

Texas Society for Microscopy Meeting Program April 2010



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Texas Society for Microscopy

“Embracing all forms of microscopy”

April, 2010 Meeting
Hilton Garden Inn
Frisco, Texas

Thursday, April 15 – Saturday, April 17

Thursday, April 15

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|-----------------|--------------------------------------------------------------------------------------|----------------------|
| 2:00 - 2:30 PM | MATH MOVES YOU (MMU) - Student Arrival and Registration | Frisco Bridges Foyer |
| 2:30 - 7:00 PM | Regular Meeting Registration | Frisco Bridges Foyer |
| 2:30 - 2:40 PM | INTRODUCTION , Jodi Roepsch, TSM President | Frisco Bridges B |
| 2:40 - 3:10 PM | YOUR JOURNEY TO THE FUTURE Lynn Mortensen, Raytheon, NCS Regional Director | Frisco Bridges B |
| 3:15 - 4:15 PM | (Group 1 –SEM) Hitachi, Marine Reef International | Frisco Bridges C |
| | (Group 2 – MMU Activities) Raytheon | Frisco Bridges A |
| 3:30 - 5:30 PM | Vendor and University Setup | Frisco Bridges B & C |
| 4:15 - 5:15 PM | (Group 1 – MMU Activities) Raytheon | Frisco Bridges A |
| | (Group 2 – SEM) Hitachi, Marine Reef International | Frisco Bridges C |
| 5:30 - 7:25 PM | Vendor Reception, Meet and Greet and University Recruiting | Frisco Bridges B & C |
| 7:25 - 7:30 PM | Conclusion Student Workshop | Frisco Bridges B & C |
| 7:30 - 9:30 PM | Executive Council Meeting | Frisco Bridges D |
| 9:30 - 10:30 PM | Hospitality Suite | Suite 510 |

Friday, April 16

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| 6:30 AM - 10:00 AM | Breakfast Served | Hotel Dining Area |
| 8:00 AM - 5:00 PM | Registration | Frisco Bridges Foyer |
| 8:40 AM - 10:30 AM | Platform Session A | Frisco Bridges A |
| 8:40 AM - 8:45 AM | OPENING REMARKS , Jodi Roepsch, TSM President | |
| 8:45 AM - 9:00 AM | TEACHERS AS SCIENTISTS: USING SCANNING ELECTRON MICROSCOPY TO ENGAGE PRE-SERVICE TEACHERS IN OPEN SCIENCE INQUIRY. <u>S.L. Westmoreland</u> , K. Grace, H. Hattori, M. Kumar, E. Lambert, and E. Wand. Department of Biology, Texas Woman’s University, Denton, Texas 76204. | |

- 9:00 AM - 9:15 AM **ELEMENTAL ANALYSIS OF PAINT CHIPS: AN OPEN INQUIRY INVESTIGATION BY A VETERAN HIGH SCHOOL CHEMISTRY TEACHER.** H.R. Hattori, and S.L. Westmoreland, Department of Biology, Texas Woman's University, Denton, TX, 76204.
- 9:15 AM - 9:45 AM Invited Speaker – Dr. Lee Hughes. Department of Biological Sciences, University of North Texas, Denton, Texas. **THE NATIONAL GENOMICS RESEARCH INITIATIVE: A PHAGE HUNTING EXPERIENCE FOR FRESHMEN.**
- 9:45 AM - 10:00 AM **MINERAL DEPOSITS IN DIOECIOUS MULBERRY.** Arthur Miti and Camelia Maier. Texas Woman's University, Denton, TX 76204.
- 10:00 AM - 10:30 AM **A RETROSPECTIVE ON OLD MICROSCOPE SLIDES.** Howard J. Arnott. University of Texas at Arlington, Arlington, Texas 76019.
- 10:30 AM - 11:30 AM **POSTER SESSION, BREAK and VISIT WITH VENDORS.** Frisco Bridges B & C

CHARACTERIZATION BY SCANNING ELECTRON MICROSCOPY OF CARBON STEEL EXPOSED TO CRYOGENIC TEMPERATURES. M. W. Pendleton¹, C. Mazzella², D. Newton², and B. B. Pendleton³. ¹Microscopy and Imaging Center, Texas A&M University, College Station, TX. 77843-2257, ²Wild Well Control, Inc./Blowout Tools, Inc., 2202 Oil Center Court, Houston, TX. 77073, ³Department of Agricultural Sciences, West Texas A&M University, Canyon, TX 79016-0001.

IRON CORROSION PRODUCTS IN WOOD RECOVERED FROM A HISTORIC SHIPWRECK CHARACTERIZED BY SCANNING ELECTRON MICROSCOPY. M. W. Pendleton¹, G. Fox², E. A. Ellis¹, and B. B. Pendleton³. ¹Microscopy and Imaging Center, Texas A&M University, College Station, TX. 77843-2257, ²Museum of Anthropology, Department of Anthropology, California State University, Chico, Chico, CA. 95929-0400, ³Department of Agricultural Sciences, West Texas A&M University, Canyon, TX. 79016-0001.

A COMPARATIVE ANALYSIS OF DENTITION OF FOUR SNAKES FROM THE BIG THICKET NATIONAL PRESERVE; *ELAPHE OBSOLETA LINDHEIMERI*, *CROTALUS HORRIDUS ATRICAUDATUS*, *NERODIA ERYTHROGASTER FLAVIGASTER*, *AGKISTRODON PISCIVORUS LEUCOSTOM*. Aracely Vazquez. Eastfield College, Mesquite, Texas 75150

IDENTIFICATION AND ANATOMICAL CHARACTERIZATION OF SOME MEDICINAL PLANTS USING DIGITAL MICROSCOPY. Nabarun Ghosh¹, Yasemin Celik¹, Christine Pesina¹, Christian D. Ridner¹ and Don W. Smith². ¹Department of Life, Earth and Environmental Sciences, West Texas A&M University, Canyon, TX 79016. ²Department of Biological Sciences, University of North Texas, Denton TX 76203.

STUDY OF ARTHROPOD ADAPTATIONS USING THE SCANNING ELECTRON MICROSCOPE TO ENHANCE HIGH SCHOOL LEARNING. K.M. Grace and S.L. Westmoreland. Biology Program, Texas Woman's University at Denton, Denton, TX 76207.

COMPARING *RHYNCHOSPORA INDIANOLENSIS* (SMALL) AND *RHYNCHOSPORA SCUTELLATA* (GRISEB.) ACHENE DIMENSIONS USING SCANNING ELECTRON

MICROSCOPY MEASUREMENTS TO CONSIDER THEM ONE SINGLE SPECIES.

Stephanie Campos. Eastfield College, Mesquite, Texas 75150

A COMPARISON OF ADAPTATIONS OF TRICHOMES AND STOMATA IN MESOPHYTES AND XEROPHYTES. E.L. Lambert, C. Maier, and S. L. Westmoreland. Department of Biology, Texas Woman's University, Denton, Texas, 76204.

MICROSCOPIC EVALUATION OF *PRYMNESIUM PARVUM* AND FISH KILL. Brian Yates, William Rogers and Nabarun Ghosh. Department of Life, Earth and Environmental Sciences, West Texas A&M University, Canyon, TX 79016.

ELECTRON MICROSCOPE AS AN INVESTIGATIVE TOOL TO STUDY HUMAN HAIR MORPHOLOGY. Mamta Kumar and Sandara Westmoreland. Biological Science. Texas Woman's University, Denton, TX.76204.

EXTRACELLULAR MATRICES THAT ACTIVATE $\beta 1$ INTEGRINS FACILITATE RAC1 ACTIVATION AND PROMOTE AXON EXTENSION. K.L. Thompson¹, D.L. Hynds¹, and P. Mc Fetridge². ¹Department of Biology, Texas Woman's University, Denton, Texas and ²School of Chemical Engineering and Materials Science, University of Oklahoma, Norman, Oklahoma.

CONSTRUCTION OF NON-PRENYLATABLABLE MUTANTS TO ASSESS THE ROLE OF RHO GTPASE GERANYLGERANYLATION IN NEURITE OUTGROWTH. J. Reddy, F. Samuel, and D.L. Hynds. Department of Biology, Texas Woman's University, Denton, Texas 76204.

11:30 AM - 12:15 PM Platform Session B

Frisco Bridges A

11:30 AM - 12:15 PM Invited Speaker – Dr. Puligandla Viswanadham. Mechanical and Aerospace engineering, University of Texas at Arlington, Arlington, Texas. **FAILURE ANALYSIS STRATEGIES IN ELECTRONICS INDUSTRY - PAST, PRESENT AND FUTURE.**

12:15 PM -2:00 PM TSM Luncheon followed by the General Business Meeting Hotel Dining Area

2:00 PM – 3:00 PM Platform Session C

2:00 PM - 2:45 PM Invited Speaker - Dr. Chris Gilpin, Department of Cell Biology, University of Texas Southwestern Medical School, Dallas, Texas. **FOCUSED ION BEAM APPLICATIONS FOR BIOLOGICAL SPECIMENS.**

2:45 PM - 3:00 PM **AN SEM STUDY OF RUST ON SAW GREENBRIER.** Paul M. Gray and [Josephine Taylor](#). Department of Biology, Stephen F. Austin State University, Nacogdoches, TX 75962.

3:00 PM - 3:30 PM Meet with Vendors and Break

Frisco Bridges B & C

3:30 PM - 4:15 PM Platform Session D

Frisco Bridges A

3:30 PM - 3:45 PM **LOCALIZATION OF OXIDATIVE AND NITROSATIVE STRESS IN PULMONARY HYPERTENSION IN LUNGS OF BROILERS (*Gallus domesticus*).** E. Ann Ellis¹, Jaime

Bautista-Ortega² and C. A. Ruiz-Feria². ¹Microscopy and Imaging Center and ²Dept. of Poultry Science, Texas A&M University, College Station, TX 77843

3:45 PM - 4:00 PM **INVESTIGATION OF MORPHOLOGICAL DIFFERENCES LEADING TO RUST RESISTANCE IN INDIAN GRASS.** Paul M. Gray and Josephine Taylor. Department of Biology, Stephen F. Austin State University, Nacogdoches, TX 75962.

4:00 PM - 4:15 PM **ULTRASTRUCTURAL CHANGES IN *PROSOPIS PUBESCENS* DUE TO COPPER TOXICITY.** M.N. Viveros¹, J.T. Ellzey², C. G.-A. Maier³, and C. Orabuchi³. ¹Environmental Science and Engineering Program The University of Texas at El Paso, El Paso, TX, 79968; ²Biological Sciences, The University of Texas at El Paso; El Paso, TX, 79968; and ³Texas Woman's University, Denton, TX 76204.

4:15 PM **ADJOURN**, Josephine Taylor, TSM President

8:00 PM – 10:00 PM TSM Hospitality Suite Suite 510

Saturday, April 17

7:00 AM - 11:00 PM Breakfast Served Hotel Dining Area

8:30 AM - 9:00 AM Registration Frisco Bridges Foyer

9:00 AM - 10:30 AM Platform Session E Frisco Bridges A

9:00 – 9:15 AM **LEAF SEXUAL DIMORPHISM IN DIOECIOUS MULBERRY SPECIES.** Carmen Ayala and Camelia Maier. Texas Woman's University, Denton, TX 76204.

9:15 AM - 9:30 AM **STUDIES ON THE PHYTOREMEDIATION PROPERTIES OF *EVAX VERNA (ASTERACEAE)*.** Chinwe Orabuchi and Camelia Maier. Texas Woman's University, Denton, TX 76204.

9:30 AM – 9:45 AM **LOSS OF GERM CELLS DUE TO ANDROGEN WITHDRAWAL IN ADULT RAT TESTES.** Dibyendu Dutta, In Park, Hiwot Guililat, Samuel Sang, and Nathaniel Mills. Dept. of Biology, Texas Woman's University, Denton, TX 76204.

9:45 AM – 10:00 AM **LEAF STOMATA AS BIOINDICATORS OF GLOBAL WARMING.** Natalie Cervantes and Camelia Maier. Texas Woman's University, Denton, TX 76204.

10:00 AM - 10:15 AM **MICROSCOPIC STUDIES OF THE MUTUALISTIC RELATIONSHIP BETWEEN THE SUNFLOWER AND THE HONEY BEE.** Jennie Wojtaszek and Camelia Maier. Texas Woman's University, Denton, TX 76204.

10:15 AM - 10:30 AM **WAX DEPOSITION IN LEEK (*ALLIUM PORRUM, ALLIACEAE*).** Pallavi Upadhyay and Camelia Maier. Texas Woman's University, Denton, TX 76204.

10:30 AM - 10:40 AM **BREAK**

10:40 AM – 10:45 AM **PRESENTATION** **STUDENT AWARDS**

10:45 AM – 10:50 AM **CLOSING REMARKS,**
Josephine Taylor, TSM President