Advances in Imaging Capabilities in Entomology

Imaging specimens is rapidly becoming an integral part of normal collections management activities, and many departments are actively investing resources to upgrade and expand their imaging and digitization capabilities. Recently, the Department of Entomology has been making significant steps forward in terms of improving the number, quality and types of imaging systems available for collections use by its staff, interns, volunteers, contractors and visitors. This year alone, three older imaging systems were upgraded with new computers, new cameras and new software. In addition, two new macrophotography systems are also being added to an ever-growing suite of existing Microptics, GT Vision and Automontage systems, most of which were previously dedicated for research project support.

One of the most exciting new systems is a state-of-the-art remote-microscopy system, custom-designed and recently installed at NMNH. This project was made possible through a team of collaborators from NMNH, OCIO and the International Institute for Species Exploration at Arizona State University, which worked together to plan and to customize the system for NMNH while ensuring compliance with SI computer and network safety standards. Although not yet available to the public, this system will allow users to remotely examine a specimen, thereby reducing risk of damage during shipment for primary types and other irreplaceable specimens. Provided that they have stable Internet access, users will be able to connect directly from anywhere in the world to a dedicated computer allowing them to operate a motorized copy stand with a digital camera for taking pictures and a robotic stage that allows for complete 360° manipulation of specimens in three-dimensional space. This system joins a small network of identical sister systems installed at Arizona State, the British Museum in London and the Muséum national d'Histoire naturelle in Paris.

Interested to learn more? Please contact Entomology's Floyd Shockley (ShockleyF@si.edu, 3-0982).

Update on Computer Replacement Program

The Smithsonian has a program in place to replace staff's primary work computers, typically on a four-year cycle. Known as the Periodic Desktop Hardware Replacement Program, or PDHRP, the 2013 cycle was initially scoped to replace about 1,500 computers across the Institution, of which 200 or so reside at NHB and MSC. Current federal budget uncertainty has slowed the program this year, though OCIO has been able to fund the replacement of about one-third of the listed computers, with about 100 of NMNH's listed computers expected to be replaced at current funding levels. Time will tell if the full program is funded this year. Stay tuned!

Upcoming: Collection Level Index in EMu

Some sections of NMNH's largest collections will not be cataloged as individual specimens in the foreseeable future. Still, it is desirable to create digital records representing these large holdings, and new EMU functionality is coming that will address this need. While the U.S. National Entomological Collection has outstanding needs in this regard, new Collection Level Index (CLI) functionality in EMu will soon be in place for all extant biological Departments (Botany, Entomology, Invertebrate Zoology and Vertebrate Zoology).

There will be two components of the EMu CLI. First, functionality is being added to the EMu Catalog module to allow entry of records representing multi-specimen lots of the same taxon, as often held in storage cases of general collections. When a Catalog record is entered as a Taxonomic Lot – in the place of a single Collection Event record with collection details – it will be possible to add multiple geographic distribution terms for the lot, by Country/State, Ocean/Sea, or Biogeographic Region.

Second, the new Collection Level Index module will maintain up-to-date summaries of museum holdings by taxon, across both typical Specimen Catalog records and the new Taxonomic Lot Catalog records. The Collection Index records will include summaries of all geographic distribution terms, counts and type status, and will show links back to constituent Catalog records. Searching and reporting across large swaths of the collections will be enhanced, including across multiple departments. This will aid in quickly addressing broad collection management and research questions.

Schedule of Upcoming EMu Training Announced

This year's EMu training classes have been scheduled. The next classes will be offered on Wednesday, March 6, with *Intro to EMu* in the morning, and *EMu Methods and Tools* in the afternoon. The next *TM in EMu* class will be Thursday, March 7, from 9 a.m. – 4 p.m. Classes are scheduled quarterly, with additional upcoming dates of June 5-6, September 4-5 and December 4-5.

All classes are held in NMNH's Computer Lab for Learning (CE-G29), located on the ground floor of NHB's East Court, with space for up to 16 students per class.

To reserve a class slot, please email your name, department and class choice to InformaticsHelp@si.edu. For more details on the training schedule and future classes, please visit the Informatics Training page, located on Darwin: http://darwin.si.edu/about/Pages/informaticstraining.aspx.