Tulane University's Museum of Natural History Receives \$1.2 Million Grant

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Tulane University"s Museum of Natural History has received a nearly \$1.2 million grant from the National Science Foundation to redesign a leading computer program it developed to help researchers around the world catalog natural history collections.

The program, known as GEOLocate, was developed in 2003 by Nelson Rios, manager of collections and informatics at Tulane"s Museum of Natural History. The GEOLocate program is now used by 800 researches and institutions worldwide and is considered a critical tool for computerizing data on natural history collections.

A computer programming and database expert, as well as a biologist, Rios developed the program as an aid for institutions as they began scanning text labels from older collections and placing them in computer databases. While the text labels included the state, county and general area where a specimen was found, they left out specific longitude and latitude data.

Using GEOLocate, a researcher can input the general label information on where a specimen was found such as "Mississippi River at Hwy. 190 Baton Rouge" and receive the precise longitude and latitude coordinates of its location.

Such information is critical in enabling researchers around the globe to study climate change, species migration, extinction patterns and threats to the animal kingdom, says Hank Bart, director of the Tulane Museum of Natural History.

"GEOLocate is really useful to museums that are digitizing their data. This is data that is retrospective but can still be used to look into the future," Bart says.

The \$1.2 million funding continues a history of support for a computer program that has proven indispensable for many natural history collections worldwide.

"This is our fourth grant from the National Science Foundation and our fifth grant overall for GEOLocate," Rios says. "This grant revolves around a complete redesign of the program based on web services, online mapping and integration with other natural history software applications."

Previous grants have enabled Tulane"s GEOLocate system to partner with the Global Biodiversity Information Facility, an international organization that focuses on making scientific data on the earth"s millions of biological species available via the Internet in a multitude of languages.

"We now have a flexible architecture that can be modified to support virtually any language," Rios says of GEOLocate.

The \$1,134,058.00 in funding, the exact amount of the GEOLocate grant, was provided through American Recovery and Reinvestment Act of 2009, the economic stimulus package enacted by Congress in February 2009.