Environmental Information Management 2008

Wednesday, September 10, 2008

7:00 AM	**Registration and Coffee**	(Student Union Building: outside Ballroom A)
8:15 AM	**Welcome to the conference**	C. Gries and M. Jones

Sensors and Sensor Networks Moderator: M. Jones (Student Union Building: Ballroom A)

8:30 AM	Bainbridge, Rehbein, Feather, Eggeling	Sensor Networks on the Great Barrier Reef – managing marine sensor data
8:45 AM	Conover, Regner, Maskey, Lu, Li, Goodman	Evolving Sensor Web Protocols for Sensor Data Management
9:00 AM	Benson, Winslow, Arzberger, Carey, Fountain, Hanson, Kratz, Tilak	Meeting the challenges of an international, grassroots organization of sites deploying sensor networks: the Global Lake Ecological Observatory Network (GLEON)
9:15 AM	Barseghian, Altintas, Jones	Accessing and Using Sensor Data within the Kepler Scientific Workflow System
9:30 AM	Liu, Hill, Abdelzaher, Heo, Choi, Minsker, Fazio	Virtual Sensor-Powered Spatiotemporal Aggregation and Transformation: A Case Study Analyzing Near-Real-Time NEXRAD and Precipitation Gage Data in a Digital Watershed
9:45 AM	Vande Castle, Servilla	Streaming Sensor Data from Space: Acquiring and Managing Direct Broadcast Satellite Data for Sites of the Long Term Ecological Research Network
10:00 AM	Henshaw, Bierlmaier, Bond, O'Connell	Building a "Cyber Forest" in Complex Terrain at the Andrews Experimental Forest
10:15 AM	Questions + Discussion	

10:30 - 11:00 AM BREAK

Keynote Address: James Clark, Duke Univ. (Student Union Building: Ballroom A)

11:00 -12:00 PM		Title to be determined

12:00 - 1:15 PM **LUNCH**

Wednesday (continued)

Metadata and Data Management Systems   Moderator: J. Cushing   (Student Union Building: Ballroom A)

1:15 PM	Leinfelder, Tao, Costa, Jones, Servilla, O'Brien, Burt	Using metadata for loading and querying heterogeneous scientific data
1:30 PM	Palanisamy, Wilson, Devarakonda, Green	Mercury: A Distributed Metadata Management, Data Discovery and Access System
1:45 PM	Moore, Walther, Cooper	Data Collaboration for Large-Scale Regional Surveys in Southern California
2:00 PM	Rugg	Archival Data Formats - Archivists and Users
2:15 PM	Babin, Hu	A Tale of Two Observing Systems: Visualization of Real-time Coastal Ocean Data on the Web
2:30 PM	Winslow, Benson, Chiu, Hanson, Kratz	Vega: A Flexible Data Model for Environmental Time Series Data
2:45 PM	Questions + Discussion	

3:00 - 3:30 PM BREAK

Poster Session   (Student Union Building: Ballroom B)

3:30 - 5:00 PM Poster Session
5:00 - 5:30 PM **Reception** and continued Poster session

5:30 - 7:30 PM **DINNER BREAK**

Panel Discussion   Moderator: Barbara Benson   (Student Union Building: Ballroom A)

7:30 - 9:00 PM   Challenges and solutions to managing, accessing, and using sensor data

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Thursday, September 11, 2008

8:00 - 8:30 AM **Coffee**

Data Integration, Analysis and Visualization Moderator: Corinna Gries   (Student Union Building: Ballroom A)

8:30 AM Zhang, He, Gertz	LEEASP: A Linked Environment of Coordinated Multiple Views for Exploratory Analysis of Large-Scale Species Distribution Data
8:45 AM Servilla, Costa, Laney, San Gil, Brunt	The EcoTrends Web Portal: An Architecture for Data Discovery and Exploration
9:00 AM Porter, Smith	Live from the Field: Managing Live-Image Databases at the Virginia Coast Reserve
9:15 AM Cushing, Kaplan, Laney, Mallett, Ramsey, Vanderbilt, Zeman, Gao, Kruger, Leroy, Milchunas, Muldavin	Integrating Ecological Data: Notes from the Grasslands ANPP Data Integration Project
9:30 AM Vanderbilt, Blankman, Guo, He, Li, Lin, Lu, Ko, Burke, Ogawa, Ó Tuama, Schentz, Su, van der Werf	Building an Information Management System for Global Data Sharing: A Strategy for the International Long Term Ecological Research (ILTER) Network
9:45 AM Kennedy, Remillard, Henshaw, Duncan, Bond	Converting data to information: Coupling lab-level database functionality with primary LTER data archiving systems
10:00 AM Questions + Discussion	

10:15 - 10:45 AM BREAK

Keynote Address: Tony Beasley, National Ecological Observatory Network (NEON)

10:45 -11:45 AM	NEON: Project Status & Technical Developments

11:45 - 1:00 PM **LUNCH**

Thursday (continued)

Panel Discussion	Moderator: Mark Schildhauer (Student Union Building: Ballroom A)
1:00 - 2:30 PM	Achieving global, cross-institutional interoperability of ecological and environmental data and metadata systems

2:30 - 2:45 PM BREAK

Quality Assurance Systems	Moderator: Bruce Wilson (Student Union Building: Ballroom A)
2:45 PM Brown	Challenges of AVHRR Vegetation Data for Real Time Applications
3:00 PM Sears	An Overview of Quality Control Procedures for Buoy Data at the National Oceanic and Atmospheric Administration's (NOAA) National Data Buoy Center (NDBC).
3:15 PM Sheldon	Dynamic, Rule-based Quality Control Framework for Real-time Sensor Data
3:30 PM O'Brien, Harrer	Processing and quality control of kelp forest community survey data
3:45 PM Langman, Hanson, Carpenter, Chiu, Hu	Detecting sensor failures in ecological sensor networks,
4:00 PM Hu, Babin	Range Checks of Coastal Environmental Monitoring Data
4:15 PM Questions + Discussion	
4:30 PM **Concluding remarks**	Jones and Gries

List of Posters

133	Agarwal, Beach, Ibarra	Architectural and Functional Requirements for an Environmental Sensor Network Computing Platform for Terrestrial Biological Research Stations and Ecological Observatories
139	Baker, Kaplan, San Gil, O'Brien, Florence Millerand	LTER Information Managers: A Community of Practice
132	Balsiger, Benson, Maxted, Winslow	Recent Information Management System Enhancements at the North Temperate Lakes LTER
124	Berkley, Bowers, Jones, Schildhauer	Improving metadata search efficiency by enabling semantic queries
140	Bezalel	Environmental Data Upload and Visualization Tools
136	Crawl, Cornillon, Altintas, Potter, Gallagher, Schildhauer, Jones	An Integrated Framework for Hybrid and Adaptive Modeling of Sea Surface Temperature: A Workflow-Based Approach to Comparison
144	Curran, Kearsley	Electronic Collection of Vegetation Mapping Data within the Grand Canyon National Park
148	Cushing, Kaplan, Laney, LeRoy, Mallett, Ramsey, Vanderbilt, Zeman	Cross-Site Analysis of Abiotic Drivers and ANPP at Five Grasslands Sites
149	Cushing, Mallett, Zeman, Kaplan, Laney, Ramsey, Vanderbilt	Problems and Solutions in Species-Coded Data: Best Practices and Common Issues
141	Daigle, Jones, Leinfelder, Walbridge, Tao	Simplified deployment of the Metacat data and metadata system
123	Hersh, Maidment	Managing Information for Environmental Flows in Texas
	Hutchison	USGS NBII Releases Re-Designed Interface for Metadata Clearinghouse
128	Kaplan, Vanderbilt, Zeman, Cushing, Laney, Mallett, Ramsey, Gao, Kruger, LeRoy, Milchunas, Muldavin	A Team Approach to Data Synthesis: The Playbook for Creating a Centralized, Dynamic, and Sustainable ANPP Database
138	Kortz, Conners, Baker	Abstracting Functionality and Access: Facilitating Data System Manageability and Site Coordination
41	Mellor	North of Ireland Coastal Monitoring Programme - QA for an operational network of moored oceanographic instruments

List of Posters (Con't)

127 William Michener, Suzie Allard, Paul Allen, Peter Buneman, Randy Butler, John Cobb, Robert Cook, Patricia Cruse, Bruce Dancik, Ewa Deelman, David DeRoure, Mindy Destro, Cliff Duke, Charles Fox, Mike Frame, Stephanie Hampton, Carole Goble, Nancy Grimm, Donald Hobern, Peter Honeyman, Jeffery Horsburgh, Vivian Hutchison, Matthew Jones, Steve Kelling, Jeremy Kranowitz, John Kunze, Hilmar Lapp, David Leslie, Jr., Bertram Ludaescher, Thomas Moritz, Lorraine Normore, Robert Peet, Ricardo Pereira, Line Pouchard, Jim Reichman, Hannu Saarenmaa, Robert Sandusky, Ryan Scherle, Mark Schildhauer, Mark Servilla, Kathleen Smith, Carol Tenopir, Paul Uhlir, Dave Vieglais, Todd Vision, Jake

Building the Framework for a Virtual Data Center for Ecology and the Environmental Sciences

List of Posters (Con't)

135	Porter	Implementing an Automated Processing System for Low-Frequency Streaming Data Using an Eclectic Approach
143	Rentmeester	A Framework for Defining and Enforcing Multiple Validation Environments (i.e. Protocols) within Aquatic Ecology
147	Schultz, Jones, McPhilliips, Riddle, Welker	Promoting Community Contributions with Highly Configurable Component Based Software, A Kepler Architecture
130	Tao, Jones, Vieglais, Rajasekar, Gilbert, Leinfelder	EarthGrid Web Services for Accessing Heterogeneous Data Systems
126	Valentine	Integrating Google Earth and Internet Mapping into Your Website
142	Walbridge, Schildhauer, Regetz, Jones, Reeves	Web-based collaboration in an ecology think-tank
137	Yarmey, Baker	Information Infrastructure: Emergent Roles, Responsibilities and Practices