

Southwest Collections of Arthropods Network (SCAN) A Data Portal Built to Visualize, Manipulate, and Export Species Occurrences

July 2012 to July 2015









Symbiota Collections of Arthropods Network (SCAN) A Data Portal Built to Visualize, Manipulate, and Export Species Occurrences

July 2012 to 2020











SCAN Data Portal Home

SCAN Project Website

Search Collections

Map Search

Summary Statistics

Image Search

Image Browser

Faunistic Projects

Dynamic Checklist

Weevils of North America

Resources

Calendar

Symbiota

Symbiota Collections of Arthropods Network (SCAN): A Data Portal Built to Visualize, Manipulate, and Export Species Occurrences

911,078 specimens in database

776 families

8,960 genera

21,619 species

21 Collections

important features of all Symbiota databases include:

1. Easy web-based data entry.

- Download entire datasets in two clicks.
- 3. Map georeferenced records in two clicks.
- Upload high-resolution images & create species profile pages.
- Design custom species lists for any locality at multiple scales.
- 6. Develop educational games with data.
- 7. Create taxonomic keys.

The key organizational feature is that each museum or project is listed as a separate collection, so that one database group does not interfere with another. End users can select all "collections", or just a subset. We are incorporating Filtered Push to enhance the capacity of far-flung experts to contribute identifications and annotations of data that may be shared across the network.

rew 5,389,220 specimens in database

olle 1,450 families

an 20,025 genera

58,741 species

> 50 collections





Page Discussion

Keys to Navajo Ant Species

AntWiki

Navigation

Main page Recent changes Random page

About Antwiki Help

Topics

Species Accounts

Behaviour

Distribution & Diversity

Ant Societies

Morphology & Terminology

Biochemistry, Genetics, Development & Reproduction

Human Culture & Ants

People & History

Ecology

Table of Contents

Toolbox

Page Discussion

Read View source View his

Ants of the Navajo Reservation

From Antwiki - Bringing Ants to the World

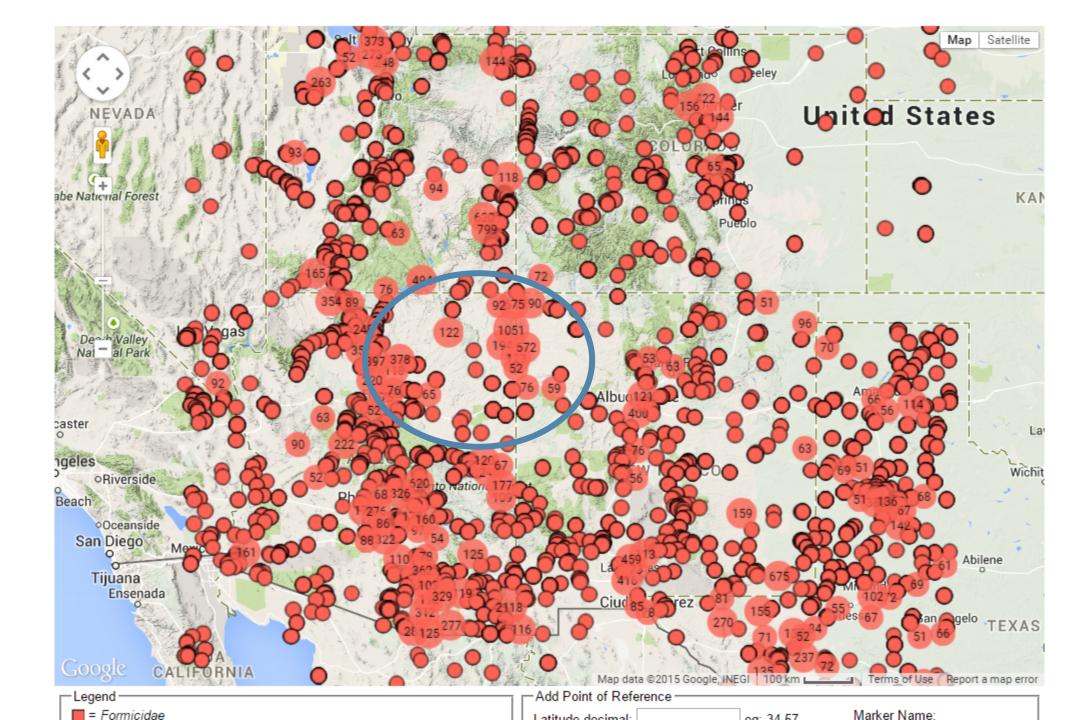
The Navajo Reservation covers more than 26,000 square miles, making it larger than 40 of the 50 states within the United States. Navajo land is located betwee low deserts of Arizona and New Mexico. This region includes a diverse range of habitats from high mountains at more than 10,000 feet, down into deep canyor River and lower elevation semi-arid deserts. The Navajo Ant Project is dedicated to the discovery of the ant biodiversity on this fascinating land and to integrating modern scientific method.

Ya'at'eeh (Hello).The Navajo Ant Project's [1] 🗗 goal is to integrate traditional Navajo cultural values with the modern scientific method as it explores the ant bic

The Navajo Ant Project is the first comprehensive scientific field study of the distribution and abundance of ants on Navajo Nation land. Harvard University colla ant identification, field work, insect photography and experimental design. They are collaborating with Navajo students and Navajo teaching staff to conduct and Special habitat areas of interest have been selected as field sites for the study of ant diversity. Different elevations, soil types and plant communities have been diverse number of ants. The Navajo ant research team will use the latest in Global Information System (GIS) technology and field collecting techniques to stud conservation of biodiversity.

We hope to motivate and encourage Navajo people to study and appreciate the diversity on their lands and to protect and to cherish these resources for future





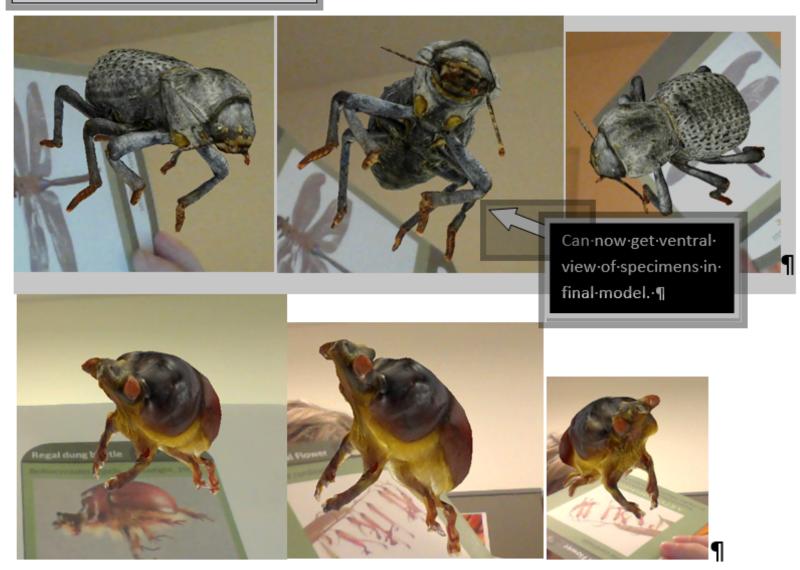
SCAN "Formal" Education Program

Melody Basham – Arizona State University

Collaborative initiative in the 3D digitization and development of specimen-based learning tools integrating augmented reality technology

Blue·Death-feigning·Beetle¶

Asbolus·verrucosus¶



Regal·dung·beetle·Bolbocerastes·regalis·¶



InvertEBase Data Portal Homepage

Search Collections

Map Search

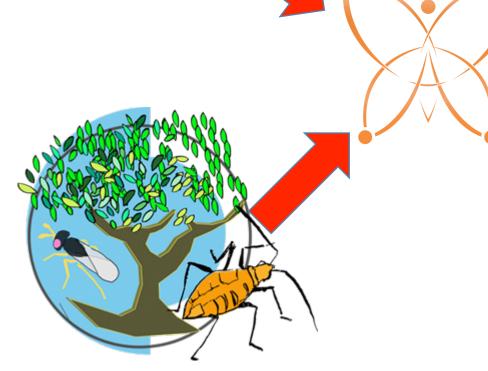
Dynamic Checklist

Image Library

Search Images

Welcome to InvertEBase: reaching back to see the future: spe causes and consequences of biodiversity shifts

The rapid biodiversity change in North America has significant effects on es health and nutrient cycling, to agriculture, forestry and water quality. Effective asy electronic access to historical specimen baseline information for temp which can facilitate informed land management decisions. Vast amounts of natural history collections, but most of these data are not yet readily accessing a 4-year collaborative effort to digitize specimen records from ten arthropomuseums in six stations are eof them ranking among the top 10 collections in Natural History (Collections in Natural History (Collections in Natural History (Collections in Natural History (Collections in Natural History (AUMNH, August 1) and the Natural History (Mindelpan Museum of Natural History (Mindelpan Museum of Zoology (Min



Tri-Trophic Thematic Collection Network



Digitized Collections











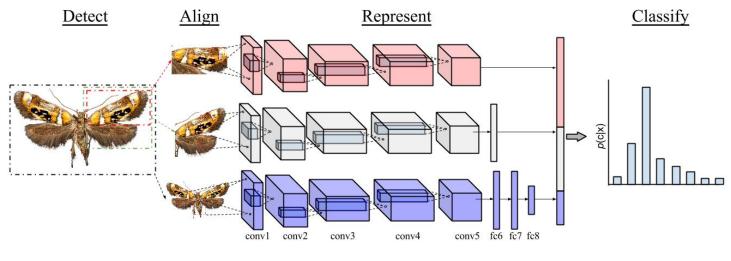


University of Wisconsin - Madison **University of Minnesota SCAN** and **LepNet** Collections Milwaukee Public Museum Chicago Field Museum South Dakota State University **Kansas State University** Colorado State University **Purdue University** Scarab Central **University of Colorado University of Alaska** Michigan State University Ohio State University University of Idaho **Oregon State University** University of Utah-**Brigham Young University** University of Hawaii **Dugway Proving Ground** -Harvard University University of Nevada - Reno —Yale University University of California - Davis **Kutztown University Utah Department of Agriculture** Drexel University Denver Museum of Nature and Science-**University of Delaware** Northern Arizona University Hymenoptera Institute **Arizona State University** Clemson University University of New Mexico University of Georgia Institution Name New Mexico State University SCAN TCN Member Institutions University of Florida LepNet TCN Member Institutions Texas Tech University University of Tennessee at Chattanooga Lead Institutions for LepNet TCN University of Missouri University of Oklahoma ➤ Home Institution for Symbiota Development Mississippi State University Universidad Autonoma de Queretaro Texas A&M University

LepSnap- Develop computer vision capacity to identify specimens from images. Museum specimens > Field images
Of the ~10,000 Lepidopteran species in US & Canada ~6,800 can be identified by museum/field images by humans (Visipedia, Serge Belongie)

Tiger Moths (Arctiinae)





Visipedia Project

Pursuit fishing

Aerial fishing



Scavenging

Raptorial

Filter feeding

	# species in NA	# Species imaged in MPG	# of "observable" Species
MacroLeps	6,000	5,355	3,749
MicroLeps	7,500	4,322	2,377
Butterflies	800	NA	680
TOTAL	14,300	9,677	6,806

CCUB NABirds 700 Dataset: Backyard Bird Edition

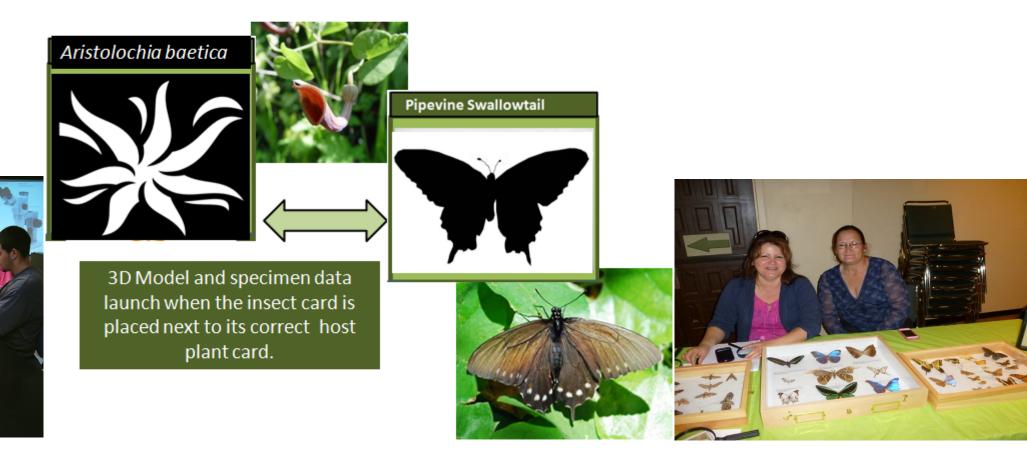


Try out a new dataset for fine-grained recognition, featuring 550 of North America's most common birds. The complete dataset will be available in the fall. Join in today by downloading the backyard bird edition, which includes full annotations for 80 visual categories!

CCUB NABirds 700 is a collection of 70,000 annotated photographs of the 550 species of birds that are commonly observed in North America. More than 900 photographs are available for each species, including separate annotations for males, females and juveniles that comprise 700 visual categories. This dataset is to be used for fine-grained visual categorization experiments.

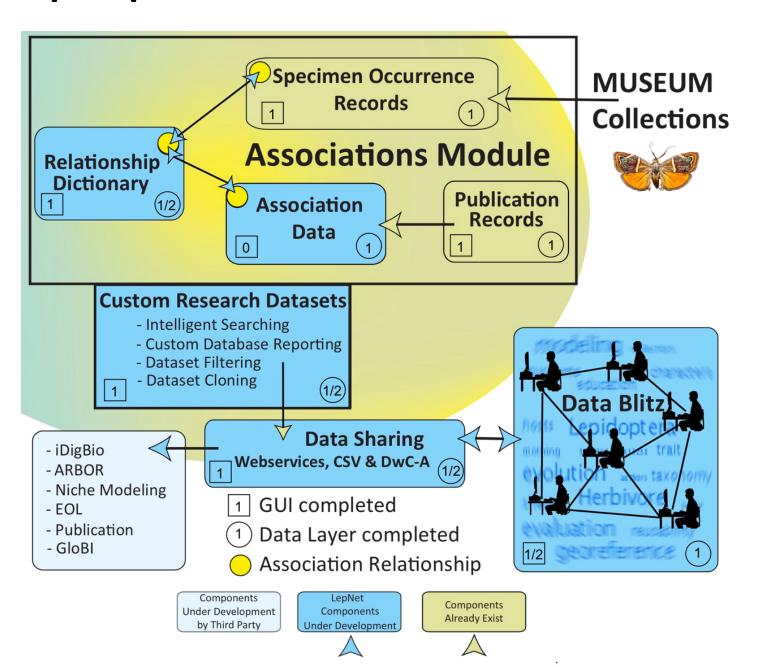
- More than 700 visual categories, organized taxonomically
- Photos curated in collaboration with domain experts
- Dataset available in two researcher-friendly formats: 1) widely-used PASCAL VOC and 2) CUB-200 format

Communicating Association Data via the Linking of AR Flashcards



<u>Arizona State University</u> The Museum School of Biodiversity program serves adult learners who are either studying for their GED, obtaining basic literacy skills, or are learning English.

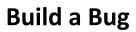
Lepidoptera of North America Network – Associations Database



- Databases do not connect diverse taxa
- 2. LepNet focus on lepidopteran host plants
- 3. Herbivore-Parasitoid associations
- 4. Vertebrate parasites
- 5. Insect-Macrofungi host relationships



Summer Bug Camp





Eat a Bug





Catch a Bug

