

## **James P. Muir**

Regents Professor, Forage Ecology & Physiology  
Texas A&M AgriLife Research, Stephenville, Texas 76401USA  
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### **Education/Training**

1989 Ph.D. Agronomy, University of Florida, Gainesville Florida USA

- Certificate in African Studies
- Minor in Tropical Agriculture

1985 M.S. Agronomy, University of Florida, Gainesville Florida USA

1981 B.S. Biology (Ecology), Wheaton College, Wheaton Illinois USA

### **Positions and Employment**

1997-Present Assistant to Professor, Texas A&M University & Texas A&M AgriLife Research

2013-Present 25% academic appointment, Tarleton State University, Stephenville TX USA

1997 Winrock International country representative in Mozambique

Heifer Project International

1989-1997 Visiting agronomist, Instituto de Produção Animal, Moçambique

1987 Fulbright-Hays Fellow to Universidade Eduardo Mondlane, Moçambique

### **Languages**

English & Portuguese, native fluency

Spanish & French, conversant

### **Program Overview**

I teach graduate classes at Universidade Federal Rural de Pernambuco, Recife Brazil and Tarleton State University, Stephenville, TX 76401. I currently supervise 3 doctoral candidates and 2 MSc students at those two universities and at Texas A&M University.

My research program focuses on grassland ecology, mostly at the plant:animal interface, with special emphasis on legumes. Topics include grassland restoration, domestication of native germplasm, and the role of condensed tannins in ruminant systems.

### **Significant 5 Year (2014-2019) Accomplishments**

**RESEARCH:** I have led and participated in the following research teams: 1) Collecting, evaluating and releasing native herbaceous germplasm in Brazil and Texas; 2) Developing year-round forage/rangeland systems for goat production in north-central Texas; 3) Studying the impact of condensed tannins of herbaceous legume origin on ruminant nutrition, health and environment; 4) Use of native herbaceous germplasm for grassland and roadside revegetation.

**TEACHING:** Besides supervising 12 graduate research programs, I have taught an average of three graduate courses per year in Brazil and Tarleton State including: 1) Forage legume ecology; 2) Scientific writing; 3) Ruminant condensed tannin ecology; 4) Iberia Natural Resource Management study abroad; and 4) Plant:animal interactions.

**SERVICE:** I currently serve on the editorial board of Small Ruminant Research and Native Plants Journal.

### **Awards & Recognition:**

Elsevier Outstanding Reviewer, 2015

Fellow of the Crop Science Society of America, 2014

Texas A&M AgriLife Research Fellow, 2013

Regents Fellow Service Award, 2011

Texas A&M System Vice-chancellor's Award for Excellence in Research, 2010

Fellow of the American Society of Agronomy, 2009.

### **Research Summary 2010-2019**

#### **Grants**

24 funded exterior grants & contracts  
\$739,000 to program

### **Publications**

103 refereed journal articles

### **Technology Transfer**

8 Cultivar Releases

### **International Professional Experience**

International Papers: Canada, India, Australia, Poland, Brazil, Argentina, Mexico, China, South Africa, Spain, USA

### **Refereed journal publications since 2018** \*denotes mentored graduate student or corresponding author

- Skopec, M.M., R.P. Adams, and J.P. Muir. 2019. Terpenes may serve as feeding deterrents and foraging cues for mammalian herbivores. *Phytologia* (at press)
- Araújo, A.R., N.M Rodriguez, M.C.P. Rogério, I Borges, E.O.S. Saliba, S.A. Santos, R.C.F.F. Pompeu, F.E.P. Fernandes, J.P. Monteiro, and J.P. Muir. 2019. Nutritional evaluation and productivity of supplemented sheep grazing in semiarid rangeland of northeastern Brazil. *Tropical Animal Health and Production* 4:957-966.
- Muir, J.P., Ferreira Santos, M.V., M.Vieira da Cunha, J.C. Batista Dubeux, Jr., M. de Andrade Lira, Jr., R.T. de Almeida Souza, and T. Carvalho de Souza. 2019. Value of endemic legumes for livestock production on Caatinga rangelands. *Revista Brasileira de Ciências Agrárias* 14:e5648. [http://www.agraria.pro.br/ojs-2.4.6/index.php?journal=agraria&page=article&op=view&path%5B%5D=agraria\\_v14i2a5648&path%5B%5D=5180](http://www.agraria.pro.br/ojs-2.4.6/index.php?journal=agraria&page=article&op=view&path%5B%5D=agraria_v14i2a5648&path%5B%5D=5180)
- Tontini, J., Poli, C.H.E.C., J. P. Muir, V. da Silva Hampel, N. M. Fajardo, A. Afonso Martins, and A. Minho. 2019. Dispersal and concentration of sheep gastrointestinal nematode larvae on tropical pastures. *Small Ruminant Research* 174:62-68.
- Ribeiro Araújo, A., M.C. Pinheiro Rogério, and J.P. Muir, A. Azevedo Alves, A. M. de Vasconcelos, E. Reis Leite, and V.P. Guimarães. 2019. Economic feasibility of finishing lambs in two feeding systems using bovine cheese serum and elephant grass hay produced on-farm as dietary ingredients. *Small Ruminant Research* 170:131-136.
- Muir, J.P., W.D. Pitman, F.S. Smith, J. Reilley, and R.A. Shadow. 2018. Challenges to developing native legume seed supplies: the Texas experience as a case study. *Native Plants Journal* 19:224-238.
- \*Cooper, C.E., L.M.T. Aparecido, J.P. Muir, C.L.S. Morgan, J.L. Heilman, and G.W. Moore. 2018. Transpiration in recovering mixed loblolly pine and oak stands following wildfire in the Lost Pines region of Texas. *Ecohydrology* 219:1463-1479.
- \*Farthing, T., J.P. Muir, A.D. Falk, D. Murray. 2018. Efficacy of seven weed-removal techniques for invasive-Bermudagrass removal strategies in three Texas Ecoregions. *Ecological Restoration* 36:306-314.
- \*Cooper, C.E., J.G. Vogel, J.P. Muir, and G.W. Moore. 2018. Leaf functional trait responses to changes in water status differ among three oak (*Quercus*) species. *Plant Ecology* <https://doi.org/10.1007/s11258-018-0894-3>
- \*Pires Pereira, T., E. C. Modesto, D de Deus Nepomuceno, O.F. de Oliveira, R. S. Xavier de Freitas, J.P. Muir, J. C. Batista Dubeux Jr., and J. C. de Carvalho Almeida. 2018. Characterization and biological activity of condensed tannins from tropical forage legumes. *Pesq. Agropec. Bras.* 53:1070-1077.
- Xu, Yifeng, Jamie L. Foster, J.P. Muir, Byron L. Burson, Russell W. Jessup. 2018. Succinic acid production across candidate lignocellulosic biorefinery feedstocks. *American Journal of Plant Sciences* 9:2141-2153.
- Muir, J. P., T. H. Terrill, J. A. Mosjidis, J.-M. Luginbuhl, J.E. Miller, and J.M. Burke. 2018. Harvest regimen changes *Lespedeza cuneata* herbage condensed tannin, fiber and crude protein concentration. *Grassland Science* 64:137-144.
- \*White, J.A., J.P. Muir, and B.D. Lambert. 2018. Over-seeding cool season-annual legumes and grasses into dormant Tifton 85 Bermudagrass for forage and biomass. *Crop Science* 58:964-971.
- \*Cooper, C.E., J.P. Muir, J.G. Vogel and G.W. Moore. 2018. Tortoise or hare: will resprouting oaks or reseed pines dominate following severe wildfire? *Forest Ecology and Management* 408:54-66.