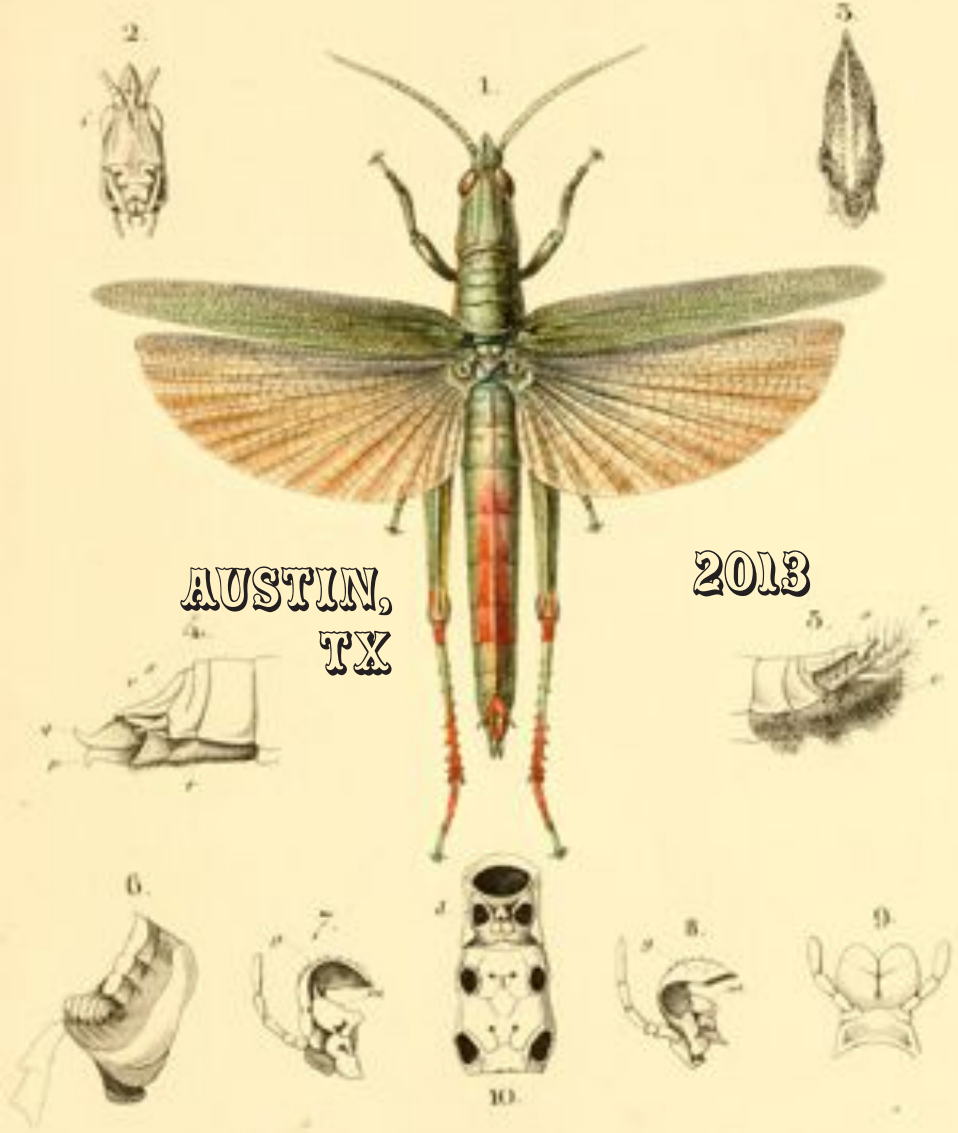
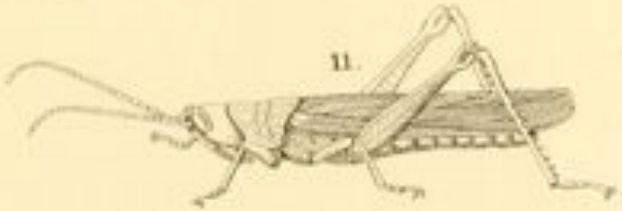
ENTOMOLOGICAL COLLECTIONS NETWORK



AUSTIN, TX

2013

Saturday, November 9 - Sunday, November 10, 2013



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ENTOMOLOGICAL COLLECTIONS NETWORK ANNUAL MEETING

Saturday, November 9 - Sunday, November 10, 2013
Austin Convention Center, Ballroom E
Austin, Texas

Saturday, November 9, 2013
Austin Convention Center, Ballroom E

7:00 – 8:30 am **Registration and Coffee**

8:30 am **Welcome and Announcements**

SESSION 1

Moderator: Floyd Shockley

8:40 – 9:00 am **Deactivation of Collections at the USNM**

David Furth and Floyd Shockley

Smithsonian Institution, National Museum of Natural History, Washington, D.C.

We will discuss the effects of relatively recent decreasing collections support staff in the Department of Entomology at the National Museum of Natural History (Smithsonian Institution) that has caused us to have to deactivate over 10% of the USNM Entomology collections. This means that we can no longer process loans to the scientific community in many families of Coleoptera and Diptera as well as for 12 entire orders. We will also comment about potential future deactivations that may occur in the relatively near future.

ORGANIZERS FOR THIS YEAR:

Pam Horsley - program & sponsors
Christy Bills - registration
Floyd Shockley - local arrangements
Katja Seltmann - booket & website

9:00 – 9:20 am **Stimulus, Indeed! Major Renovation of the Field Museum's Pinned Insect Collection Funded by ARRA**

Margaret Thayer

Field Museum of Natural History, Chicago, IL

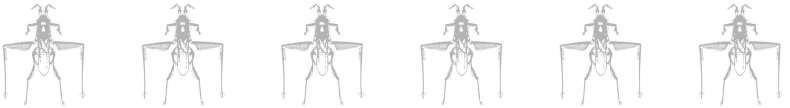
The US National Science Foundation (NSF) received funds from the American Recovery and Reinvestment Act (ARRA) that it allocated to development or improvement of academic research infrastructure (ARI). The funding was specifically aimed at improving facilities for research and research training. In 2009, staff in the Zoology Department's Divisions of Insects and Invertebrates submitted a $3M proposal to (1) create a new shared lab area for morphological study and imaging systems and (2) create expansion space for dry invertebrate collections by (3) installing a compactor system in existing Insects collection space and consolidating the pinned collections from the preceding two areas with those already in that space. The project was eventually funded at $2.8M after seemingly endless negotiations. Four arduous years after proposal submission, the work has been completed: we have moved equipment and people into a spacious new shared lab area, and both collections have greatly improved collection facilities.

9:20 – 9:40 am **Transitions and renewal at the Frost Entomological Museum (PSUC)**

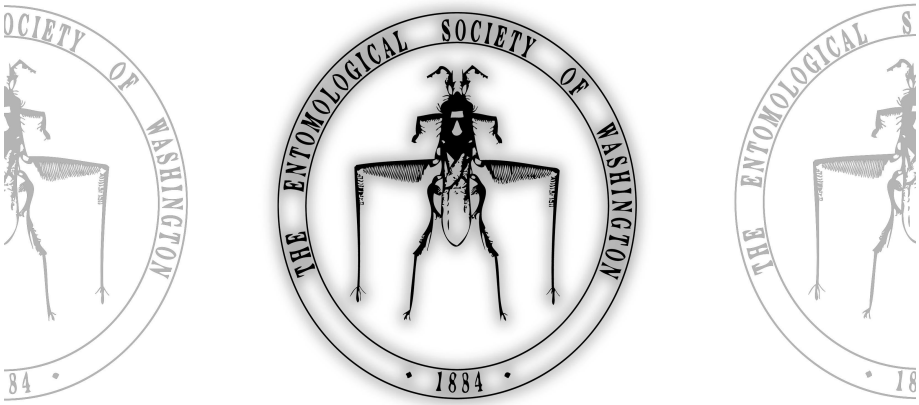
Andy Deans and István Mikó

Frost Entomological Museum, Department of Entomology, Pennsylvania State University, 501 ASI Building, University Park, PA 16802 USA

The Frost Entomological Museum at Penn State holds approximately two million specimens and is especially strong in sucking lice (Anoplura), dragonflies and damselflies (Odonata), aphids (Hemiptera: Aphididae), and insects of Pennsylvania. Recent investments by Penn State, including some renovation and the hiring of two systematists, ensure the long term health of the collection and secure its role as a resource for science, education, and outreach at Penn State. We discuss these recent changes and provide insights into the future directions of the Museum.



The Entomological Society of Washington was founded in the nation's capital in 1884. As a founding member, C.V. Riley held the first meeting in his home, and was the Society's first President. Publishing the *Proceedings of the Entomological Society of Washington*, the Society has served the DC Metropolitan entomological community continuously since 1886.



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- A subscription to the *Proceedings*
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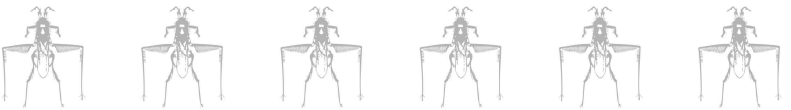
- The ESW newsletter
- Invitations to special events

Information is always available online at www.entsocwash.org.

Regular meetings of the Society are held in the Natural History Building, Smithsonian Institution, on the first Thursday of each month from October to June, inclusive, at 7 P.M. Our Annual Meeting is in December and our Annual Banquet is in June.



9:40 – 10:00 am **Evaluating Natural History Collections Use in One University Museum**

Bethany Abrahamson

Department of Biology, Museum of Southwestern Biology, University of New Mexico,1 University Blvd NE Albuquerque, NM 87131

Specimens preserved in natural history collections (NHCs) provide a wealth of knowledge for researchers, and it is predicted that the value of NHCs will continue to increase over time. This study, focusing on the collections held by the Museum of Southwestern Biology (including the Arthropods collection), analyzes a variety of metrics to determine how NHCs have been used in scientific studies over time. A form of analysis which can show NHC utilization in a quantitative manner could prove extremely useful in illustrating NHC importance to the scientific community and beyond.

10:00 – 10:25 am **Coffee Break**

SESSION 2

Moderator: Katja Seltmann

10:25 – 10:45 am **Importing and Exporting entomological specimens to and from the U.S.**

Senior Special Agent Frank Solis

U.S. Fish and Wildlife Service, Office of Law Enforcement, 1874 Grandstand Dr., San Antonio, Texas 78238

Frank Solis, Senior Special Agent with the U.S. Fish and Wildlife Service is currently stationed in San Antonio, Texas. With over 18 years working with the Office of Law Enforcement, he has assisted in numerous investigations in the illicit wildlife trade resulting in the prosecution of various individuals and entities. In addition, Frank has developed contacts with industry and various institutions fostering the legal wildlife trade. He will briefly describe the process to properly import or export specimens to and from the U.S. and provide advice on interacting with the FWS and pinpoint the regulations that matter the most.

10:45 – 11:05 am **International Whole-drawer Digitization Interest Group, A Report of Activities**

Gil Nelson (iDigBio), Nicole Fisher (*Australian National Insect Collection*), Matthew Buffington (*Systematic Entomology Laboratory, National Museum of Natural History*), Vladimir Blagoderov (*Natural History Museum, London*), Andy Deans (*Frost Entomological Museum at Penn State*), Chris Dietrich (*InvertNet, Illinois Natural History Survey*), David Raila (*InvertNet, University of Illinois, Computer Sciences*), Paul Flemons (*Australian Museum*), Jeff Holland (*InvertNet, Purdue University*), Roy Larimer (*Visionary Digital*), Joanna McCaffrey (*iDigBio*), Joost van Leusen (*Naturalis Biodiversity Center*), Stefan Schmidt (*Zoologische Staatssammlung München*), Bernhard Schurian (*Museum fuer Naturkunde, Berlin*), Jennifer Thomas (*University of Kansas, Biodiversity Institute, Entomology*), Geoff Thompson (*Queensland Museum*), Gretchen Wilbrandt (*University of Minnesota*), Jennifer Zaspel (*InvertNet, Purdue University*), Ann Molineux (*The University of Texas at Austin*), Vince Smith (*Natural History Museum, London*)

Integrated Digitized Biocollections (iDigBio) and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) have partnered to launch the International Whole-drawer Digitization Interest Group (https://www.idigbio.org/wiki/index.php/Drawer_Imaging_Group), with representatives from museums and academic institutions in Australia, Germany, The Netherlands, the United Kingdom, and the United States to explore processes, strategies, and issues related to whole-drawer digitization, including imaging and data capture, of pinned insect drawers. The group is building a repository of related papers, protocols, documents, and materials, all of which are posted to the wiki for public consumption. Interest group meetings have produced a number of interesting strategies for imaging and data capture, as well as an assortment of issues. This presentation will outline the activities of the interest group, including how to become involved, and highlight the group's deliberations related to varying strategies for:

- Whole-drawer imaging, including workflows, cameras, and other imaging equipment,
- Drawer metadata,
- Image slicing and other techniques for individual specimen data capture,
- Soup or bulk sample imaging of unsorted specimens,
- Crowd-sourcing strategies for efficient data capture.

11:05 – 11:25 am

The Fossil Insect Collaborative Digitization Project

Dena M. Smith[1], Susan H. Butts[1], Alton Dooley[2], Michael S. Engel[3], Brian D. Farrell [4], David A. Grimaldi[5], Talia S. Karim[1], Sam W. Heads[6], and Christopher A. Norris[7]

[1]University of Colorado Museum of Natural History, CU Boulder, Boulder, CO, 80039; [1]Yale Peabody Museum, 170 Whitney Avenue, PO Box 208118, New Haven, CT 06520-8118; [2]Virginia Museum of Natural History, 21 Starling Avenue, Martinsville, VA 24112; [3]Biodiversity Institute, University of Kansas, 1501 Crestline Drive, Suite 140, Lawrence, KS 66045-4401; [4]Museum of Comparative Zoology, Harvard University, 26 Oxford Street, Cambridge, MA 02138; [5]American Museum of Natural History, Central Park West at 79th Street, New York, NY 10024-5192; [7]Illinois Natural History Survey, Forbes Building, 1816 S. Oak Street, MC-652, Champaign, IL 61820; [8]Yale Peabody Museum, 170 Whitney Avenue, PO Box 208118, New Haven, CT 06520-8118

Fossil insects provide a unique deep-time record of ecological and evolutionary response to past environmental changes and therefore are invaluable for understanding current biodiversity and the impacts of climate change. Seven major public institutions and two federal collaborating institutions currently make up the project team with the potential for additional institutions to join in the future. This project received four years of support as part of the National Resource for Digitization of Biological Collections through the Advancing Digitization of Biological Collections program. The central goal of the Fossil Insect Collaborative includes making available all the major collections of fossil insect specimens in the United States by creating electronic specimen records consisting of digital images and associated collection data. Dissemination of images and project data will be achieved through the project website <fossilinsects.colorado.edu> and the development of a centralized hub called iDigPaleo, which will be used to aggregate specimen data and serve them to iDigBio and directly to the public. iDigPaleo is being designed so that it will be available to aggregate and distribute collections data from other paleontological collections as well. A novel feature of iDigPaleo will be the incorporation of social networking tools to enable users to interact directly with the project dataset for a wide variety of purposes. Online access to specimens, their metadata and associated images, in combination with the collaborative tools that will be developed as part of the iDigPaleo hub will further enhance accessibility, international collaboration and create the opportunity for new synergies between the biological and geological cyberinfrastructure communities.

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11:25 – 11:45 am **The structure of insect - plant host data as derived from museum collections: An analysis derived from the NSF-funded Tritrophic Database Thematic Collections Network (TTD-TCN)**

Randall T. Schuh, Katja Seltmann, and Christine Johnson

American Museum of Natural History, Division of Invertebrate Zoology, New York, NY

Data on insect-plant associations is contained in entomological collections, where some proportion of specimens bear labels with plant names. Essentially no plant specimens bear the names of the insects that are associated with them; thus, all such data come from insect collections. The NSF-funded TDD-TCN and the Plant Bug Planetary Biodiversity Inventory projects have accumulated more than 700,000 specimen records, most of which pertain to phytophagous species. To quantify the amount of host data available in these records, and evaluate data quality and reliability, we developed a decision-tree algorithm as a way of analyzing this very large dataset. Results from the application of that algorithm for the family groups Miridae, Membracidae, and Aphidoidea are presented and compared. Suggestions are offered on how to best capture such data, how to improve on data quality in the future, and the uses such data can be put to.

11:45 am – 1:15 pm **LUNCH**

SESSION 3

Moderator: Andrew Smith

1:15 – 1:35 pm **The Good, Bad and the Ugly of CONABIO and BIOTICA: Mexico's Biodiversity Database**

Robert W. Jones

Coordinador del Posgrado en Recursos Bióticos-Maestría, Facultad de Ciencias Naturales, Universidad Autónoma de Querétaro, Mexico

The Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO), presently 21 years old, is Mexico's federal commission in charge of the study, funding and repository for the information of the biodiversity of Mexico. I will present a brief introduction of CONABIO and the trials and tribulations of using its database program, BIOTICA. I will also talk briefly about collection permits and present status of insect collections in Mexico.

1:35 – 1:55 pm **An Introduction to the new Specify 6 Web Portal (SEMC is back on the Web!)**

Jennifer C. Thomas

Assistant Collection Manager, Division of Entomology, KU Biodiversity Institute

Specify 6 now has web portal functionality for public access to specimen data and images. The Web Portal provides full-text indexed searches, multi-field queries constructed with and/or logic, and floating detail popup windows for instant access to complete specimen data records. Additional Demo: A prerequisite for serving species data on the web is the laborious task of adding new records to a database. The Specify 6 Workbench component is a simple, streamlined mechanism for absorbing large amounts of data into a database. The workbench mapping tool allows users to map spreadsheet columns to existing fields in their data model. Users can visualize, edit, correct, and/or augment the data before finally uploading all the records to their database en masse.

1:55 – 2:15 pm **Canadian National Collection databasing**

Dicky Sick Ki Yu

Government of Canada, Agriculture and Agri-Food Canada, Ottawa, ON, Canada

The Canadian National Collection of Insects, Arachnids and Nematodes is located in Ottawa, Canada, with approximately 16 million specimens in 1400 steel cabinets. Renovation is now underway, and over half of the collection is now stored in compactible cabinets. A unified electronic databasing is started last year and progressing steadily. A number of challenges we faced are discussed and the progress we have made so far is presented.

2:15 – 2:35 pm **Everything you wanted to know about the Australian fauna: the on-line Australian Fauna Directory**

Andy Austin[1], Alice Wells[2] and Christy Geromboux[2]

[1]Australian Centre for Evolutionary Biology & Biodiversity, School of Earth & Environmental Sciences, The University of Adelaide, Adelaide, South Australia 5005 (andy.austin@adelaide.edu.au); [2]Australian Biological Resources Study, Department of Sustainability, Environment, Water, Population & Communities, Canberra, Australian Capital Territory (alice.wells@environment.gov.au;christy.geromboux@environment.gov.au)

Very few, if any, countries have a complete inventory of their terrestrial,

freshwater and marine faunas, and certainly none that has a biodiversity approaching that of continental Australia. The Australian Faunal Directory (AFD) has been in development by Australian Biological Resources Study (ABRS) and the taxonomic community for 20+ years but a recent injection of funds from the Atlas of Living Australia (ALA) has seen this on-line resource approach completion to include all valid species known at 2012-13. This has involved a huge cooperative effort on the part of many taxonomists, plus ABRS staff, who have updated groups through a controlled-access on-line editor. The AFD comprises a catalogue of taxonomic and biological information on all animal species known to occur within Australia, along with distributional information and images for many groups and a detailed bibliography. Currently it comprises 115,110 species in 26,950 genera and 4,032 families (7,535 species in 438 families of arachnids; 67,296 species in 731 families for hexapods). Having brought the AFD to this point provides an invaluable resource for use in systematics research, agriculture, biosecurity and conservation biology. The challenge now is to manage the Directory and keep it up-to-date.
AFD: www.environment.gov.au/biodiversity/abrs/online-resources/fauna/afd/
ALA: www.ala.org.au/

2:35 – 2:40 pm **Recent changes to The Entomological Collections Network**

Katja Seltmann, Pamela Horsley, Floyd Shockley, and Christy Bills

Entomological Collections Network Officers

2:40 – 3:05 pm **Coffee Break**

SESSION 4

Moderator: Andrew Smith

3:05 – 3:25 pm **Notes from Nature - online citizen science digitization of collection data**

Peter Oboyski

Essig Museum of Entomology - UC Berkeley

The CalBug ADBC digitization project teamed up with the Zooniverse citizen science initiative to launch “Notes from Nature” in May 2013. CalBug

is a consortium of the eight largest California collections of Arthropods. Zooniverse is home to over 20 citizen science projects ranging from Space to Climate to Biology with over 800,000 participants. Notes from Nature asks citizen scientists to transcribe data from specimen labels of arthropods, plants, birds, and fungi using an online transcription tool. In less than a half year over 4000 citizen scientists have signed on to create over 300,000 transcriptions. The greatest challenges to implementing this project have been generating images quickly enough to feed the transcribers, generating and maintaining interest, and processing the data from transcriptions for repatriation into the CalBug database.

3:25 – 3:45 pm **The long history and current digitization of the University of Hawaii Insect Museum**

Daniel Rubinoff and Ryan Caesar

The University of Hawaii, Department of Plant and Environmental Protection Sciences

The University of Hawaii Insect Museum was founded at the same time as the University of Hawaii over 100 years ago. The collection contains approximately 250,000 specimens, almost exclusively focused on the Hawaiian Islands. There are many rare endemic and invasive species in the collection, including perhaps the best Hawaiian Drosophila collection in the world. The holdings of the Museum will be summarized and an ongoing digitization effort for every specimen in the collection has begun. The implications of this digitization will be discussed.

3:45 – 4:05 pm **Digitization of the Illinois Natural History Survey insect collection**

Dmitry A. Dmitriev

Illinois Natural History Survey

The INHS insect collection is one of the largest and most important repositories in the United States. In addition to the collection's strong and comprehensive holdings of Illinois insects, material on several insect orders is global in geographic scope (stoneflies, mayflies, caddisflies, aphids, mirids, leafhoppers, thrips, some groups of beetles, bees, wasps, and flies), reflecting the wide variety of taxonomic expertise and research areas of INHS and University of Illinois entomologists. The collection is particularly rich in material gathered during the first two-thirds of the twentieth century. The oldest specimens in the collection are dated 1851. In addition to material gathered by the staff, several collections have been given to or acquired by the Survey. In 1958, the insect collection

contained about 2,000,000 specimens, but today houses more than 7,000,000 specimens, including about 14,000 types (specimens upon which new species descriptions have been based). Recently the collection received several NSF grants for digitization projects. As a result, about 1,800,000 specimens are now included in the Insect Collection Database, which is available for search online from the INHS web site. The data from the database are also shared with the Global Biodiversity Information Facility (GBIF).

4:05 – 4:25 pm **Rapid, industrial scale digitization of the microscope slide collection at the Natural History Museum, London**

Benjamin Price and Vladimir Blagoderov

Department of Life Sciences, Natural History Museum, London, UK

In the biodiversity information world providing remote access to the specimen level information associated with the collections housed in Natural History Museums is paramount. The microscope slide collection at the NHM comprises an estimated 2-10 million slides from disparate fields such as Botany, Entomology, Mineralogy, Palaeontology, and Zoology. While microscope slides represent a unique challenge in digitization initiatives, their essentially 2D design provides avenues for bulk imaging techniques that are not available to pinned or ethanol preserved material. By comparing a combination of imaging solutions, ranging from inexpensive document scanners to highly advanced robotic imaging platforms, in combination with open source image post-processing techniques this talk will elucidate the lessons learnt from our collections and the potential for rapid digitization of slides.

4:25 – 4:45 pm **Need for molecular storage collections facilities to keep abreast of modern taxonomic methods**

Erica McAlister

Department of Life Sciences, Natural History Museum, London, UK

Tradition morphological taxonomy been has the mainstream for specimen identification for hundreds of years, and is one of the raisons d'être for collections all over the world. Specimens have been donated or have been brought back from fieldtrips and subsequently stored in museums in all manner of housing (some more suitable than others). Along with the pinned and slide collections, we have been storing much of the material in spirit of many different varieties. However, nowadays we are relying more and more on molecular techniques to determine some of

the more complex relationships and split species groups. Therefore the storage of spirit material has to be very specific to ensure that the DNA does not degrade. As well as developing techniques to enable us to do this we need to ensure that effective collection management procedures and storage facilities keep up with new, and often fast paced changes. This talk will document both the issues and the procedures that the NHM has undertaken in relation to collecting and storage of entomological material for future extraction of DNA.

4:45 – 5:05 pm **Mission Possible? The Modern Role of Insect Collections in Land Grant Universities**

Jason J. Dombroskie and James K. Liebherr

Cornell University Insect Collection (CUIC), Cornell University, Department of Entomology, Ithaca, NY 14853-2601 USA

Insect collections in most land grant universities started primarily with an agricultural focus, though this role expanded to include support of basic taxonomic research and the incorporation of scientifically important specimens. More recently outreach programming aimed at the general public has been added to the mission. A key role that we must not lose sight of is our responsibility to train students, including the deposition of their research vouchers. We need to continue to emphasize this archival role to administrators, as it is the basis for research accountability. Our outreach role should provide the backbone for a solid diagnostic lab used by the general public and government. While modern funding programs have focused on documenting biodiversity changes over time through digitization, we must not lose sight of our original missions. We must also become more efficient with current levels of funding while addressing our growing taxonomic impediment.

5:05 pm **Session Discussion & Announcements**

ECN MIXER

6:00 – 9:00 pm

Austin Convention Center, Ballroom F

Sunday, November 10, 2013
Austin Convention Center, Ballroom E

8:00 – 8:05 am **Welcome and Announcements**

SESSION 5

Moderator: Floyd Shockley

8:05 – 8:25 am **From Standards to Practice and Back Again. News from TDWG*: The Biodiversity Information Standards (TDWG) 2013 Conference - Virtual Communities for Biodiversity Science**

Deborah Paul

iDigInfo, iDigBio

From their website: “Biodiversity Information Standards (TDWG), also known as the Taxonomic Databases Working Group, is a not for profit, volunteer organization,…formed to establish international collaboration among biological database projects.” Currently, TDWG focuses on the development of standards for the exchange of biological/biodiversity data. Whether you already know about BIS (TDWG) or have never heard them, this is your opportunity to find out what TDWG is working on now. Come find out about the recent symposiums and workshops (October 2013), some of which are: Biodiversity Data Quality, Crowd-sourcing Websites and their Communities, Biodiversity informatics services and workflows, Beyond Darwin Core, Biodiversity Observation Networks, Documenting the Darwin Core, e-Collaboration for Sustainability, Mobilizing African Biodiversity, and Sharing and Delivery of Reusable Phylogenetic Knowledge. What does the work of TDWG offer to the collections community? How is it relevant to ECN? How can the collections community work with TDWG? Please join in the conversation.

8:25 – 8:45 am **Electronic publishing of new names**

Frank-Thorsten Krell

ICZN & Denver Museum of Nature & Science, 2001 Colorado Blvd., Denver, CO 80205

Despite the increasing and now predominant role of the internet and electronic communication in everyday scientific work, until recently

nomenclatural information had to be published on paper. In 2012 The International Botanical Congress and the International Commission on Zoological Nomenclature decided to allow electronic-only publications for nomenclatural purposes. This opened up open-access journals for papers with nomenclatural content and provides taxonomists with the choice of the whole range of different types of journals, as long as they fulfill certain criteria. Because of the nature of nomenclatural information as semi-legal statements which have to be accessible in perpetuity, both botanists and zoologists came up with some restrictions that are supposed to ensure availability and permanency. Zoological works have to be widely accessible; issued for the permanent scientific record; have fixed content and layout (e.g. a protected PDF file); the date of publication must be stated in the work (paper) itself (not on some journal title page disassociated from the paper); the work must be registered in ZooBank, the Official Registry of Zoological Nomenclature, and contain evidence that such registration took place; the registration entry must indicate an organization other than the publisher that is intended to permanently archive the work as is; and the registration entry must contain ISBN or ISSN. If these criteria are fulfilled, off you go!

8:45 – 9:05 am **Getting collection data, maps, and images online via open source and commercial solutions**

Michael Giddens

Director of SilverBiology, Denver, CO

To date, SilverBiology has helped collection managers make available over half a million entomological occurrence records for online research. I will highlight how SilverBiology has helped collection managers, showcasing some of the online research portals roduced. Because images and maps are a vital part of scientific research presence on the web, I will cover some open source solutions for image management as well as interactive mapping using CartoDB. SilverBiology assists clients to make digital technology easy, so I will discuss a few common things to know about collection data, species checklists, integrating with iDigBio, GBIF and making use of other web services for the curator.

WANTED

VOLUNTEERS TO HELP ORGAINIZE ECN NEXT YEAR IN PORTLAND

9:05 – 9:25 am **Proceedings of the ESW: modernization of a century-old scientific journal**

Eugenio H. Nearns[1], MW Gates[2], ML Buffington[3], and K Schulz[4]

[1]National Museum of Natural History, Washington, DC 20013-7012 gino@nearns.com; [2]SEL/USDA, National Museum of Natural History, Washington, DC 20013-7012; [3]Entomological Society of Washington, Washington, DC 20013-7012; [4]Encyclopedia of Life, Smithsonian Institution, National Museum of Natural History, Washington, DC 20013-7012

The Proceedings of the Entomological Society of Washington (PESW) was first published in 1884. A series of efforts to modernize the 129-year-old scientific journal are discussed, including the creation of a new website, online membership database, and the ability to pay membership dues and page charges online via PayPal. Recent adoption of the Plazi workflow is also discussed. Adoption of this workflow will automate the dissemination of new taxonomic treatments published in the PESW to databases such as the Encyclopedia of Life and ZooBank. Finally, we review the ESW sponsored Student Award which was established to encourage students to submit manuscripts for a chance to win $3,000.

9:25 – 9:45 am **Coffee Break**

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Bernice DeMarco, Terry Erwin, Mike Ferro, Dave Furth, Christine Johnson, Jackie Miller, Alfred Newton, Diana Carolina Arias Penna, Margaret Thayer, Guanyang Zhang

SESSION 6

Moderator: Katja Seltmann

9:45 – 10:05 am **Nitty gritty of how a non-taxonomist (me/we) uses DNA barcoding and BOLD to curate name application (ID) and species discovery in a Costa Rican inventory of Lepidoptera, Tachinidae and parasitoid wasps**

Dan Janzen and Winnie Hallwachs

University of Pennsylvania, School of Arts and Sciences, Department of Biology

The nitty gritty mechanics of starting with a large batch of Costa Rican DNA barcoded specimens already databased in the field inventory, putting their information into BOLD at http://www.boldsystems.org, having it be analyzed there, getting the results, matching the results with the field database, iteratively upgrading all, re-submitting to BOLD, getting a new analysis, etc. And, in the process filtering out the contaminants, mis-IDs, suspiciously or obviously un-noticed cryptic (usually undescribed) species, interim labeling them, and then passing on chunks of this information to the collaborating taxonomist for final products, and museum deposition.

10:05 – 10:25 am **Building a DNA Barcode library of Alaska's nonmarine arthropods**

Derek S. Sikes and Casey Bickford

University of Alaska Museum, 907 Yukon Dr., Fairbanks, AK 99775

With funding from the United States Fish and Wildlife Service, the University of Alaska Museum Insect Collection (UAM) has been sending legs of 2-3 specimens per species that were recently collected (since 2002), and authoritatively identified, to the Canadian Centre for DNA Barcoding (CCDB). Because DNA barcode based identification has higher success rates when unknowns are queried against knowns from the same region, the goal is to create an Alaskan regional DNA barcode library. With over 8,000 species of nonmarine arthropods, and fewer than 2,000 species represented by specimens in the University of Alaska Museum, combined with the inherent failure rate of using older tissues with degraded DNA, it is hoped that this project will generate DNA barcodes for approximately 1,000 Alaskan species. As part of the DNA barcoding protocol all specimens are databased and photographed, thereby increasing the value of UAM's online database to users.

10:25 – 10:45 am **Biology Catalog**

Joel Hallan

Biology Catalog was started in 1989. Its initial purpose was to create a phylogenetic listing of the genera of zoology. The initial web site appeared in 1998. A new website that is searchable and can be edited was completed about a year ago. Species listing were created using the generic listings. The current group that is being created is the Chordata.

10:45 – 11:05 am **Making one of the world's oldest insect collections accessible!**

Suzanne Ryder

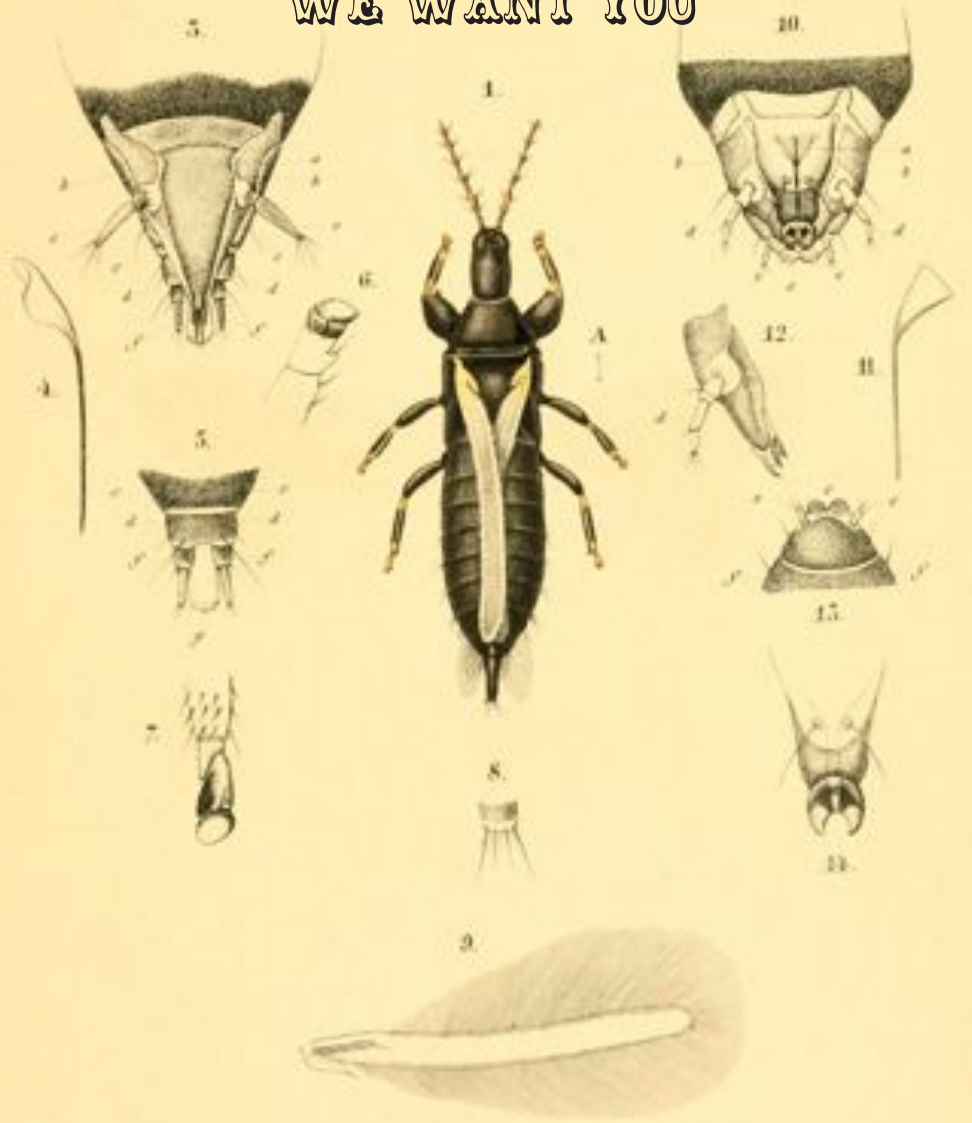
Collection Manager, Natural History Museum, London, UK

Within the 30 million insect specimens housed at the Natural History Museum, London there are two unique collections maintained separately and are designated as historic. These are the Sloane insect collection and the Banks insect collection. Sir Hans Sloane himself was an avid collector but he also acquired other collections to add to his own. A large part of the extant material comes from the James Petiver (1658-1716) and the Leonard Plukenet (1642-1706) collections. Sloane's collection exists in two parts; first, there are 18 glass topped shallow drawers, thought to be 18th insect specimens. The second part of the collection consists of three bound volumes, two of Petiver material where the specimens are sealed between two pieces of mica and then stuck onto paper sheets in a book and the third contains the Plukenet collection with specimens glued directly onto paper sheets bound as a book. This collection dates form 1629 and is thought to be the oldest complete insect collection. The importance of this collection cannot be over stated. It is a direct link with the foundation of the Natural History Museum, London, it is also a remnant of one of the great 18th cabinet of curiosities and the start of the age of enlightenment. Beyond cultural aspects the collection provides tangible evidence in the history of collecting. The collection also has a taxonomic significance as Linnaeus mentions the collection in his Systema Naturae. This amazing collection is in a very fragile state and consequently remains almost completely inaccessible as it is rarely used for fear of damage. The recognised historical, cultural and scientific importance has led to a reluctance to pursue any study or conservation. However, after much deliberation we have started a project to conserve these bound volumes with an aim to stop further deterioration and to make them accessible to all once again.

11:15 – 12:15 am **Buisness Meeting**

SUNDAY, 11:15 AM - 12:15 PM

WE WANT YOU



AT THE BUISNESS MEETING!