

SCAN
Southwest Collections of Arthropods Network

Southwest Collections of Arthropods Network (SCAN)
A Data Portal Built to Visualize, Manipulate, and Export
Species Occurrences
July 2012 to July 2015



Symbiota Promoting
Bio-Collaboration



This project made possible by National Science Foundation Award EF 1207371





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

July 2012 to 2020

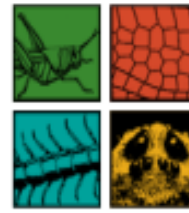


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SCAN Digitization Goals

- Digitize **750,000 records** for southwestern ground-dwelling arthropods
- Produce **16,000 high-resolution images** of species; promote identifications
- Broader Impacts: Symbiota upgrades, Filtered Push, outreach, new museums

SCAN Progress

1. On target to digitize specimens (**684,219**) 76% georeferenced, 64% identified
2. **76,000** Images (**7,693** high-res images, 68,306 specimen/label low-res images)
3. Filtered Push implemented (annotation)
4. Education-outreach program launched (Basham, Demo at this meeting)
5. First sustainable SCAN museum (Colorado State) is 52% of expected.
6. Significant incorporation of new museums and orphan data sets



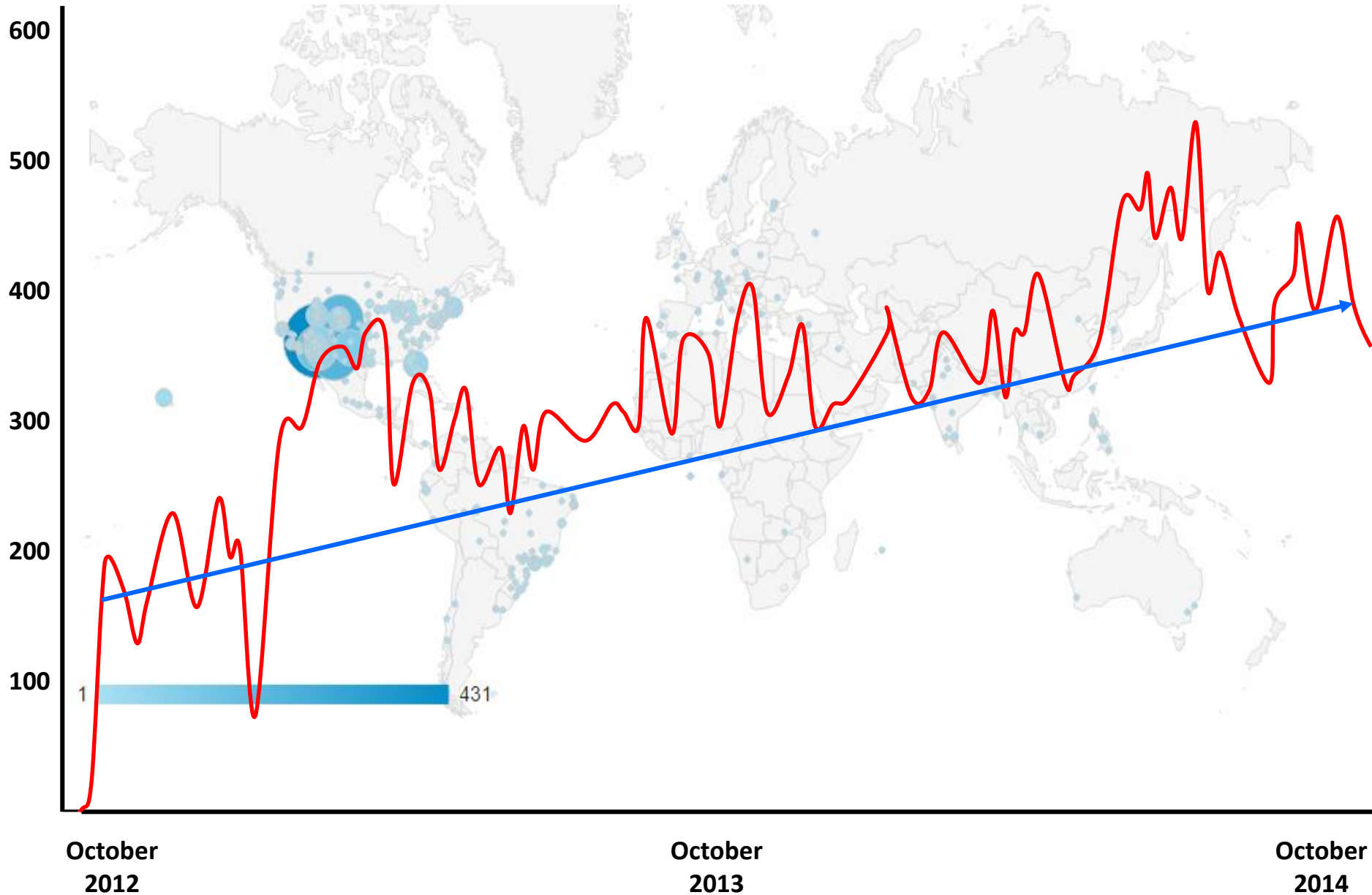
Five Focal SCAN Taxa: Encouraging Outlook

	SCAN+	SCAN PEN ¹	GBIF & iDigBio	TOTAL
Carabidae ²	90,558	11,000	212,360	313,918
Acrididae	74,874	66,300	51,111	192,285
Formicidae ²	53,026	97,600	75,358	225,984
Tenebrionidae ²	41,734	97,000	8,974	147,708
Araneae	34,220	0	35,055	69,275
TOTAL	294,412	271,900	382,858	949,170

¹Harvard, BYU (Funded); Ohio State (Pending); Academy of Natural Sciences (Planned)

² Specimens are 62%, 28%, and 50% identified to species for non-PEN specimens

Doubling of SCAN Portal Sessions (i.e., Moderate Growth)



SCAN Portal Sessions per Week (Google Analytics)

ADBC-Funded SCAN Databases

- 10 Original SCAN museums
- 2 PEN funded museums (Harvard, BYU)
- 1 Pending PEN museum (Ohio State)
- 1 Planned PEN museum (ANSP)

Records

684,219

Non-ADBC SCAN Databases

“We Love SCAN” Specimen Databases

- 6 General Collections- University
- 2 National Park Service - University
- 1 Department of Defense collection
- 1 State Agriculture collection

Moth Observation Databases

- 17 - University collections (Specimen observation)
- 4 - Private collections (Specimen observation)

Scarab Central Observation Databases

- 100 - University collections

120,000

34,000

100,000



27%
of Total SCAN

Goals: Final Year and Beyond

1. Extensive data cleaning & annotation in all SCAN collections.
2. Achieve 90% identification of specimens digitized to species within five years of project end.
3. Develop nine more sustainability plans for remaining SCAN collections.
4. Continue supporting digitization of non-ADBC collections and PEN grants.
5. Advertise “research-ready” data (i.e., 30 records per species) for 1,000s of target taxa



Climate Change Impacts on Wolf Spiders (*Pardosa*)

