- **C. Invited and noteworthy presentations** (from PhD, not for entire career):
- C1. **Nagler, P.L.** 2001. *Invited* by Charlie Sanchez (USFWS), <u>Oral Presentation:</u> Monitoring Vegetation in the Colorado River Delta. Tucson, Arizona. January 29.
- C2. **Nagler, P.L.** 2001. *Invited* by Craig Daughtry (USDA-ARS Beltsville, MD), <u>Oral Presentation:</u> The use of hyperspectral cellulose-absorption index for non-agricultural litters, and for discriminating soil and litter in mixed scenes: Results from the Agro-Environmental Institute Fellowship in Japan. AGU Meeting. San Francisco, CA. December 12.
- C3. **Nagler, P.L.** 2002. *Invited* by Bruce Kimball (USDA-ARS Arid Land Agricultural Research Center), <u>Oral Presentation:</u> Remote Sensing Applications: Environmental Assessment of the Colorado River delta, Mexico. USDA-ARS, Water Conservation Laboratory, Phoenix, AZ. Jan. 28.
- C4. Rodriguez, E. Patricia, Alfredo R. Huete, David Schaub, Kamel Didan, Tomoaki Miura, Ed Glenn & Pamela Nagler. 2002. *Noteworthy* Oral Presentation:* Application of MODIS Vegetation Indices to Monitor the Seasonal Responses and Water Use Impacts over the Colorado River Delta Area, NW Mexico. Buenos Aires, Argentina, April 8-12. *Our research in the Colorado River Delta are of interest to researchers of arid/semi-arid river delta in other regions of the globe.
- C5. Rodriguez, E. Patricia, Alfredo R. Huete, David Schaub, Kamel Didan, Tomoaki Miura, Ed Glenn & Pamela Nagler. 2002. <u>Oral Presentation:</u> Application of MODIS Vegetation Indices to Monitor the Seasonal Responses and Water Use Impacts over the Colorado River Delta Area, NW Mexico. Missoula, Montana. July 15-18.
- C6. **Nagler, P.**, E. P. Glenn, & T.L. Thompson. 2002. *Invited by Wim van Leeuwen (U. Arizona, Office of Arid Lands)*, *Oral Presentation:* Comparison of transpiration rates among riparian trees using sap flow and leaf temperature methods. 87th Annual Ecological Society of America (ESA) Meeting. Tucson, Arizona. August 4-9.
- C7. **Nagler, P.**, & E. Glenn, K. Schiff, R. Romo, C. Curtis. 2003. *Invited by Susan Moran (USDA-ARS, Southwest Research Center)*, *Oral Presentation:* Mapping Vegetation on the Lower Colorado River. NASA/USDA Workshop on Agricultural Decision Support System. Denver, CO. March 4-5.
- C8. **Nagler, P.**, & E. Glenn. 2003. *Invited by Tim Carlson (Director, Tamarisk Coalition), <u>Oral Presentation:</u>
 Salt Cedar and Native Trees: Stress Tolerance, ET Rates, & Ecophysiology. Tamarisk Symposium.
 Grand Junction, CO. October 22-24.*
- C9. **Nagler, P.**, O. Hinojosa-Huerta, R. Romo, E. Glenn, A. Huete, & C. Curtis. 2003. *Invited by Susan Moran (USDA-ARS, Southwest Research Center), <u>Oral Presentation:</u> Quantifying land cover and avian habitat in the delta of the Colorado River. 30th International Symposium on Remote Sensing of Environment. Honolulu, HI. November 10-14.*
- C10. **Nagler, P.**, E. Glenn., R. Romo, H. Kim, & C. Curtis. 2003. *Invited by Craig Westenberg (USGS NVWSC)*, *Oral Presentation:* Remote Sensing Tools for Vegetation Mapping and ET Estimation on the Lower Colorado River. U.S. Geological Survey (USGS). Henderson, NV. December 10.
- C11. **Nagler, P.**, R. Romo, & E. Glenn. 2003. *Invited by Rick Brusca (Director Arizona Sonoran Desert Museum), <u>Oral Presentation:</u> Ground, Aerial, and Satellite Images of the Estuaries along the Sea of Cortez, Mexico. Colorado River Delta and Northern Gulf Ecosystems Workshop. Tucson, AZ. December 15-17.*
- C12. **Nagler, P.**, Curtis, C.C., & E.P. Glenn. 2004. *Invited by Pat Chavez (USGS Flagstaff)*. <u>Oral Presentation:</u> An inexpensive digital vegetation mapping system. 4th International Symposium Mobile Mapping Technology. Kunming, China. March 29-31.
- C13. Huete, A.* (speaker), K. Didan, D. Lampkin, E. Glenn, & **P. Nagler**. 2004. *Invited by Susan Moran (USDA-ARS, Southwest Research Center)*, *Oral Presentation:* Multi-Year MODIS Time Series Analysis of Land Conversion Processes in Semiarid Regions. Multi-temporal Image Analysis and Applications -

- Part VIII: Land Cover Trend Analysis at the 70th ASPRS Imaging and Geospatial Information Society Meeting. Denver, Colorado, May 23-28.
- C14. **Nagler, P.**, & E.P. Glenn. 2004. *Invited by Rick Brusca (Director Arizona Sonoran Desert Museum),*Oral Presentation: Ecological Models and Conservation Strategies for the Coastal Wetlands of the Northern Gulf of California. Gulf of California Esteros Working Group Workshop & Planning Proposal for Packard Foundation. Tucson, Arizona. June 17.
- C15. **Nagler, Pamela L.**, Edward P. Glenn, Craig Westenberg, & John Osterberg. 2005. *Invited by John Swenson (Cocopah Indian Tribe, Env. Protection Office)*, *Presentation:* Restoration strategies for riparian vegetation in the delta of the Colorado. Parker, Arizona. July 12-14.
- C16. **Nagler, Pamela L.**, Edward P. Glenn, Russ Scott, James Cleverly, Craig Westenberg, & Alfredo Huete. 2005. *Invited by Susan Moran (USDA-ARS)*, *Presentation:* Evapotranspiration on Western U.S. Rivers Estimated by Remote Sensing and Eddy Covariance Flux Tower Data. American Geophysical Union (AGU), Special Session in Hydrology *H23: Remote Sensing Approaches*. San Francisco, CA, Dec. 5-9.
- C17. **Nagler, P**. 2006. *Invited* by Alejandro Hinojosa-Corona (CICESE, Dept. Remote Sensing), <u>Oral Presentation:</u> Ecological Relationships and Water Use by Native Vegetation and Exotic Saltcedar on Western U.S. Rivers. Tijuana Ensenada, Mexico. February 2.
- C18. **Nagler, P.**, E. Glenn, H Kim, W. Emmerich, R. Scott, T. Huxman, & A. Huete. 2006. *Invited by Bill Kustas (USDA-ARS, Hydrology & Remote Sensing Lab)*, *Oral Presentation:* Seasonal and Interannual Variation of Evapotranspiration for a Semiarid Watershed Estimated by Moisture Flux Towers and MODIS Vegetation Indices. American Geophysical Union (AGU), Special Session in Hydrology, *H07: Monitoring the Terrestrial Water Cycle Through the Merger of Land Surface Models & Remote Sensing Observations*. Baltimore, MD. May 23-26.
- C19. **Nagler, Pamela L.**, Edward P. Glenn, Russ Scott, James Cleverly, Craig Westenberg, & Alfredo Huete. 2006. *Invited by Gary Hansen (Colorado River Indian Tribe)*, *Presentation:* Lessons Learned: Recent Ecology of the Colorado River Delta. Parker, AZ, October 17-19.
- C20. Nagler, P. 2006. Invited by Prof. Shunlin Liang (U. Maryland), Oral Presentation: Estimated Evapotranspiration of Large-Area Saltcedar Stands on the Lower Colorado River, USA (科罗拉多河下游大面积柽柳立地蒸散估计). The Chinese Academy of Sciences, Institute for Geographic Sciences & Natural Resources Research, Earth Observation, Ecosystem & Human Activities. International Partnership Project on "Human Activities and Ecosystem Changes." Peking University in Beijing, China. Dec. 21-23.
- C21. **Nagler, P.**, & E. Glenn. 2007. *Noteworthy** <u>Oral Presentation:</u> Regeneration of Native Trees and Wetlands: Results of an Unplanned, Twenty Year Experiment in the Colorado River Delta, Mexico. American Geophysical Union (AGU), Special Session in Hydrology, *H29--Geomorphic, hydrologic, and ecologic linkages in a transborder dryland river--The Colorado River.* Acapulco, Mexico. May 22-25. *This was the first data to demonstrate long-term impact of fire & flows on age & health of native tree cohorts (published).
- C22. **Nagler, P.** 2007. *Noteworthy** <u>Poster Presentation:</u> Relationship Between Evapotranspiration and Precipitation Pulses in a Semiarid Rangeland Estimated by Moisture Flux Towers and MODIS Vegetation Indices. American Geophysical Union (AGU), Special Session in Hydrology, H19-- Land Surface Hydrology of the North American Monsoon Region. Acapulco, Mexico. May 22-25. *Although a poster, this scaling of ET and Precipitation in semi-arid rangelands with medium-resolution satellite imagery was the first research to demonstrate soil moisture holding capacity in the ecosystem from year-to-year during periods of drought (published).
- C23. **Nagler, P.** 2007. *Invited* by Ann Bleed (Director, Nebraska Department of Natural Resources), <u>Oral Presentation</u>: Estimates of Evapotranspiration Rates by Tamarisk Using a Combination of Ground

- and Remote Sensing Methods. Nebraska Water Law, Policy and Science Conference. University of Nebraska Water Center. Lincoln, NE. March 26-27.
- C24. **Nagler, P.,** & E. Glenn. 2007. *Invited by Stephen Sebestyen (USDA-FS), <u>Oral Presentation</u>: Hydrology and Ecology of the Colorado River Delta in the Face of Changing Climate and Land Use Practices: the Next Fifty Years. American Geophysical Union (AGU), Special Session in Global Change, <i>GC24-Environmental Monitoring: Luxury or Necessity?* San Fran., CA. Dec. 10-14.
- C25. Hultine, K., & **P. Nagler.** 2008. *Invited* by *Jim Ehleringer (U. Utah)*, *Oral Presentation*: Tamarisk (*Tamarix*) water flux patterns before, during and after episodic defoliation by the salt cedar leaf beetle on the Colorado Plateau, USA. International Society for Horticultural Science, 7th International Workshop on Sapflow. Seville, Spain. Oct. 21-24.
- C26. Glenn, E., & **P. Nagler**. 2008. *Invited* by Tim Carlson & Stacy Beaugh (Directors, Tamarisk Coalition)

 Oral Presentation: Tamarisk and Russian Olive Water Use Compared to Native Vegetation on
 Western U.S. Rivers. CO River Saltcedar Assess. Panel. Santa Cruz, CA. Nov. 10-12.
- C27. Nagler, Pamela L., & Edward P. Glenn. 2008. *Invited by Kate Kitchell (SBSC Center Director)*, <u>Oral Presentation</u>: Water Use by Riparian Plants on the Lower Colorado River. **Water Education**Foundation (WEF): Colorado River Basin Science & Resource Management Symposium, Scottsdale, Arizona. November 18–20.
- C28. **Nagler, P.**, & E. Glenn. 2008. *Noteworthy** <u>Oral Presentation:</u> Scaling sap flux measurements of grazed and ungrazed shrub communities with fine and coarse-resolution remote sensing in Monument Valley, Arizona. American Geophysical Union (AGU), Special Session in Biogeosciences, *B40: Interpretation of vegetation biophysical processes using xylem sap flux data and remote sensing techniques.* San Francisco, CA. Dec. 15-19.

 *Data from the Navajo Nation provided the first effects of grazing on arid shrubland transpiration
- C29. **Nagler, P.** 2009. *Noteworthy** <u>Oral Presentation:</u> Comparative Water Use by Native and Non-Native Riparian Species on Western U.S. Rivers. Tamarisk & Russian Olive Research Conference. Reno, NV. Feb. 18-19. *Water use data presented to myriad end-users and natural resource managers for uncultivated riparian species in arid lands that contrasted native and non-native species at the river reach scale.

rates and provided scaled evapotranspiration (ET) for the valley (published).

- C30. **Nagler, P.** 2009. **Noteworthy* & Invited** by Alfredo Huete (U. Arizona, Terrestrial Biophysics and Remote Sensing Lab), <u>Poster Presentation</u>: Combining ground and remote sensing methods to scale riparian and agricultural water use over the Lower Colorado River. The 4th Global Vegetation Workshop, University of Montana: Long term global monitoring of vegetation variables using moderate resolution satellites. Missoula, MT. June 16-19. *Despite being a poster presentation, this research highlighted the use of MODIS imagery for estimating actual ET of riparian woodland corridors cheaply & quickly for land/water managers (published).
- C31. Nagler, P. 2009. Noteworthy* & Invited by Kate Kitchell (USGS SBSC Center Director), <u>Oral Presentation</u>: The Myths About Saltcedar. For USGS Leadership: USGS NRP (Water) and BRD (USGS Biological Resources) Scientists & Managers* (noteworthy). Tucson, AZ. May 19-21.
- C32. **Nagler, P.** 2009. *Invited by Kristin Byrd (USGS WGSC), Poster and Oral Presentations:* (i) Scaling Riparian and Agricultural ET ... from MODIS. Part I. Description of method, and (ii) Part II. Application to the Lower Colorado River in the US. USGS Western Region Postdoctoral/New Researcher Colloquium. Menlo Park, CA. September 21.
- C33. Nagler, P. 2009. Noteworthy* & Invited by Kate Kitchell (USGS SBSC Center Director), <u>Oral Presentation</u>: Activities Related to Tamarisk Science Studies. For USGS Leadership: <u>Sharon Gross</u>, USGS Invasive Species Program Coordinator* (noteworthy). Phoenix, AZ. December 3.

- C34. Nagler, P. 2009. Noteworthy* & Invited by Kate Kitchell (USGS SBSC Center Director), Oral Presentation: Scaling Riparian and Agricultural ET in River Irrigation Districts Based on Potential ET, Ground Measurements of Actual ET, & MODIS EVI. For USGS Leadership:

 Sue Hazeltine, USGS Biological Resources Division Chief* (noteworthy). Tucson, AZ. Dec. 8. *This was the first time a simple, optical-band onl,y remote sensing method that was validated with ground measurements was used to estimate water use of riparian woodlands and adjacent agriculture which improved water balance estimates for the LCR (published).
- C35. **Nagler, P.** 2010. **Noteworthy* & Invited** by Kate Kitchell (USGS SBSC Center Director), <u>Oral Presentation</u>: Scaling Riparian and Agricultural ET in River Irrigation Districts Based on Potential ET, Ground Measurements of Actual ET, & MODIS EVI. For USGS Leadership at the Flagstaff Science Center* (noteworthy). Flagstaff, AZ. April 5. *This was the first time a simple, optical-band only remote sensing method that was validated with ground measurements was used to estimate water use of riparian woodlands and adjacent agriculture which improved water balance estimates for the LCR (published).
- C36. **Nagler**, **Pamela**. 2010. *Invited* by *Terry Slonecker (USGS, Geology, Geophysics & Geochemistry SC),*Oral Presentation: Narrow-band Cellulose Absorption Index and multi-temporal indices in study of plant litter, soils, green plants and riparian vegetation, Special Session: *Hyperspectral Remote Sensing Applications at USGS*. Amer. Assoc. Geographers (AAG). Wash., D.C. April 14-18.
- C37. **Nagler**, **Pamela**. 2010. *Invited* by Craig Daughtry (USDA-ARS Beltsville, MD; Remote Sensing Lab), Oral Presentation: Scaling Riparian and Agricultural Evapotranspiration (ET) in River Irrigation Districts Based on Potential ET, Ground Measurements of Actual ET, and MODIS EVI. Beltsville, Maryland. April 14-18.
- C38. Kokaly* (speaker), Raymond, **Nagler, P.**, Daughtry, C., Olssen, A., & Morrisette, J. 2010.

 **Noteworthy* & Invited by NASA Goddard, **Oral Presentation*: Application of hyperspectral, narrow-band Cellulose Absorption Index in study of the invasive species **Pennisetum ciliare* (buffelgrass) combined with thermal band remote sensing measurement of land surface temperature and ground-based air temperatures for early detection and resulting water use. HyspIRI Science Symposium on Ecosystem Data Products. Greenbelt, MD. May 4.

 **This remote sensing research provided the first use of my thesis research on the development of a hyperspectral index, CAI, for comparing invasive grasses against desert shrubs and soils based on senescent cellulose features in the short-wave infrared.
- C39. **Nagler**, **Pamela**. 2010. *Invited* by Julio Betancourt (USGS), <u>Oral Presentation</u>: Application of hyperspectral, narrow-band Cellulose Absorption Index in study of the invasive species <u>Pennisetum ciliare</u> (buffelgrass), Special Session: <u>Science and management priorities for mitigating the impacts of buffelgrass invasion and novel fire regimes in the Sonoran Desert. First Annual Buffelgrass Workshop. Tucson, AZ. May 5.</u>
- C40. **Nagler**, **Pamela**. 2010. *Invited* by Alfredo Huete (U. Arizona, Terrestrial Biophysical & Remote Sensing Lab), <u>Oral Presentation</u>: Modeling the phenology and spread of tamarisk beetle infestation and impact on water savings, Special Session *Land*: including Land Degradation and Land Process studies with remote sensing. ISPRS Commission VIII Symposium. Kyoto, Japan. August 9-12.
- C41. **Nagler**, **Pamela**. 2010. *Invited* by *Prof. Rick Allen (Idaho)*, *Oral Presentation:* Scaling Riparian and Agricultural Evapotranspiration (ET) in River Irrigation Districts Based on Potential ET, Ground Measurements of Actual ET, and MODIS EVI. Remote Sensing and Hydrology Symposium, Jackson Hole, WY. September 27-30.
- C42. **Nagler**, **Pamela**. 2010. *Invited* by *Prof. Chris Neale (Utah State)*, *Oral Presentation:* Monitoring impacts of *Tamarix* leaf beetles (*Diorhabda elongata*) on the leaf phenology and water use of *Tamarix* spp. using ground and remote sensing methods. Remote Sensing and Hydrology Symposium, Jackson Hole, WY. September 27-30.

- C43. Nagler, P. 2010. Noteworthy* & Invited by Rama Kotra (USGS Office of Science Quality and Integrity (OSQI)) for Award at the USGS Western Regional Awards Ceremony. DOI and USGS Leadership: Marcia McNutt, USGS Director and Science Advisor to the Secretary of DOI, and Anne Castle, Assistant Secretary for Water and Science* (noteworthy). Reston, VA. October 15.
- C44. **Nagler, P.** 2010. **Noteworthy* & Invited** by Kate Kitchell (USGS SBSC Center Director), <u>Oral Presentation</u>: Monitoring impacts of *Tamarix* leaf beetles (*Diorhabda elongata*) on the leaf phenology and water use of *Tamarix* spp. using ground and remote sensing methods. For USGS Leadership Team: USGS Western Region Center Directors and Regional Executives Annual Meeting* (*noteworthy*). Flagstaff, AZ. October 26.
- C45. **Nagler, P.** 2010. **Noteworthy* & Invited** by Kate Kitchell (USGS SBSC Center Director), <u>Oral Presentation</u>: Field Trip Guide and Road Trip Log; plus Invited Roadside Talk: Tamarisk State of Knowledge: Its Water Use and Ecology on Western U.S. Rivers. For USGS Leadership: USGS <u>Western Region Center Directors</u> and <u>Regional Executives</u> Annual Meeting* (*noteworthy*). October 26-28. Flagstaff, AZ. October 27.
- C46. **Nagler, P.** 2010. **Noteworthy* & Invited** by Kate Kitchell (USGS SBSC Center Director), <u>Oral Presentation</u>: Water relations, tamarisk, tamarisk beetle, and other projects on buffelgrass and hyperspectral remote sensing, Science Session: Riparian/Aquatic Ecosystems Overview and Science Presentations, moderated by Barb Ralston. USGS SBSC All Hands Meeting & USGS <u>Western Center Directors*</u> (noteworthy). Flagstaff, AZ. November 29-December 2.
- C47. Nagler, P. 2010. Noteworthy* & Invited by Marcia McNutt (USGS Director) to attend the Award Ceremonies for the Presidential Early Career Award for Scientists and Engineers (PECASE). First honored by Deanna Archuleta, Deputy Assistant Secretary for Water and Science, and the Hon. Dr. Carl E. Wieman, Associate Director for Science, Office of Science and Technology Policy, at the U.S. Department of Agriculture Building; then honored by Director John P. Holdren, Director of the Office of Science and Technology Policy, and President Obama, Executive Office of the President, at the Executive Office Building. Washington, D.C. December 13.
- C48. **Nagler**, **Pamela**. 2011. *Invited* by John Osterberg (Reclamation), <u>Oral Presentation</u>: Scaling Riparian & Agricultural Evapotranspiration (ET) in River Irrigation Districts Based on Potential ET, Ground Measurements of Actual ET, and MODIS EVI. Evapotranspiration (ET) Conference. Ohio Alliance Universities. Las Vegas, NV. February 23-25.
- C49. **Nagler, Pamela**. 2011. *Invited by Kate Kitchell (SBSC Center Director)*, *Oral Presentation:* Regional-scale impacts of Tamarix leaf beetles (*Diorhabda carinulata*) on leaf phenology and water use of Tamarix spp. determined by ground and remote sensing methods. USGS SBSC Climate and Land Use Change Symposium for <u>Matt Larsen</u> (USGS Associate Director, Climate and Land Use Change) and <u>Bruce Quirk</u> (Land Remote Sensing Program). Flagstaff, AZ. March 4.
- C50. Glenn, Edward* (speaker), & Pamela Nagler. 2011. *Invited by Jeff Milliken (Reclamation)*, <u>Oral Presentation*</u>: Remote Sensing Applications for US-Mexico Border Water Management. Workshop for Transboundary Water Allocations with California Dept of Water Resources, Jet Propulsion Lab (JPL), ARC, MSFS, Water Education Foundation (WEF). San Diego, CA. June 8-9.
- C51. **Nagler, Pamela**, Edward Glenn, & Alfredo Huete. 2011. *Invited by Jennifer Pitt (Environmental Defense)*, *Oral Presentation:* Vegetation index methods for estimating evapotranspiration by remote sensing. University Council on Water Resources (UCOWR), The National Institutes for Water Resources (NIWR) Conference: Planning for tomorrow's water: snowpack, aquifers, and reservoirs. Boulder, CO. July 11-14.
- C52. **Nagler, Pamela**. 2011. *Invited* by *Prasad Thenkabail (USGS-Geog), <u>Oral Presentation</u>: Comparison of evapotranspiration (ET) models using remote sensing. USGS Powell Center Special Session <i>Water Use/ET Modeling Effort for Global Croplands and Their Water Use for Food Security in the Twenty-first Century.* Ft. Collins, CO. September 26-30.

- C53. **Nagler**, **Pamela**. 2011. *Invited* by Marcia McNutt & Kavli (USGS Director), <u>Oral Presentation:</u>
 Regional-scale impacts of the *Tamarix* leaf beetles (*Diorhabda carinulata*) on the leaf phenology and water use of *Tamarix* spp. U.S. National Academy of Sciences (NAS) and the Chinese Academy of Sciences (CAS), 14th Annual Chinese-American Kavli Frontiers of Science Symposium. Shenzhen, China. November 5-7.
- C54. **Nagler**, **Pamela.** 2011. *Invited* by Sharon Megdal (Director of The University of Arizona Water Resources Research Center, WRRC), <u>Oral Presentation:</u> Regional-scale impacts of Tamarix leaf beetles (Diorhabda carinulata) on leaf phenology and water use of Tamarix spp. on western U.S. rivers. American Water Resources Association (AWRA). Albuquerque, NM. November 7-10.
- C55. **Nagler, Pamela**. 2011. *Invited* by Julia Fonseca (Pima County, AZ, Sustainability & Conservation Senior Planning Manager), <u>Oral Presentation:</u> Monitoring riparian vegetation with remote sensing and ground data. San Pedro Riparian National Conservation Area (SPRNCA) Technical Meeting, University of Arizona, Tucson, AZ. July 6-7.
- C56. **Nagler, Pamela**, & Edward Glenn. 2012. *Invited* by *Prof. Georgianne Moore (Texas A&M)*, *Oral Presentation*: Ecohydrology of saltcedar (Tamarix spp.) in the western United States and implications of water balance following a biocontrol agent introduction. American Geophysical Union (AGU), Special Session in Hydrology, *H04: Ecohydrology of Novel Ecosystems*. San Francisco, CA. December 3-7.
- C57. **Nagler, Pamela**. 2012. *Invited* by John Hoffmann (AZWSC Director), <u>Oral Presentation:</u> Ecohydrology of saltcedar (Tamarix spp.) in the western United States and implications of water balance following a biocontrol agent introduction. USGS Lunch Talk, Tucson, AZ. Nov. 9.
- C58. **Nagler, Pamela.** 2013. *Invited by Ian Overton (CSIRO Land and Water Director)*, *Oral Presentation:* Ecohydrology of terrestrial ecosystems in an era of rapid change Ecohydrology of saltcedar (*Tamarix* spp.) in the western United States and implications of water balance following a biocontrol (beetles) introduction. CSIRO Land and Water Flagship, Adelaide, Australia. Feb 13.
- C59. **Nagler, Pamela.** 2013. *Invited* by Carol Couch (CSIRO Land and Water Theme Leader), <u>Oral Presentation:</u> How regional climate change will affect local & basin-scale riparian vegetation, water use and habitat on the Murray-Darling Basin (MDB), as a focal point in Australia, and as a proof of concept study for forecasting the potential changes in riparian vegetation in response to climate variability and climate change. CSIRO Flagship and Stream Leaders: A presentation of Nagler OCE Award Research. CSIRO Headquarters, Canberra, Australia. March 1.
- C60. **Nagler, Pamela**. 2013. *Invited* by Paul Bertsch (CSIRO Land and Water Chief), <u>Oral Presentation:</u>
 Forecasting the effects of climate change on riparian ecosystems along the Murray-Darling Basin in response to reduced water availability. CSIRO. Adelaide, Australia. April 15.
- C61. **Nagler, Pamela**. 2013. *Invited* by Rod Oliver (CSIRO Land and Water Stream Leader), <u>Oral Presentation:</u> Forecasting the effects of climate change on riparian ecosystems along the Murray-Darling Basin in response to reduced water availability. CSIRO. Adelaide, Australia. April 22.
- C62. **Nagler, Pamela**, Tanya Doody (<u>presenter</u>), Edward Glenn, Kiyomi Morino, & Kevin Hultine. 2013. **Noteworthy*** <u>Poster Presentation</u>: Phreatophytes under stress: review of studies on transpiration and stomatal conductance of Tamarix across a western U.S. floodplain. International Society for Horticultural Science, 9th International Workshop on Sap Flow. Ghent, Belgium. June 3-7. *Despite being a poster presentation, this research provided a key contribution comparing physiological responses for groundwater dependent species for land/water managers.
- C63. **Nagler, Pamela**, Edward Glenn, Kevin Hultine, & Kiyomi Morino. 2013. *Invited by Craig Daughtry (USDA-ARS, Hydrology & Remote Sensing Lab)*, *Oral Presentation:* Environmental controls on saltcedar (*Tamarix* Spp.) transpiration and stomatal conductance and implications for determining evapotranspiration of saltcedar stands by remote sensing. International Geoscience and Remote

- Sensing (IGARSS), Special Session, *Impact of Remote Sensing Programs II*. Melbourne, Australia. July 22-26.
- C64. **Nagler, Pamela**. 2013. *Invited by Rod Oliver (CSIRO Land and Water Stream Leader), <u>Oral Presentation:</u> Final CSIRO OCE Award Project Results: Forecasting the effects of climate change on riparian ecosystems along the Murray-Darling Basin in response to reduced water availability. CSIRO Adelaide, Australia. CSIRO OCE Distinguished Visiting Scientist Final Report and Presentation. CSIRO Adelaide, Australia. Dec. 5.*
- C65. **Nagler, Pamela**. 2014. *Invited* by NASA/USGS to <u>Chair AGU Panel</u>: <u>After the pulse flow: Greening</u> <u>the Colorado River Delta</u>. <u>https://www.nasa.gov/content/goddard/2014-nasa-aguevents/#coloradoriver</u>. American Geophysical Union, San Francisco, CA. December 17.
- C66. Nagler, Pamela. 2015. Noteworthy* & Invited by USGS (Bruce Quirk), <u>Presentation</u>: Use of unmanned aerial systems (UAS) for detection & monitoring of invasive plant species in western riparian corridors. For USGS/NASA/Federal Agencies.* Unmanned Aerial Systems (UAS) 1st Inter-Agency Technical Workshop. Reston, VA (USGS Headquarters)* (noteworthy). May 19-21.
- C67. **Nagler**, **Pamela**. 2015. *Invited* by Craig Daughtry (USDA-ARS, Hydrology & Remote Sensing Lab), Oral Presentation: Use of unmanned aerial systems (UAS) for detection and monitoring of Buffelgrass and Tamarix in the Southwestern USA. USDA-ARS. Beltsville, MD. May 22.
- C68. Jarchow* (speaker), C. J., **P.L. Nagler**, & E. P. Glenn. 2015. *Noteworthy* & Invited* by Karl Flessa (U. Arizona, Geosciences Dept.), <u>Oral Presentation:</u> Response of Riparian Vegetation to the Minute 319 Environmental Pulse Flows to Mexico: Greenup and Evapotranspiration by Remote Sensing. Policy and Decision Makers Tour for the Minute 319 Flows to the Colorado River Delta in Mexico* (noteworthy). Mexicali, Sonora, Mexico. November 5. *student.
- C69. **Nagler, Pamela L**., Edward P. Glenn, Christopher J. Jarchow, Armando Barreto-Muñoz, Kamel Didan, Hamideh Nouri, Sharolyn Anderson, & Tanya M. Doody. 2015. *Invited by Gabriel Senay (SBSC-EROS)*, *Oral Presentation:* Estimating wide-area evapotranspiration at multiple scales using optical vegetation index methods. American Geophysical Union (AGU), Special Session in Hydrology *H045: Evapotranspiration: Advances in In Situ Measurements and Remote Sensing Based Modeling Approaches.* San Francisco, CA, Dec. 14-19.
- C70. **Nagler, Pamela L.,** Christopher J. Jarchow, Charles van Riper III, Uyen Nguyen, & Edward P. Glenn. 2016. *Invited by Prof. Daniel Potts* (State University of New York College at Buffalo), *Oral Presentation:* Estimating wide-area greenness and evapotranspiration in riparian corridors at multiple scales using optical remote sensing vegetation index methods. 101st Ecological Society of America Meeting, Special Session #11731: Ecosystem Consequences of a Changing Water Cycle in the Southwest. Ft. Lauderdale, FL. August 7-12. IP-073344
- C71. **Nagler, Pamela L**., Uyen Nguyen, Heather Bateman, Dan Bean, Christopher J. Jarchow, Patrick Shafroth, Jody Waugh, Charles van Riper III, & Edward P. Glenn. 2017. *Invited by Rusty Lloyd (RiversEdge West Director)*, *Oral Presentation*: Defoliation of Saltcedar (Tamarix spp.) by Saltcedar Beetles (*Diorhabda carinulata*) in the Upper Colorado River Basin: Potential for Water Savings. Tamarisk Coalition Conference. Fort Collins, CO. February 7-9. IP-080809
- C72. Pamela L. Nagler, Waugh, W. Joseph, John Vogel, Christopher J. Jarchow, & Edward P. Glenn. 2017. *Noteworthy* & Invited* by Johnathan Stock (USGS National Innovation Center), <u>Poster:</u> Effects of Changes in Tamarisk Evapotranspiration on Groundwater Flow and Contaminant Transport at a Southwestern Uranium Mill Tailings Site. USGS and Federal Partners UAS Meeting, NASA Ames Research Center* (noteworthy audience with myriad Federal Agencies; Virginia Burkett (USGS, Chief Scientist for Climate and Land Use Change), keynote speaker and she highlighted my drone project results on invasives & GW flux). Moffett Field, CA. Mar. 28-31.

- C73. **Nagler, Pamela L.,** Uyen Nguyen, Heather L. Bateman, Christopher J. Jarchow, Edward P. Glenn, William J. Waugh, & Charles van Riper III. 2017. *Invited* by Arjen Hoekstra, <u>Oral Presentation:</u> A review of the Northern Tamarisk beetle (*Diorhabda carinulata*) and tamarisk (*Tamarix* spp.) interactions in the Colorado River basin in the Western USA. Water Engineering and Management, Faculty of Engineering Technology, University of Twente, Enschede, The Netherlands. October 11. IP-090707
- C74. **Nagler, Pamela L.**, Christopher J. Jarchow, and Edward P. Glenn. 2017. *Invited by Bob Su, Oral Presentation:* Water use of riparian and upland plants in the arid southwestern USA and remotely sensed measurements of wide area estimates of evapotranspiration. Spatial Hydrology and Water Resources Management, University of Twente, Faculty of Geo-Information Science and Earth Observation (ITC), Dept. Water Resources, Enschede, Netherlands. Oct. 24. IP-091050
- C75. **Nagler, Pamela** L., W. Joseph Waugh, Christopher J. Jarchow, & Edward P. Glenn. 2018. *Invited by Rusty Lloyd, <u>Oral Presentation:</u>* Measuring Changes in Tamarisk Evapotranspiration in a Riparian Ecosystem near Shiprock, NM. 2018 Tamarisk Coalition. Grand Junction, CO. Feb. 6-8. IP-092450
- C76. **Nagler, Pamela L.,** Christopher J. Jarchow, & Edward P. Glenn. 2018. *Invited by Prof. Chris Neale (U. Nebraska, Director for Research, Daugherty Water for Food Global Institute), <u>Oral Presentation:</u>
 Using optical remote sensing to evaluate changes in greenness and evapotranspiration in riparian vegetation in response to the Minute 319 environmental pulse flow to Mexico, Special Session:
 <i>Earth Observation retrievals and data products linked to the water cycle,* Remote Sensing & Hydrology Symposium, ICRS-IAHS Proceedings. Andalusian Institute for Earth System Research (IISTA), University of Córdoba, Córdoba, Spain. May 8-10.

 IP-095466
- C77. **Nagler, P.** 2019. **Noteworthy*& Invited** to coordinate and host the visit by Jim Reilly, USGS Director* (noteworthy) for SBSC during his visit to the Tucson, AZ USGS. Tucson, AZ.
- C78. **Nagler, P.L.**, Jarchow, C.J., Barreto-Muñoz, A., & Didan, K. 2019. *Invited by Andrew French (USDA-ARS Maricopa)*, *Oral Presentation:* Greenness and evapotranspiration in the lower Colorado River Delta in response to environmental pulse flows. USD-ARS. Maricopa, AZ. Feb. 4. IP-102719, BAO Approved 01/30/19
- C79. **Nagler, P.L.,** Jarchow, C.J., Waugh, W.J., Barreto Muñoz, A., Hermann, S., & Didan K. 2019. *Invited by Kevin Hultine (Desert Botanical Gardens)*, *Oral Presentation:* Remote sensing estimates of evapotranspiration at a southwestern uranium mill tailings site. RiversEdge West Meeting at the Desert Botanical Gardens, Phoenix, AZ. February 5. IP-102718, BAO Approved 01/28/19
- C80. **Nagler, Pamela** research contributions. 2019. *Invited by* Sasha Reed and Seth Munson (SBSC, TDE) to contribute to their <u>Oral Presentations*</u>: SBSC's priority research science efforts in support of landscape management and invasive species. For USGS Ecosystem Mission & Program Area Leaders, Darrin Thome, Mark Sogge, et al. Flagstaff, AZ. Nov. 18-20.
- C81. Nagler, Pamela. 2020. *Invited* by <u>Mark Sogge</u> (USGS Interior Region 8 & 10 (Western) & USGS Regional Director), <u>Oral Presentation:</u> Briefing on the Colorado River Delta: Two decades of greenness & ET changes. <u>Darrin Thome</u>, <u>Mark Sogge</u>, & <u>Scott Vanderkooi</u>. Virtual, Sept. 14. IP-xxxxxx, BAO Approved 09/05/20
- C82. **Nagler, Pamela L.**, Kamel Didan, Armando Barreto-Muñoz. 2020 (virtual). *Invited by William Andrews (USGS Science Coordinator for Rocky Mountain Region)*, *Oral Presentation*: Riparian ET in the Lower Colorado River Basin for *EarthMap*, SBSC Riparian Corridor Data for the Lower Colorado

River. EarthMAP Capacity Assessment Team & Rocky Mountain Region Science Seminar and Research Exchange. September 16.

IP-123257, BAO Approved: 09/08/20

C83. **Nagler, Pamela**, Ray Kokaly, Jeff Morrisette, Aaryn Olssen, Phil Dennison, & Craig Daughtry. 2021. *Invited by Itiya Aneece (Hyperspectral Coordinator)*, *Oral Presentation (virtual)*: Exploring the cellulose absorption index from hyperspectral data for detection and monitoring of plant litter, crop residue, standing senescent vegetation and woody invasive plant species. USGS Hyperspectral Community. May 7.

IP-xxxxxx, BAO Approved 04/30/21 (abstract)

IP-xxxxxx, BAO Approved 04/30/21 (presentation)

C84. **Nagler, Pamela.** 2021. *Invited* by Karl Flessa (Colorado River Project Director), <u>Oral Presentation</u> (<u>virtual</u>): Lower Colorado River Delta Remote Sensing Key Findings of the Unrestored and Restored Areas. Colorado River Delta Minute 323 Adaptive Management Meeting. Virtual. July 13-15, 2021. IP-xxxxxx (abstract); BAO Approved April 30, 2021;

IP-xxxxxx (presentation); BAO Approved April 30, 2021;