

*Leslie Armstrong
Tennille Williams*

Report on the ESRI International User Conference 2004

THE 2004 ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI) annual international user conference was held August 9–13 in San Diego, California. Over 12,000 ESRI users attended the conference to learn about new software and technology. This year's conference focused on the "language of geography." In the opening address, Jack Dangermond, president and founder of ESRI, said, "It is possible for us to have a conversation in GIS. This language of geography is helping us to expand our understanding about the world and imagine and create a better future. As our world becomes increasingly complex, advances in science and technology are helping us to address the issues of the world. GIS is promoting better understanding and more collaboration. It is a language for communicating ideas, conceptualizing, and working out agreements."

While geography is the study of the Earth and its features, and of the distribution of life on Earth, including human life and the effects of human activity, GIS is the language that integrates information, work flows, disciplines, and plans to build a common understanding. As GIS evolves into multi-user environments and becomes more distributed, it is also becoming easier to integrate into various projects. Dangermond proposes that there are five main components of geographic knowledge: (1) maps and globes, (2) geodata sets, (3) data models, (4) work flow models, and (5) metadata.

The conference keynote address was

given by Rita Colwell, the marine microbiologist and internationally renowned epidemiologist. Colwell uses the spatial analysis capabilities of GIS to understand cholera outbreaks plaguing the people of Bangladesh. By examining relationships between weather, sea temperature, microscopic organisms, and the living patterns of people she was able to devise a simple solution to reduce seasonal cholera outbreaks by nearly 50 percent. Her 25 years of work in Bangladesh has not come without obstacles, but by using the language of geography, and the technology for modeling, sharing data, and GIS, she has been able to overcome many of them. This new form of epi-

demiology, merging health and geography through GIS, has proved beneficial.

The user conference would not be complete without the introduction of new GIS capabilities and services. ESRI's release of ArcGIS 9.0 brings improvements in geoprocessing, visualization, cartography, annotation, and raster imaging. Along with these improvements, ArcGIS extensions such as 3D Analyst, Maplex, Publisher, Spatial Analyst, Streetmap, and Data Interoperability offer the user greater potential. Dangermond states these tools are "not just eye candy. They include tools for advanced surface modeling and analysis, temporal mapping, and data transformation." For detailed product information, see www.esri.com.

ESRI is active in conserving world resources and ecosystems by providing GIS technology and support in many ways. The company constructs data sets such as global and country maps of sustainable environmental data and leverages the Durban Declaration on Sustainable Development to encourage data stewardship relationships and mainstream GIS into national mapping

efforts around the world.

Professor Willem Van Riet, chief executive officer of the Peace Parks Foundation, gave a presentation about transfrontier conservation areas, or TFCAs. The foundation assisted in the creation of parks and conservation land use options that cross international borders in order to preserve migratory paths and habitat for endangered wildlife of the southern region of Africa. In Korea, its efforts focus on a conservation plan for the demilitarized zone (DMZ), the border area separating the North and South. More information can be found at the foundation's website, www.peceparks.org.

ESRI is also making strides through the ESRI Conservation Program (ECP). This program has helped numerous non-profit organizations and individual projects worldwide with training and GIS capabilities. With different levels of grants and training scholarships available, ECP can help users make anything from rudimentary maps to reports using advanced GIS analysis. For more information, go to www.conservationgis.org.

Leslie Armstrong, Federal Geographic Data Committee, 590 National Center, Reston, Virginia 20192; larmstrong@usgs.gov

Tennille Williams, National Park Service, P.O. Box 25287, Denver, Colorado 80225-0287; tennille_williams@nps.gov