



2014 TSSRM President John Walker and Fellow Award Recipient Dr. Bob Lyons

Texas Section Society for Rangeland Management Fellow Award Dr. Bob Lyons

The Fellow award is given each year by the Section in recognition of exceptional service to the Section and its programs in advancing the art and science of range related resource management.

Dr. Lyons is currently a regular member of SRM and TSSRM and has been a member since 1988. Dr. Lyons received his both his bachelor's and master's degree in Animal Science from Rutgers University. In 1990 he completed a Ph.D. in Range Science at Texas A&M University. Currently, Dr. Lyons serves as the Associate Department Head of Ecosystem Science and Management and is a Professor and Extension Range Specialist at the Texas A&M Research and Extension Center in Uvalde.

Previous work experience includes:

- Visiting Assistant Professor, Department of Rangeland Ecology & Management, Texas A&M University, 1992-94
- Post-Doctoral Research Scientist, Department of Rangeland Ecology & Management, 1990-92

- Graduate Research Assistant, Department of Range Science, Texas A&M University, 1988-90
- County Extension Agent-Agriculture, Texas Agricultural Extension Service, 1977-86
- Assistant County Extension Agent-Agriculture, Texas Agricultural Extension Service, 1974-77
- Instructor, Animal Science & Agribusiness Technology, Blue Ridge Community College, 1973-74

Recent activities:

- Member Graduate Faculty at Texas A&M University and has served on 5 M.S graduate committees and 5 Ph.D. graduate committees at Texas A&M and Texas State University
- Established 128 applied brush herbicide research sites to develop solutions for invasive species and localized plant problems and secured nearly \$200,000 to support this work.
- Taught 4 different classes/field studies at Texas A&M and coached the Texas A&M University Range Management Examination Team to a 1st place victory in 1994 and 4th place in 1993 at the Society for Range Management Annual Meeting.
- Published 33 Extension Publications, 19 Industry Reports, 52 Proceedings, 19 Refereed Science Publications, 11 Refereed Abstracts, 19 AgriLife Research Publications, 4 books/book chapters, 15 Popular Articles, and developed 3 software programs with colleagues.
- Reviewed or managed 56 scholarly publications
- Presented 37 papers at professional meetings or workshops

Society for Range Management Activities:

Dr. Bob Lyons has been an active member of SRM since 1988, dedicating the vast majority of his professional development time to the organization. He was appointed as Associate Editor of the Rangeland Ecology and Management Journal from 2003-2005. Dr. Lyons served on the Texas Section SRM Board of Directors from 2005-2008.

His extensive list of committee work includes:

- TSSRM Awards Committee
Member, 2012
- Technical Session Program, TSSRM Annual Meeting
Co-Chairman 2006
- TSSRM Publications Awards Committee
Chairman 2004
Member 1999 & 2002
- Technical Session Program, TSSRM Annual Meeting
Co-Chairman 2004
- Annual Meeting Committee, TSSRM
Member, 2004
- Awards Committee, TSSRM
Member, 2004
- County Level Awards Committee, TSSRM
Member, 1998-2004

- Excellence in Range Management Committee, TSSRM
Member, 1998-99
- Activities Committee, TSSRM
Member, 1996-97
- Information and Education Committee, TSSRM
Chairman, 1996
Co-chairman, 1995

Awards and other recognition received:

- 2011 TSSRM Publication Award: Popular Article, B-5046, Pricklypear Biology and Management
- 2010 TSSRM Publication Award: Popular Article, B-622, Estimating Grazeable Acres. Texas AgriLife Extension Service.
- 2010 TSSRM Publication Award: Special Category, B-6208, Brush & Weeds of Texas Rangelands. Texas AgriLife Extension Service.
- 2009 Texas County Agricultural Agents Association District Level Specialist Distinguished Service Award
- 2009 TSSRM Publication Award: Popular Article, B-6224, Mesquite Ecology and Management. Texas AgriLife Extension Service
- 2009 TSSRM Publication Award: Special Category, B-6221, Grazing Land Stewardship - A Manual for Texas Landowners. Texas AgriLife Extension Service
- 2008 SRM Outstanding Achievement Award - Research
- 2006 TSSRM Outstanding Achievement Award
- 2002 TSSRM Publication Award: Popular Article
- 2001 Runner-up for Superior Service Specialist Award
- 1996 TSSRM Publication Award: Popular Article
- 1984 Lampasas County Chamber of Commerce Appreciation Award
- 1983 Achievement Award, Texas recipient, National Association of County Agricultural Agents

Major contribution to Rangeland Management or Section:

Dr. Lyons's major contributions to the Section are evident by not only the tenure of his membership, but the active participation he has shown on the Board of Directors, Editor of the SRM Science Journal, and long list of committee chair positions and committee memberships (see sections above).

Currently, Dr. Lyons serves as the Associate Department Head of the Ecosystem Science and Management Department. Under his short time as Associate Department Head, Dr. Lyons has mentored 2 young professional Assistant Professors, hired a new Assistant Professor, coordinated a shared position with West Texas A&M, filled a program specialist position, and worked closely with an interim Department Head to ensure all reporting and planning for the unit was accomplished. His willingness to take on this role has been on top of his normal work load as a Professor and Extension Range Specialist, supporting County Extension Agents in a large part of the Edwards Plateau, Central,

and South Texas. Dr. Lyons's commitment to the success of Extension's role in taking quality rangeland research to landowners and managers is quite evident.

In addition to serving as the Ecosystem Science and Management Extension Unit Leader, Dr. Lyons has contributed to the progression and knowledge of rangeland management through many different facets including:

NIRS/NutBal - Development of near infrared reflectance spectroscopy (NIRS) equations to estimate cattle forage quality (crude protein and digestibility) from fecal analysis was the major emphasis of Dr. Lyons's Ph.D. research. These equations were the basis for establishment of the Grazing Animal Nutrition (GAN) Lab at Texas A&M University. The GAN Lab has been used extensively by NRCS in working with ranchers and works with over 1400 clients in 48 states. His post-doctoral work involved determination of the effects of supplemental feed on NIRS estimates, sample handling procedures, and validation of NIRS equations. Development of NIRS fecal equations has been repeated by workers in Australia.

In addition to developing NIRS equations, Ph.D. and post-doctoral work included helping develop the Nutritional Balance Analyzer (NutBal) computer decision support software program, testing NutBal, and validating NIRS/NutBal system cattle performance estimates.

As Extension Range Specialist, Dr. Lyons has established 2- to 3-year studies on Texas ranches to validate NIRS/NutBal system performance estimates. In these studies, body condition scoring was added as a component of the system as a means of distinguishing between forage quality and availability problems. In addition, he helped develop the NutBal Pro Windows version, which incorporates the concept of protein partitioning into the model.

GPS/GIS Technology - Provided leadership in using GPS and GIS technology to illustrate cattle pasture-use patterns and determine barriers to use. For example, in one study, cattle use was excluded with rock cover greater than 30 percent. In another study, use was 4 times greater in areas within the same range sites where brush density and cover had been reduced than in untreated areas. This information has been used in Extension educational programs and used in an Extension publication and presented at two international, one national, and one statewide meeting. He also led GPS-collar activities for Lone Star Healthy Streams Project and Copano Bay Project.

Range Detect Series - This series of 7 Extension publications was developed to provide observational skills and promote their use as a tool in range animal nutrition and range resource management. Topics include a forage quality photo guide based on NIRS fecal analysis, interpreting grazing behavior, stocking rate considerations, effects of grazing and browsing on plants, grazing distribution, using body condition scores for range cattle nutritional management, and forage quality and quantity considerations. Work he conducted with GPS cattle collars illustrating grazing patterns and barriers to pasture use was used in the Extension grazing distribution publication.

Uvalde Center South Texas Native Plants Herbarium - Provided initial funding to establish a Web-based herbarium of South Texas native plants. Dr. Lyons also helped provide photographs and supporting information on plant value and problems.

Evaporation and Interception Water Loss from Juniper Communities - In conjunction with Dr. Keith Owens, Dr. Lyons helped obtain funding from 6 agencies and establish 10 study sites across the Edwards Aquifer Recharge Area to determine the partitioning of rainfall water loss associated with the presence of Ashe juniper as well as evapotranspiration losses. This study will provide a more complete understanding the effects of juniper on water budgets and serve as a source of information for both

Brush Management Applied Research - 128 applied research to investigate herbicidal individual plant treatments for localized plant problems including coyotillo, Texas mountain laurel, algerita, Texas persimmon, Queen's delight, huisache, twisted acacia, Eastern red cedar and Christ-thorn. This work has resulted in a huisache Brush Busters publication and management recommendations for Christ-thorn and willow baccharis.

Support of County Programs – Dr. Lyons's involvement with county Extension agents and their Program Building Committees has resulted in over 432 presentations to over 30,207 clientele at county and multi-county meetings, field days, and tours. This involvement has resulted in establishment of 128 result demonstrations and applied research projects.