20th Biennial Workshop on Aerial Photography, Videography, and High Resolution Digital Imagery for Resource Assessment

PRELIMINARY PROGRAM

Sponsored by
American Society for Photogrammetry and Remote Sensing

Hosted by
USDA-ARS Kika de la Garza Subtropical Agricultural Research Center

Workshop Co-Chairs
James H. Everitt and Chenghai Yang

Hoblitzelle Auditorium
Texas Agricultural Experiment Station
Weslaco, Texas
October 4-6, 2005

TUESDAY, OCTOBER 4

7:30 am **Registration**

8:30 am **Welcome**
Paul G. Sebesta, Director of Kika de la Garza Subtropical Agricultural Research Center, USDA-ARS, Weslaco, TX

Session I **Agriculture I**

Time: 9:00 am-11:50 am
Moderator: *Chenghai Yang*, USDA-ARS, Weslaco, TX

9:00 am **The Plant Indicator Method for Mapping Crop Yields in Response to Drought, Soil Salinity, and Other Stresses,** *Craig L. Wiegand*, USDA-ARS, Weslaco, TX; *Leonardo Pulido Madrigal*, Mexican Institute of Water Technology, Jiutepec, Morelos, Mexico (**Invited Presentation)**

9:20 am **Relating Image-Derived Vegetation Indices to Crop Yield,** *Gab-Sue Jang*, University of Missouri, Columbia, MO; *Kenneth A. Sudduth*, USDA-ARS, Columbia, MO; *Suk Young Hong*, National Institute of Agricultural Science and Technology, Suwon, Republic of Korea; *Newell R. Kitchen*, USDA-ARS, Columbia, MO; *Harlan L. Palm*, University of Missouri, Columbia, MO

9:35 am **Soybean Growing Area Monitoring in Northeast China Using Different Spatial Resolution Satellite Data**, *Bangjie Yang* and *Zhiyuan Pei*, Center for Agricultural Resources Monitoring, Ministry of Agriculture, Beijing, China

9:50 am **Remote Sensing Approach for Estimating Daily Crop Water Use,** *Stephan Maas* and *Nithya Rajan*, Texas Tech University, Lubbock, TX; *Jamey Duesterhaus*, Kansas State University, Manhattan, KS; *Robert Lascano*, Texas A&M University Agricultural Experiment Station, Lubbock, TX; *Jonghan Ko*, Texas Tech University, Lubbock, TX

10:05 am **Citrus Orchard Monitoring Using Aerial CIR Photography** *Qian Du*, Mississippi State University, Mississippi State, MS; *Chenghai Yang* and *James H. Everitt*, USDA-ARS, Weslaco, TX

10:20 am **Refreshment Break**

10:35 am **Significance of Emergence Date in Canopy Reflectance-based Crop Coefficient (Kcrf) Formulation,** *Harikishan Jayanthi* and *Christopher M. U. Neale*, Utah State University, Logan, UT

10:50 am **Use of Aerial Imagery in Variable-rate Cotton Growth Regulator Application,** *Stephan Maas* and *Wenxuan Guo*, Texas Tech University, Lubbock, TX; *Jerry Brightbill*, Brightbill Farms, Plainview, TX; *Jon Hooton*, Hooton Crop Care, Inc., Plainview, TX

11:05 am **Detection of Stressors in Glasshouse Crops Using Color Infrared Imagery: I. Damage Caused by Fungal Pathogens and Sooty Mold,** *Christopher R. Little* and *Kenneth R. Summy*, University of Texas-Pan American, Edinburg, TX

11:20 am **Detection of Stressors in Glasshouse Crops Using Color Infrared Imagery: II. Damage Caused by Insect and Mite Pests,** *Kenneth R. Summy*, *Christopher R. Little*, and *Ruben A. Mazariegos*, University of Texas-Pan American, Edinburg, TX; *J. Victor*

French, Texas A&M University-Kingsville Citrus Center, Weslaco, TX; *Andrew W. Scott, Jr.*, Rio Farms, Inc., Monte Alto, TX

11:50 am **Catered Luncheon**

Session II **Forestry/Rangeland**

Time: 1:00 pm-4:45 am
Moderator: *James H. Everitt*, USDA-ARS, Weslaco, TX

1:00 pm **Use of Very High Resolution Digital Oblique Photography in the Development of 3-Dimensional Models of Tree Measurements: Examples from Ground Based and Aerial Platforms,** *David R. Larsen*, University of Missouri, Columbia, MO

1:15 pm **The use of high-resolution imagery in the USDA Forest Service's Forest Inventory and Analysis program,** *Greg C. Liknes*, USDA Forest Service, St. Paul, MN

1:30 pm **Towards the Development of a Remote Sensing Based Coniferous Regeneration Monitoring System,** *Darren Pouliot* and *Doug King*, Carleton University, Ottawa, Ontario, Canada

1:45 pm **Ten Years of Leafy Spurge Biological Control at Theodore Roosevelt National Park, Medora, North Dakota,** *G. L. Anderson*, USDA-ARS, Sidney, MT

2:00 pm **Stream Width and Other Resource Measurements From VLSA Imagery,** *D. Terrance Booth* and *Samuel E. Cox*, USDA-ARS, Cheyenne, WY; *Robert D. Berryman*, Independent Programming Consulting, Boulder, CO

2:15 pm **Correlation Analysis of Fuel Moisture Content from Remote Automated Weather Stations and MODIS-Derived Vegetation Indices, West Texas High Desert,** *Mei Lani Cabico* and *Hongjie Xie*, University of Texas, San Antonio, TX

2:30 pm **Refreshment Break**

2:45 pm **Multi-scale, Object-oriented Analysis of QuickBird Imagery for Determining Percent Cover in Arid Land Vegetation,** *Andrea S. Laliberte, Albert Rango,* and *Ed L. Fredrickson*, USDA-ARS, Las Cruces, NM

3:00 pm **Thirty Years of Woodland Expansion in Central Nevada Great Basin: A Case Study of the Simpson Park Range,** *Rekha B. Pillai* and *Peter J. Weisberg*, University of Nevada, Reno, NV; *Emanuele Lingua*, University of Turin, Grugliasco (To), Italy

3:15 pm **Productivity and Forage Quality of Warm Season Grass Pastures in Relation to Canopy Reflectance in ASTER Wavebands,** *P. J. Starks, D. Zhao, W. A. Phillips,* and *M. A. Brown*, USDA-ARS, El Reno, OK; *S. W. Colman***,** USDA-ARS, Brookeville, FL

3:30 pm **Integration of Hyperspectral and Multispectral Remote Sensing with Environmental Modeling for Cost Effective Invasive Species Management**, *Charles Yuill, Michael Strager,* and *Chris Schaney*, West Virginia University, Morgantown, WV

3:45 pm **Monitoring Biological Control Effectiveness on Saltcedar at Lovelock, Nevada,** *G. L. Anderson*, USDA-ARS, Sidney, MT; *R. I. Carruthers*, USDA-ARS, Albany, CA; *C. J. Deloach*, USDA-ARS, Temple, TX

4:00 pm **Mapping of Non-forest Vegetation Using Fuzzy Logic on a Combination of High Resolution Aerial Imagery, SPOT 5, and Landsat 7 ETM+ in the Big Belt Mountains on the Helena National Forest, MT,** *Stephen R. Brown Jr.*, James Barber, and Geno Bassette, USDA Forest Service, Missoula, MT

Poster Session and Social Hour

Time: 4:30 pm-5:30 pm
Authors will be present and refreshments will be provided.

Small-format Aerial Photography for Assessing Change in Wetland Vegetation: A Case Study from Cheyenne Bottoms, Kansas, *James S. Aber* and *Susan W. Aber*, Emporia State University, Emporia, KS; *Firooza Pavri*, University of Southern Maine, Gorham, Maine; *Tamara Korenman*, Bethany College, Lindsborg, KS; *Robert L. Penner II*, Nature Conservancy, Topeka, KS

Spectral Discrimination of Hardwood Tree Species and Stressed Ash Trees in Support of the Emerald Ash Borer Emergency Program, *David Bartels*, USDA-APHIS, Edinburg, TX

Quantifying Spatial Distribution of Wind Tidal Flat Cyanobacterial Mats Using Color and Color Infrared Photography, *Hudson R. DeYoe, Kenneth R. Summy, D. Kettelkamp-Hinojosa, J. Carter,* and *A. Varquez*, University of Texas-Pan American, Edinburg, TX; *James H. Everitt, Rene M. Davis*, USDA-ARS, Weslaco, TX.

Airborne Multispectral Remote Sensing for Russian Wheat Aphid Infestations, *Norman Elliott*, USDA-ARS, Stillwater, OK; *Mustafa Mirik*, Texas A&M University Agricultural Experiment Station, Amarillo, TX; *Zhiming Yang* and *Mahesh Rao*, Oklahoma State University, Stillwater, OK; *Gerald J. Michels*, Texas A&M University Agricultural Experiment Station, Bushland, TX; *Vasile Catana*, USDA-ARS, Stillwater, OK; *Mpho Phoofolo, Kristopher L. Giles*, and *Tom A.Royer*, Oklahoma State University, Stillwater, OK

Using Color-infrared Aerial Photography to Distinguish Ashe Juniper, *James H. Everitt* and *Chenghai Yang*, USDA-ARS, Weslaco, TX; *H. B. Johnson*, USDA-ARS, Temple, TX; *Michael R. Davis*, USDA-ARS, Weslaco, TX

Mapping Natural Vegetation on the Welder Wildlife Refuge with QuickBird Satellite Imagery, *James H. Everitt, Chenghai Yang, and Reginald S. Fletcher*, USDA-ARS, Weslaco, TX; *D. L. Drawe*, Welder Wildlife Foundation, Sinton, TX

Assessing Wetland Cover Types with Pan-sharpened QuickBird Imagery, *Reginald S. Fletcher* and *James H. Everitt***,** USDA-ARS, Weslaco, TX

Assessing Biological Control Damage of Giant Salvinia Using Remote Sensing Technologies, *Dan Flores***,** USDA-APHIS, Edinburg TX; *James H. Everitt***,** USDA-ARS, Weslaco TX; *Jason Carlson***,** USDA-APHIS, Edinburg, TX

Evaluating Effectiveness of Some Agricultural Operations on Cotton by Using Remote Sensing Technology, *Shoil M. Greenberg, Chenghai Yang, and James H. Everitt*, USDA-ARS, Weslaco, TX

Wheat Disease Survey of the Texas Panhandle Using Landsat Thematic Mapper Imagery, *David Jones* and *Charlie Rush*, Texas A&M University Agricultural Experiment Station, Bushland, TX

A Technique to Facilitate Accurate Spectral Measurements and Color Infrared Imagery of Individual Leaves, *Christopher R. Little, Anna M. Vasquez, Monika D. Hannah, Mary A. Villanueva, Shireen Yousef,* and *Kenneth R. Summy,* University of Texas-Pan American, Edinburg, TX

Vegetation Mapping for Bush Fire Behavior: Application of Hyperspectral Remote Sensing Techniques, Girraween National Park, Southeastern Australia, *Michiru Miyamoto*, National Institute of Environmental Studies, Tsukuba, Ibaraki, Japan; *Sunil Bhaskaran*, University of Southern Queensland, Toowoomba, Queensland, Australia; *Ian Elms* and *Bill Goebel*, Environmental Protection Agency, via Ballandean, Queensland, Australia; *Kym Sparshott*, Environmental Protection Agency, Toowoomba, Queensland, Australia

Spectral Properties of Tree Cholla and Soapweed Yucca Measured by Ground and Airborne Hyperspectral Sensors and the Resulting Maximum Likelihood Classification of Rangelands, *Mustafa Mirik* and *Gerald J. Michels, Jr.,* Texas A&M University Agricultural Experiment Station, Amarillo, TX

Using Airborne Hyperspectral Imagery to Identify Local Infestation of Musk Thistle, Carduus Nutans L. from Co-occuring Vegetation, *Mustafa Mirik* and *Gerald J. Michels, Jr.,* Texas A&M University Agricultural Experiment Station, Amarillo, TX

Application of GIS and Remote Sensing Research to the USDA Screwworm Eradication Program, *Pamela L. Phillips* and *John B. Welch*, USDA-ARS, Brownsville, TX

Mapping the Invasive Species, Chinese Tallow with EO1 Satellite Hyperion Hyperspectral Image Data, *Amina Rangoonwala*, IAP World Services Inc., Lafayette, LA; *Elijah Ramsey III* and *Gene Nelson*, U.S. Geological Survey, Lafayette, LA

Spectral Properties of Common Weeds Associated With Cotton and Their Detection and Mapping Using Aerial Color Photography, *Daniel Salazar, Sam Bernabe, Ismael Acevedo, Christopher Little, Kenneth R. Summy,* and *Ruben A. Mazariegos,* University of Texas-Pan American, Edinburg, TX; *James H. Everitt* and *M. Rene Davis,* USDA-ARS, Weslaco, TX

Development of Synthetic Imagery for Visualization of Cotton Reflectance, *G.F. Sassenrath* and *V.J. Alarcon,* USDA-ARS, Stoneville, MS

Citrus Mapping Project in the Lower Rio Grande Valley of Texas, *Russell Sheetz* and *David Bartels,* USDA-APHIS, Edinburg, TX; *Chenghai Yang*, USDA-ARS, Weslaco, TX

Rationale and Effectiveness of Aerial Color Infrared Photography for Detecting Fields of Fallow-Season Cotton in Southern Texas, *Kenneth R. Summy, Christopher R. Little, Ruben A. Mazariegos,* and *Daniel Salazar,* University of Texas-Pan American, Edinburg, TX; *James H. Everitt* and *M. Rene Davis,* USDA-ARS, Weslaco, TX; *Andrew W. Scott, Jr.,* Rio Farms, Inc., Monte Alto, TX

Real-time Multispectral Remote Sensing System with High Spatial and Temporal Resolution, *Haitao Xiang* and *Lei Tian,* University of Illinois at Urbana-Champaign, Urbana, IL

Detection of Stressors in Glasshouse Crops Using Color Infrared Imagery: III. Effects of Salt Toxicity and Nutrient Deficiencies, *Shireen Yousef, Kenneth R. Summy, Christopher R. Little, Anxiu*

Kuang, and *Hudson R. DeYoe,* University of Texas-Pan American, Edinburg, TX; and *James H. Everitt,* USDA-ARS, Weslaco, TX

Mapping Ashe Juniper Infestations Using Airborne Hyperspectral Imagery, *Chenghai Yang* and *James H. Everitt,* USDA-ARS, Weslaco, TX; *H. B. Johnson,* USDA-ARS, Temple, TX; *Michael R. Davis,* USDA-ARS, Weslaco, TX

Evaluation of Remote Sensing Technology for Estimating Cabbage Physical Parameters, *Chenghai Yang,* USDA-ARS, Weslaco, TX; *Tong-Xian Liu,* Texas A&M University Agricultural Research and Extension Center, Weslaco, TX; *James H. Everitt,* USDA-ARS, Weslaco, TX

WEDNESDAY, OCTOBER 5

Session III **Agriculture II**

Time: 8:00 am-11:45 am
Moderator: *Reginald S. Fletcher*, USDA-ARS, Weslaco, TX

8:00 am **Airborne Multispectral Remote Sensing Imaging for Detecting Irrigation Canal Leaks in the Lower Rio Grande Valley,** *Yanbo Huang* and *Guy Fipps,* Texas A&M University, College Station, TX; *Stephan Maas,* Texas Tech University, Lubbock, TX; *Reginald Fletcher,* USDA-ARS, Weslaco, TX

8:15 am **Method for Evaluation of Cotton Root Rot Control Practices Using Airborne High-resolution Digital Imagery,** C. *J. Fernandez,* Texas A&M University Agricultural Experiment Station, Corpus Christi, TX; C. *Yang* and *J. H. Everitt,* USDA-ARS, Weslaco, TX

8:30 am **Automating the Generation of Prescription Files for the Aerial Application of Insecticides,** *A. Dale Magoun, Jose L. Cordova,* and *Lon A. Smith,* University of Louisiana, Monroe, LA

8:45 am **Hyperspectral Field Spectrometry for Estimating Greenbug (Homoptera: Aphididae) Damage in Wheat,** *Mustafa Mirik, Norman C. Elliott, Robert Bowling,* and *Gerald J. Michels, Jr.,* Texas A&M University Agricultural Experiment Station, Amarillo, TX

9:00 am **Detecting Greenbug Infestation in Wheat Using a Field Radiometer,** *Mahesh Rao* and *Zhiming Yang***,** Oklahoma State University, Stillwater, OK; *Norm Elliott***,** USDA-ARS, Stillwater, OK

9:15 am **Laboratory Spectral Reflectance Data for Foliage Collected in Support of AISA+ Hyperspectral Overflights of Selected Sites at the USDA-ARS, Weslaco, TX**, *Barrett N. Rock* and *Michael Gagnon,* University of New Hampshire, Durham, NH; *Paul Mausel, Ryan Jensen,* and *Nelson Dias*, Indiana State University, Terre Haute, IN

9:30 am **Assessment of Single Date and Multispectral Classification Using Color-infrared Photography For Selected Row Crop Identification in South Texas,** *D. Salazar, K. R. Summy, C. R. Little,* and *R. A. Mazariegos,* University of Texas-Pan American, Edinburg, TX; *J. H. Everitt* and *M. R. Davis,* USDA-ARS, Weslaco, TX

9:45 am **Use of Satellite Imagery to Radiometrically Calibrate Digital Airborne Multispectral Imagery**, *Stephan Maas, Jessica Torrion, Sepalika Rajapakse,* and *Wenxuan Guo,* Texas Tech University, Lubbock, TX

10:00 am **Refreshment Break**

10:15 am **Profile and Seasonal Characteristics of Ground-based Soil Moisture and Their Relationship with Satellite Image-based NDVI,** *Xianwei Wang and Hongjie Xie***,** University of Texas, San Antonio, TX

10:30 am **Building Better Precision Agriculture Systems for Farmers with GIS,** *Jamal Jokar, Manoochehr Faraj zadeh, Ali mousiavnd,* and *Ali darvishi,* Tarbiat Modares University, Iran

Session IV **Water Quality/Fishery**

Time: 10:50am-11:50 am
Moderator: *Ryan Jensen,* Indiana State University, Terre Haute, IN

10:50 am **Preliminary Spectral Assessment of Laguna Madre Water Features Using AISA+ Hyperspectral Data,** *Paul Mausel, Ryan Jensen,* and *Nelson Dias,* Indiana State University, Terre Haute, IN; *Chenghai Yang, James Everitt,* and *Reginald Fletcher,* USDA-ARS, Weslaco, TX; *Don Hockaday* and *Hudson DeYoe,* University of Texas-Pan American, Edinburg, TX

11:05 am **Hyperspectral Reflectance Estimation of Reservoir Water Quality,** *Kenneth A. Sudduth,* USDA-ARS, Columbia, MO; *Gab-Sue Jang,* University of Missouri, Columbia, MO; *Robert N. Lerch* and *E. John Sadler,* USDA-ARS, Columbia, MO

11:20 am **Application of Hyperspectral Imagery and Digital Photography to Manage Harmful Algal Blooms in Aquaculture Systems: Where Are We?** *Steven J. Thomson* and *Paul V. Zimba,* USDA-ARS, Stoneville, MS

11:35 am **Estimating Water Surface Area at Different Flows Using High-resolution Multispectral Digital Imagery,** *Christopher M. U. Neale, Craig Addley, Raghuveer Vinukollu, Deepak Lal,* and *Daniel Zaccaria,* Utah State University, Logan, UT

11:50 am **Catered Luncheon**

Session V **Systems and Techniques**

Time: 1:00 pm-4:45 pm
Moderator: *Stephan Maas,* Texas Tech University, Lubbock, TX

1:00 pm **Applications of Remotely Piloted Vehicles (RPV's) for Collection of High Resolution Digital Imagery,** *Mark W. Jackson* and *Perry J. Hardin,* Brigham Young University, Provo, UT

1:15 pm **A Remotely Piloted Vehicle for Ecological Studies: Vehicle Design,** *Perry J. Hardin* and *Mark W. Jackson,* Brigham Young University, Center for Earth Remote Sensing, Orem, UT

1:30 pm **High-resolution Multispectral Digital Photography Using Unmanned Airborne Vehicles,** *E. Raymond Hunt, Jr., Charles L. Walthall,* and *Craig S. T. Daughtry,* USDA-ARS, Beltsville, MD; *Stephen J. Fujikawa, David Yoel, Farshad Khorrami,* and *Michael Tranchitella,* Intellitech Microsystems, Inc., Bowie, MD

1:45 pm **A Discussion About the Effects of Bright, Overcast, and Clear Weather Conditions on Aerial Photographs Taken by a Digital Frame Camera**, *Jamie Heath, T*errasaurus Aerial Photography Ltd., British Columbia, Canada

2:00 pm **Detailed Change Detection Using High Spatial Resolution Frame Center Matched Aerial Photography**, *Lloyd L. Coulter, Steven J. Lathrop,* and *Douglas A. Stow*, San Diego State University, San Diego, CA

2:15 pm **A Comparison of Small-format Digital vs. Metric Aerial Cameras for Medium to Large-scale Mapping,** *Armando Peralta-Higuera, Jorge Prado-Molina, Enrique Cabral-Cano, and Oscar Díaz-Molina*, University of Mexico, Coyoacán, Mexico

2:30 pm **System to Automatically Geo-rectify Images and Allow Quick Transformation into a Prescription Map**, *Randy R. Price*, Louisiana State University, Baton Rouge, LA

2:45 pm **Refreshment Break**

Session VI **Natural Resource/Land Use**

Time: 3:00 pm-4:45 pm
Moderator: *Gerald L. Anderson*, USDA-ARS, Sidney, MT, USDA-ARS, Weslaco, TX

3:00 pm **High Resolution Satellite Imagery as a Tool for Positional Error Detection in Digital Cadastre Implementation: The Nigerian Experience,** *L. Layi Arinola*, Ibadan, Oyo, Nigeria

3:15 pm **Evaluating Hyperspectral Imagery for Delineation of Invasive Plant Species,** *Amy Lee*, U.S. Army Corps of Engineers, Vicksburg, MS; *Jennifer Wozencraft*, U.S. Army Corps of Engineers, Kiln, MS

3:30 pm **Louisiana Coastal Zone Erosion: An Historical Analysis of 100+ Years of Land Use and Landcover Change Using GIS and Remote Sensing Data,** *Lionel D. Lyles* and *Fulbert Namwamba*, Southern University, Baton Rouge, LA

3:45 pm **Historical Analyses of the Palo Alto Battlefield National Historic Site Vegetation Landscape Changes from 1934 to 2000,** *Gene A. Nelson* and *Elijah W. Ramsey III*, National Wetlands Research Center, Lafayette, LA

4:00 pm **Quantification of Irregular Settlements over Conservation Land in Southern Mexico City,** *Armando Peralta-Higuera, Jorge Prado-Molina, Clemencia Santos-Cerquera, Gerardo Tapia Echánove, and Adrián Guillermo Aguilar*, University of Mexico, Coyoacán, Mexico

4:15 pm **Identification of Archaeological Sites in Ancient Agricultural Terraces in Teotihuacán, Mexico,** *Julia Pérez, Armando Peralta, Gerardo Tapia, and Jorge Prado*, University of Mexico, Coyoacán, Mexico

4:30 pm **Diagnosis and Delimitation of a Natural Protected Area using High-resolution Multispectral Images,** *Jorge Prado-Molina and Armando Peralta-Higuera*, University of Mexico, Coyoacán, Mexico

Banquet and Rene Singing Elvis Show

Time: 6:30 pm-9:00 pm
Location: Best Western Hotel

THURSDAY, OCTOBER 6

Session VII **Wetland/Coastal Zone**

Time: 8:00 am-10:00 am
Moderator: *Kenneth R. Summy*, University of Texas-Pan American, Edinburg, TX

8:00 am **Wetland Composition and Productivity Mapping Using Ikonos Imagery,** *Kristie Dillabaugh* and *Doug King*, Carleton University, Ottawa, Ontario, Canada

8:15 am **Remote Sensing of Resaca Wetlands in South Texas**, *R. I. Lonard* and *F. W. Judd*, University of Texas-Pan American, Edinburg, TX; *J. H. Everitt* and *M. R. Davis, USDA-ARS*, Weslaco, TX

8:30 am **Application of High Resolution Digital Aerial Photography to Monitoring Ecological Conditions of Texas Seagrass Beds,** *Warren Pulich, Jr.*, Texas State University, San Marcos, TX; *Reginald Fletcher, USDA-ARS, Weslaco, TX; Beau Hardegree*, Texas State University, San Marcos, TX

8:45 am **Spectral Reflectance of Coastal Mangrove Communities in South Padre Island, Texas Using AISA+ Hyperspectral Data,** *Ryan Jensen, Paul Mausel*, and *Nelson Dias*, Indiana State University, Terre Haute, IN; *Chenghai Yang, James Everitt*, and *Reginald Fletcher*, USDA-ARS, Weslaco, TX

9:00 am **Use of CIR Photography in the Development of Vegetation Maps for Spoil Islands of the Lower Laguna Madre, Texas,** *Rubén A. Mazariegos, Kenneth R. Summy, Frank W. Judd, Robert I. Lonard*, and *Michael R. Heep*, University of Texas-Pan American, Edinburg, TX; *James H. Everitt* and *M. Rene Davis*, USDA-ARS, Weslaco, TX

9:15 am **Use of Aerial Color Infrared Photographs for Change Detection Analysis of Vegetation Patterns in Dune Areas of South Padre Island, Texas,** *Kenneth R. Summy, Frank W. Judd, Robert I. Lonard, Ruben A. Mazariegos*, and *Leonor Longoria*, University of Texas-Pan American, Edinburg, TX; *James H. Everitt* and *M. Rene Davis*, USDA-ARS, Weslaco, TX; *Manuel Villalpando*, Texas State Technical College, Harlingen, TX

9:30 am **Tsunami Assessment in the Coastal Region Between Kanyakumari and Ovari, Tamil Nadu – A Case Study,** M. *Rajamanicakam, N. Chandrasekar*, and *S. Saravanan*, Manonmaniam Sundaranar University, Tamilnadu, India; *Hentry*, St. Jude's College, Thoothoor, India; *J. Loveson Immanuel*, Manonmaniam Sundaranar University, Tamilnadu, India

9:45 am **Refreshment Break**

Session VIII **Pest/Wildlife**

Time: 10:00 am-11:15 am
Moderator: *David Bartels*, USDA-APHIS, Edinburg, TX

10:00 am **Using LANDSAT Imagery to Identify Potential Ocelot Habitat in Tamaulipas, Mexico,** *Aaron M. Haines*, Caesar Kleberg Wildlife Research Institute, Kingsville, TX; *Arturo Caso, Michael E. Tewes*, and *Eric J. Redeker*, Texas A&M University-Kingsville, Kingsville, TX

10:15 am **Modelling and Mapping Potential Hooded Warbler (*Wilsonia citrina*) Habitat Using Ikonos**, *Jon Pasher, Doug King,* and *Kathryn Lindsay*, Carleton University, Ottawa, Ontario

10:30 am **Daily Fluctuations in Imported Fire Ant (*Solenopsis* spp., Hymenoptera: Formicidae) Mound Surface Temperature**, *James T. Vogt*, USDA-ARS, Stoneville, MS; *Bradley Wallet*, Automated Decisions LLC, East Lansing, MI

10:45 am **Graphical Exploration of Features to Detect Imported Fire Ant (*Solenopsis* spp., Hymenoptera: Formicidae) Mounds in High Resolution Aerial Imagery,** *Bradley Wallet*, Automated Decisions LLC, East Lansing MI; *James T. Vogt*, USDA-ARS, Stoneville, MS

11:00 am **Closing Remarks**