

2016
TEXAS
PLANT CONSERVATION
CONFERENCE
Fort Worth, Texas



BOTANICAL RESEARCH
INSTITUTE OF TEXAS

Program Agenda

2016 Texas Plant Conservation Conference

Wednesday, November 2, 2016

6:00-8:00 PM Evening Meet-and-Greet

**Meet at Clear Fork Food Truck Park (weather permitting),
(<http://www.clearforkfoodpark.com/>), 1541 Merrimac Circle, Fort Worth, TX,
76107.**

**For inclement weather meet at The Woodshed Smokehouse
(<http://woodshedsmokehouse.com/>), 3201 Riverfront Dr., Fort Worth, TX
76107.**

2016 TEXAS PLANT CONSERVATION CONFERENCE
Thursday, November 3, 2016
Speakers Session*

*Only presenting authors are listed in the agenda. See **Abstracts** for full citations.

- 8:00 AM **Registration & Breakfast - Botanical Research Institute Reception Hall**
- 9:00 **Welcome – Auditorium, Fort Worth Botanic Garden**
Edward Schneider, Ph.D., Executive Director, Botanical Research Institute of Texas and
Bob Byers, Director, Fort Worth Botanic Garden.
- 9:15 **Keynote Address: DISCOVERING AND PRESERVING TEXAS' BOTANICAL HERITAGE:**
GOOD FOR SCIENCE, GOOD FOR CONSERVATION. Barney Lipscomb, Botanical Research
Institute of Texas.
- 10:00 **AN ABSOLUTE GAME CHANGER FOR RARE SPECIES CONSERVATION: HOW YOU CAN BE**
INVOLVED IN A NEW NATIONAL INITIATIVE. Richard Heilbrun, Texas Parks & Wildlife
Department and Rob Denkhaus, Fort Worth Nature Center and Refuge.
- 10:30 **Break**
- 10:40 **RARE PLANT CONSERVATION COLLABORATION WITH PRIVATE LANDOWNERS IN**
EASTERN TEXAS. Jason Singhurst, Texas Parks & Wildlife Department.
- 11:00 **THE VASCULAR FLORA OF ENCHANTED ROCK STATE NATURAL AREA: RARE PLANTS**
AND CONSERVATION IMPLICATIONS. Kim Norton Taylor, Botanical Research
Institute of Texas.
- 11:20 **EFFECTS OF SOIL AMENDMENT APPLICATIONS ON RESTORATION OF NATIVE PRAIRIE**
PLANT COMMUNITIES. Heather Bass, Botanical Research Institute of Texas.
- 11:40 **NATIVE WARM SEASON GRASSES FOR WINTER STOCKPILING IN WEST-CENTRAL TEXAS.**
Brandon Carr, USDA-Natural Resources Conservation Service.
- 12:00 PM **Lunch - Botanical Research Institute Reception Hall**
Tours of Botanical Research Institute and Fort Worth Botanic Gardens.
- 1:30 **EVALUATION AND DEVELOPMENT OF NATIVE SEED SOURCES FOR WEST TEXAS.** Colin
Shackelford, Texas A & M University - Kingsville
- 1:50 **THE FEDERAL POLLINATOR AND MONARCH BUTTERFLY CONSERVATION INITIATIVE.**
Katie Boyer, U.S. Fish and Wildlife Service.

- 2:05 **DEVELOPING SEED SOURCES OF NATIVE PLANT ECOTYPES FOR MONARCH AND POLLINATOR RESTORATION.** Chris Best, U.S. Fish and Wildlife Service.
- 2:25 **FORESTS FOR MONARCHS: THE RESTORATION AND PROTECTION OF THE MONARCH BUTTERFLY OVERWINTERING HABITAT.** M. Rebeca Quiñonez-Piñón, Forests for Monarchs-Mexico.
- 2:45 **USDA/NRCS INVOLVMENT IN PLANT CONSERVATION INITIATIVES AND PROGRAMS TO CONSERVE HABITAT FOR WILDLIFE, INCLUDING MONARCHS AND OTHER POLLINATORS.** Russell Castro and Rickey Linex, USDA-Natural Resources Conservation Service.
- 3:10 **Break**
- 3:25 **USING USDA/NRCS PLANT MATERIALS CENTERS TO GROW AND EVALUATE POTENTIAL NATIVE FLOWERING PLANTS THAT DIRECTLY BENEFIT MONARCHS AND OTHER POLLINATORS.** Ricky Linex, USDA-Natural Resources Conservation Service.
- 3:45 **ROADSIDE SURVEYS OF MILKWEEDS IN TEXAS.** Janis Bush, Ph.D., University of Texas-San Antonio.
- 4:05 **EFFECT OF MAGNESIUM ON THREATENED NATIVE PLANT SPECIES BRACKETED TWISTFLOWER (*STREPTANTHUS BRACTEATUS*) IN GARDEN STUDY.** Leah Murray, U.S. Fish and Wildlife Service.
- 4:25 **HABITAT PREFERENCE FOR COMANCHE PEAK PRAIRIE CLOVER (*DALEA REVERCHONII*, FABACEAE) A RARE NORTH CENTRAL TEXAS ENDEMIC.** Allan Nelson, Ph.D., Tarleton State University-Stephenville.
- 5:00 PM **Break - Explore Fort Worth Botanic Garden and BRIT.**
- 5:30-6:30 **Poster Session and Social Hour- Botanical Research Institute Reception Hall
See Poster Presentation Titles, Below.**
- 6:30-8:00 **Evening Reception & Continue Poster Session –
Botanical Research Institute Reception Hall
Heavy hors d'oeuvres Reception**

2016 TEXAS PLANT CONSERVATION CONFERENCE
Thursday, November 3, 2016
POSTER SESSION - Botanical Research Institute Reception Hall

5:30-6:30 PM

USING WHOLE-GENOME SEQUENCING TO BETTER DISTINGUISH THE FEDERALLY ENDANGERED NECHES RIVER ROSE MALLOW (*HIBISCUS DASICALYX*) FROM ITS CO-OCCURRING CONGENERS

Joshua Banta, Julia Norrell, Kate Hertweck, John S. Placyk, Jr.¹, Melody Sain², Randall Small³,
¹University of Texas-Tyler, ²University of Wisconsin-Madison, ³University of Tennessee-Knoxville

THE NECHES RIVER ROSE MALLOW (*HIBISCUS DASICALYX*) IS DEAD, LONG LIVE THE NECHES RIVER ROSE MALLOW? TAXONOMIC CLARIFICATION USING EVOLUTIONARY GENETICS.

Katherine Barthel, Julia Norrell, Melody Sain, John S. Placyk, Jr., Kate Hertweck, Marsha Williams, Joshua Banta, University of Texas-Tyler; Randall Small, University of Tennessee-Knoxville.

USING WHOLE-GENOME SEQUENCING TO BETTER DISTINGUISH THE FEDERALLY ENDANGERED NECHES RIVER ROSE MALLOW (*HIBISCUS DASICALYX*) FROM ITS CO-OCCURRING CONGENERS

Joshua Banta, Julia Norrell, Kate Hertweck, John S. Placyk, Jr.¹, Melody Sain², Randall Small³,
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NATIVE SEED DEVELOPMENT FOR RELEASE IN CENTRAL TEXAS.

John Randall Bow, Forrest S. Smith, Keith A. Pawelek, Texas A & M University-Kingsville.

DEVELOPMENT OF MILKWEED SEED SOURCES FOR SOUTH AND WEST TEXAS.

John Randall Bow, Sarah B. Grant and Forrest S. Smith, Texas A & M University – Kingsville.

TEXAS ECOSYSTEMS AND VIRTUAL MAPPING.

Laura Clark, Texas Parks & Wildlife Department.

GROUND-TRUTHING POTENTIAL LOCATION OF THE FEDERALLY PROTECTED ENDANGERED PLANT SPECIES *H. DASICALYX* AND ITS CONGENER.

Samuel Davis, Melody Sain, John S. Placyk, Jr., Joshua A. Banta, University of Texas - Tyler; John Randall Small, University of Tennessee - Knoxville.

GENETIC DIVERSITY AND STRUCTURE OF A RARE ENDEMIC CACTUS (*SCLEROCACTUS BREVIHAMATUS* SSP. *TOBUSCHII*) AND AN ASSESSMENT OF ITS GENETIC RELATIONSHIP WITH A MORE COMMON CONGENER.

Niraj Rayamajhi, presented by Jyotsna Sharma, Texas Tech University - Lubbock.

TWENTY YEARS OF MONITORING THE ENDANGERED TEXAS SNOWBELL (*STYRAX PLATANIFOLIUS* SSP. *TEXANUS*).

Charlotte Reemts and Jacqueline Ferrato, The Nature Conservancy, Texas Chapter; Jackie Poole, Botanist.

A ROLE FOR HERBARIA IN PLANT CONSERVATION: THE TEXAS OKLAHOMA CONSORTIUM OF HERBARIA (TORCH)

Tiana F. Rehman, Botanical Research Institute of Texas.

STATUS AND DISTRIBUTION OF THE FORT WORTH PRAIRIE AND LAMPASAS CUT PLAIN ENDEMIC *PEDIOMELUM REVERCHONII* (FABACEAE)

Haley Rylander and Kim Norton Taylor, Botanical Research Institute of Texas.

2016 TEXAS PLANT CONSERVATION CONFERENCE
Friday, November 4, 2016
Speakers Session*

*Only presenting authors are listed in the agenda. See **Abstracts** for full citations.

- 8:00 AM **Registration and Breakfast - Botanical Research Institute Reception Hall**
- 8:30 **Welcome – Auditorium, Forth Worth Botanic Garden**
 Karen Clary, University of Texas, Lady Bird Johnson Wildflower Center.
- 8:40 **Presentation of Life-time Achievement Award to Robert J. O'Kennon by Kim Norton Taylor, BRIT.**
- 9:00 **Plenary Address: GLOBAL CHANGE AND THE CONSERVATION OF THE CENTRAL PLAINS GRASSLANDS**, Philip Fay, Ph.D., USDA-ARS & Environmental Science Institute, University of Texas-Austin.
- 9:50 **Break**
- 10:00 **VERTEBRATE AND INVERTEBRATE HERBIVORY ON THE FEDERALLY ENDANGERED *SPIRANTHES PARKSII* CORRELL AND SYMPATRIC CONGENER, *SPIRANTHES CERNUA*.**
 Deseri Nally, Texas A & M University - College Station.
- 10:20 **RARITY AND ENDANGERMENT IN TEXAS FERNS AND LYCOPHYTES: CAUSES AND SPECIAL CONSIDERATIONS.** George Yatskievych, Ph.D., University of Texas-Austin.
- 10:40 **PROGRESS FOR SEED BANKING OF ENDANGERED SPECIES AND MANAGEMENT OF TEXAS PRAIRIE DAWN, *HYMENOXYS TEXANA* (ASTERACEAE) AND ASSOCIATED ENDANGERED SPECIES AT A NEW HARRIS COUNTY PRECINCT 4 PRESERVE.** Anita Tiller, Mercer Botanic Gardens, TX.
- 11:00 **CONSERVATION GENETICS OF SHINNERY OAK: BACKGROUND, SAMPLING STRATEGY, AND DNA PROTOCOLS.** Drew Duckett, The Morton Arboretum, IL.
- 11:20 **THE RARE PLANT STUDY CENTER AND ITS RELEVANCE TODAY.** Anna Strong, Texas Parks & Wildlife Department.
- 12:00 PM **Lunch - Botanical Research Institute Reception Hall**
Tours of Botanical Research Institute and Fort Worth Botanic Gardens
- 1:30 **THE STORY OF A SURVIVOR: THE WEST TEXAS OAK, *QUERCUS HINCKLEYI* C.H. MULLER.**
 Janet Backs, University of Illinois - Chicago.
- 1:50 **PLANT CONSERVATION RESEARCH.** Jyotsna Sharma, Texas Tech University - Lubbock.

- 2:10 **TOBUSCH FISHHOOK CACTUS MONITORING AT LOVE CREEK PRESERVE, BANDERA COUNTY.** Charlotte Reemts, The Nature Conservancy, Texas Chapter.
- 2:30 **EDAPHIC DETERMINANTS OF THE DISTRIBUTION OF AN ENDANGERED TERRESTRIAL ORCHID: USING MAXENT AS AN INVESTIGATIVE TOOL FOR RARE PLANT CONSERVATION.** Rose Hsiao Hsuan Wang, Ph.D., Texas A & M University - College Station.
- 2:50 **Break**
- 3:00 **WHERE HAVE ALL THE FLOWERS GONE? FAMILIAR THREATS AND EVIDENCE OF OTHER THREATS TO *LOPHOPHORA* SPP.** Martin Terry, Sul Ross State University.
- 3:20 **TEXAS ECOSYSTEMS AND VIRTUAL MAPPING.** Laura Clark, Texas Parks & Wildlife Department.
- 3:50 **REGIONAL CONSERVATION STRATEGIES - ADDRESSING BIOLOGICAL AND SOCIOLOGICAL CHALLENGES TO SAVE PLANTS.** John R. Clark, Center for Plant Conservation.
- 4:10 **Conference Participant Discussion – What’s the Status of Plant Conservation in Texas?**
Karen Clary, Moderator, UT-LBJWC.
- 5:00 PM **Dinner on your own**

2016 TEXAS PLANT CONSERVATION CONFERENCE
Saturday, November 5, 2016
Field Trips and Seed Workshop

Note: Field trip and workshop start times are subject to change – confirm actual start and end time with organizers beforehand.

8:00 -5:00 pm **Field Trip 1 – Lake Mineral Wells State Park.** Led by botanists Barney Lipscomb and Robert J. O' Kennon, BRIT. Leave from BRIT.

9:30 -2:00 pm **Field Trip 2 - Forth Worth Nature Center and Refuge.** Led by naturalist Michelle Villafranca. Meet at Fort Worth Nature Center and Refuge.

8:00 -2:00 pm **Field Trip 3 - Seed Workshop - How to Collect High Quality Seeds for Conservation.** Taught by botanist Naomi Fraga, Rancho Santa Ana Botanic Garden. BRIT classroom.