

Shrub Research Consortium: Distinguished Service Award Honoring E. Durant McArthur

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In August 2002, at the Twelfth Wildland Shrub Symposium held in Laramie, WY, the Shrub Research Consortium presented its first Distinguished Service Award to Dr. E. Durant McArthur, Project Leader at the Shrub Sciences Laboratory in Provo, UT, for his phenomenal contributions to our understanding of shrubland ecology and biology. The award honors the long and productive career of this great shrubland scientist. We include this award paper in the proceedings to recognize some of the many contributions made by Durant over his more than 30 years of service with the USDA Forest Service as a Research Geneticist and Shrubland Ecologist.

Professional Background

Durant graduated from Dixie College in St. George, UT, with an A.S. degree in 1963. He received a B.S. degree in molecular and genetic biology (cum laude) in 1965, an M.S. degree in molecular and genetic biology with a minor in botany, and a Ph.D. degree in plant genetics in 1970 from the University of Utah. His doctoral work examined the cytogenetic and evolutionary development of aneuploid-tetraploid *Mimulus glabratus* (*Scrophulariaceae*). In 1971 he completed post-doctoral research on the cytogenetics of domesticated and wild Brassicaceae at the University of Leeds, England.

In 1972 Durant began his career with the USDA Forest Service, Intermountain Forest and Range Experiment Station, as a Research Geneticist assigned to the Great Basin Experimental Range in Ephraim, UT. In 1975 he was assigned to the Shrub Sciences Laboratory in Provo, UT, where, since 1983, he has served as Project Leader of the Shrubland Biology and Restoration Research Work Unit of what is now the Rocky Mountain Research Station. Durant has also served as an Adjunct Faculty member with the Department of Botany and Range Science at Brigham Young University since 1976.

In: Hild, Ann L.; Shaw, Nancy L.; Meyer, Susan E.; Booth, D. Terrance; McArthur, E. Durant, comps. 2004. Seed and soil dynamics in shrubland ecosystems: proceedings; 2002 August 12–16; Laramie, WY. Proceedings RMRS-P-31. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

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Formation of the Shrub Research Consortium

Dr. McArthur was instrumental in organizing the Shrub Research Consortium in 1983 and has served as Chair of the Consortium for the last 20 years. Under his guidance the Shrub Research Consortium has sponsored 12 symposia to date, providing a forum for shrubland researchers and managers from around the globe to present research, discuss management techniques, and ultimately advance our knowledge of shrubland ecosystems. Proceedings of these meetings have been and continue to be valuable references for shrubland ecologists and land managers, irrespective of their training or agency affiliation.

Professional Honors and Research Contributions

Durant's contributions have provided the foundation papers on genetic differentiation in Subgenus *Tridentatae* of *Artemisia* and numerous other shrub genera and species. His recent work on hybridization of subspecies of *Artemisia tridentata* amplifies our understanding of evolutionary change in shrub populations distributed across variable environmental gradients. His work involves the collaboration of scientists from around the globe. He has published more than 350 research papers including numerous journal articles and several book chapters. Durant has been a key compiler for the Wildland Shrub Symposia Proceedings (10 of 12 proceedings to date). His research expertise includes selection and breeding of shrubland species for rangeland rehabilitation, chromosome studies of *Artemisia* subgenus *Tridentatae*, adaptation, breeding system, and seed production of *Atriplex canescens*, habitat requirements of desert tortoise, and genetic structure of wildland restoration plantings. He has been directly involved in development of cultivar and germplasm releases in cooperation with the USDA-NRCS Plant Materials Program, the Utah Division of Wildlife Resources, and State Agricultural Experiment Stations. Species he has assisted with include "Rincon" fourwing saltbush, "Immigrant" forage kochia, "Hobble Creek" mountain big sagebrush and "Timp" Utah sweetvetch. His enthusiasm and guidance have united innovative research in ecology with genetic variation within wildland populations to form practical applications that have improved shrubland restoration efforts throughout the Intermountain West.

Durant has been honored with numerous awards over the years, including the USDA Forest Service Superior Scientist Award (1990) and Distinguished Scientist Award (1996), the USDA Forest Service Rocky Mountain Research Station Eminent Scientist Publication Award (2001), and the Society for Range Management Outstanding Achievement Award (1992). He has served as Chairman of the Shrub Research Consortium since 1983, President of the Utah Section of the Society for Range Management (1987), and President of the Intermountain Consortium for Arid Lands Research (1991 to present). In 2002, just prior to receiving the Shrub Research Consortium Award, Durant received the USDA Forest Service New Century of Service Award for the Rocky Mountain Research Station. We are pleased that the Shrub Research Consortium is led by such a nationally honored public servant and distinguished scientist.

Mentorship Legacy _____

Durant has been a guiding force and has served an inspirational role for many young scientists (fig. 1). His genuine encouragement of new scholars has been demonstrated repeatedly in meetings, on field excursions, and in his role on many M.S. and Ph.D. graduate committees. He is commonly involved in field trips for student groups (fig. 2) and visiting scientists (for which the authors are especially grateful). Durant has devoted endless hours to interagency

cooperation and is always willing to consult with managers on specific shrubland management issues.

In his role as research leader, he has directed the work of a long series of talented scientists at the Shrub Sciences Laboratory. His model scientific abilities and genuine love for people has allowed Durant to serve as an inspirational and energetic leader of some of the premier shrubland researchers in the world.

Personal Accomplishments _____

Durant married Virginia in December 20, 1963, and became the proud father of two sons, Ted and Curt, and two daughters, Monica and Denise. He is now a proud grandfather of 11 grandchildren (thus far). He has remained active in many community groups and activities in Provo.

Conclusion _____

The Shrub Research Consortium is proud to have the association and leadership of such a well-respected leader and well-recognized scientific mind as that of Dr. E. Durant McArthur. It is with great pride that we presented Durant with the first Shrub Research Consortium Distinguished Service Award in gratitude for his tireless efforts in promoting the recognition and understanding of global shrubland ecosystems.

SHRUB RESEARCH CONSORTIUM

Distinguished Service Award

Presented to

E. DURANT MCARTHUR

For his sustained leadership of the Shrub Research Consortium, his exemplary research career, and his dedication to enhancing our understanding of the biology and management of shrublands in North America and around the globe.

University of Wyoming
Laramie, Wyoming

August 13, 2002



Figure 1—USDA Forest Service Intermountain Forest and Range Experiment Station personnel gathered at the Desert Range Experiment Station on the occasion of a range science retreat, June 8, 1983. Front row (left to right): Mike Stanley, Susan Koniak, Bruce Welch, Renee O'Brien, Ralph Holmgren, John Kinney. Row 2: Jeanne Chambers, Dale Bartos, Walt Mueggler, Warren Clary. Row 3: Bob Ferguson, Fred Wagstaff, Sherel Goodrich, Duane Lloyd. Row 4: Art Tiedemann, Durant McArthur, Keith Evans, Roy Harniss, Rich Everett.

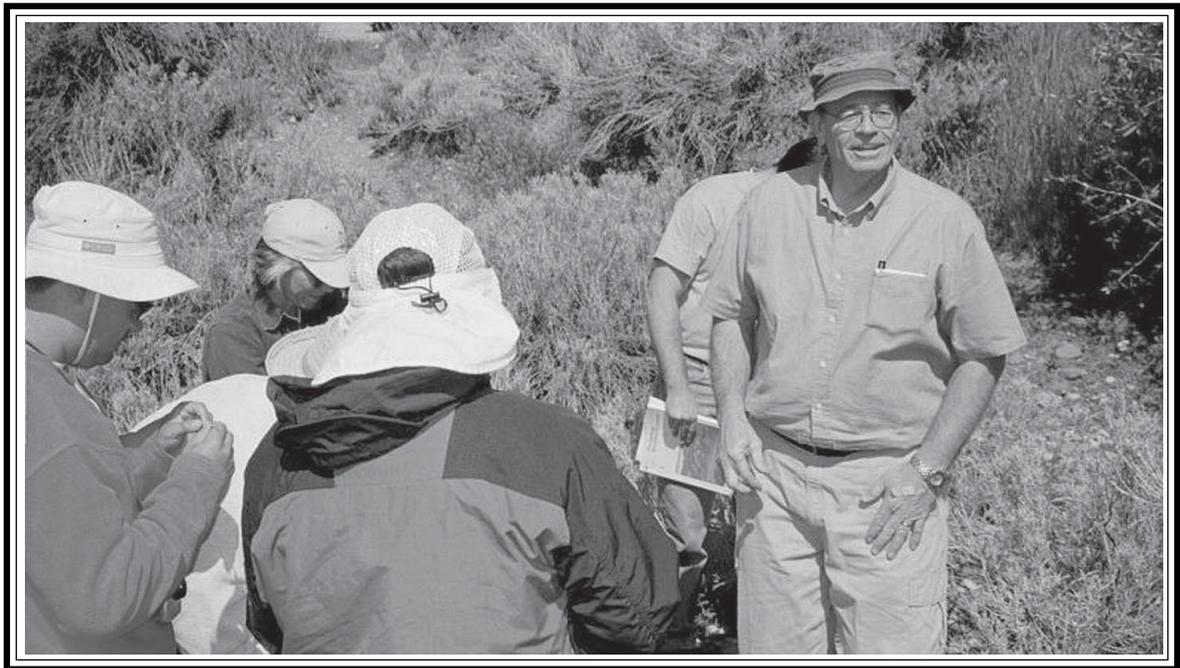


Figure 2—An enthusiastic Durant sharing his research on the University of Wyoming shrubland ecology graduate class field trip to central Utah in May 2002.



Restoration and Revegetation



Aquilegia laramiensis

Illustration on the reverse side is by Isobel Nichols. In: Fertig, W.; Refsdal, C.; Whipple, J. 1994. Wyoming rare plant field guide. Cheyenne: Wyoming Rare Plant Technical Committee. Available at: <http://www.npwr.usgs.gov/resource/distr/others/wyplant/species.htm> (Accessed 12/18/03).