jersey. Resource pulses in aridlands: The good, the bad and the unknown.
- 01/06            **University of Pennsylvania**, Philadelphia, Pennsylvania. Resource pulses in aridlands: The good, the bad and the unknown.
- 12/05            **Fordham University**, Bronx, New York. Resource pulses in aridlands: The good, the bad and the unknown.
- 03/05            **Georgian Court University**, Lakewood, New Jersey. Resource pulses in aridlands: The good, the bad and the unknown.
- 03/04            **Swarthmore College**, Philadelphia, Pennsylvania. Resource pulses in aridlands: The good, the bad and the unknown.
- 02/04            **Queens University of Charlotte**, Charlotte, North Carolina.  
Adventures in plant water relations.
- 01/04            **Long Island University**, Brookville, New York. The importance of resource pulses in aridlands.

**Memberships in Professional Societies:**

- ◆ American Institute for Biological Sciences
- ◆ Ecological Society of America, Physiological Ecology Section & Mid-Atlantic Section
- ◆ Sigma Xi

## Professional Service:

Ongoing	<b>External Reviewer:</b> NSF-DEB & IBN programs
Ongoing	<b>Journal Referee:</b> <i>Ecological Monographs, Flora, Journal of Arid Environments, New Phytologist, Oecologia, Oikos, Plant Ecology, Plant and Soil, Plant Cell and Environment, Functional Plant Biology, Global Change Biology.</i>
4/14	<b>NSF-IBN proposal review panel member</b>
1/06 – 12/08	<b>Ecological Society of America's Grants and Fellowships Committee, chair.</b>
5/05 – 1/06	<b>Ecological Society of America's Grants and Fellowships Committee, member.</b>
12/06	<b>Port Norris Public School District</b> , Port Norris, New Jersey. Lecture to AVID (Advancement Via Individual Determination; <a href="http://www.avidonline.org">www.avidonline.org</a> ) 6 <sup>th</sup> & 7 <sup>th</sup> graders. Ph.D.'s and Plants.
12/04	<b>Millville Public School District</b> , Millville, New Jersey. Lecture to AVID (Advancement Via Individual Determination; <a href="http://www.avidonline.org">www.avidonline.org</a> ) 6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> & 9 <sup>th</sup> graders. Ph.D.'s and Plants.

## Academic Service:

<b>Departmental</b>	
2020-present	Chairperson
2013-2020	Graduate Coordinator, Biology & Biotechnology
2010-2020	Scheduling Committee
2006-present	Departmental Webmaster
2008-2015	Improving Student Success in Biology and Biotechnology selection committee
2014	Animal Physiologist Search Committee, co-chair
2012	Freshwater Biologist Search Committee, chair
2009-2012	Student Committee; Warner-Spivak Scholarship Committee
2006-2008	Departmental Seminar Coordinator
2008-2009	Undergraduate Curriculum Committee; Graduate Curriculum Committee; Independent Study Committee (Chairperson)
2007-2008	Undergraduate Curriculum Committee (Chairperson); Graduate Curriculum Committee; Independent Study Committee
2006-2007	Student Committee; Graduate Curriculum Committee; Technician Review Committee
2005-2006	Secretary; Technician Review Committee; Student Committee

**College of Science and Health**

2023-2024	College Curriculum Committee
2006-2018	College Webmaster
2014-2018	New Jersey Marine Sciences Consortium Board of Trustee, academic institution representative
2005-present	New Jersey Marine Sciences Consortium Representative
2008-2009	College Curriculum Committee

**University**

2024-present	University Core Curriculum – Quantitative Literacies Area C
2010-2024	University Core Curriculum – Scientific Perspective Area 3d
2018	University Promotion Committee
2011	Assigned Release Time Committee
2009-2010	Assessment Committee
2006-2008	AFT-Union Representative
Spring 2008	Search Committee for the Assistant Director for the Office of Sponsored Programs (Search Failed)
Summer 2008	Search Committee for the Assistant Director for the Office of Sponsored Programs

**Educational Development**

Fall 2022	What Works Conference – Peer supplemental instruction
Spring 2015	Case Studies in Teaching Workshop, Pradeep Patnaik, presenter
Fall 2008	Engaging Science, Advancing Learning: General Education, Majors, and the New Global Century. American Association of Colleges and Universities Conference, Providence, RI.
Spring 2006	Motivating GE Students with Instant Response Clickers
Summer 2005	Writing Across the Curriculum Workshop

**Students Trained**

1. Michael Pelosi
2. Olga Chomachova
3. Onnolee Jansen
4. Ross Manning
5. Michael Celuch
6. Wendell Degannes
7. Chad Socha
8. Avik Desai
9. Seth Eberhardt
10. Heike Droegmoeller

11. Dana Boschert
12. Vincent Alalay
13. John Scancarella
14. Nicholas Margo
15. Jon Picariello
16. Nelson Araujo
17. Sarah Flaherty
18. Frank Oliver
19. Paige Appleton
20. John Sferuzza
21. Sylvia Wasserman
22. Andrew Pratt
23. Ian Drake – MS thesis
24. Emir Shahin
25. Issac Lobo