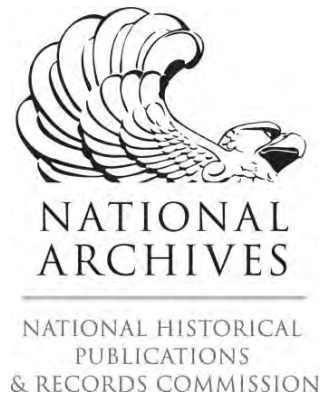


Discover – Explore - Connect

Engaging with the Environment through Historical Records in the Natural Sciences

A Literacy & Engagement with Historical Records project funded by the
National Historical Publications and Records Commission



Goals

- Make primary sources in the sciences accessible
- Create a model for teaching with primary sources in middle school and high school science classrooms
- Improve digital literacy
- Get outside!

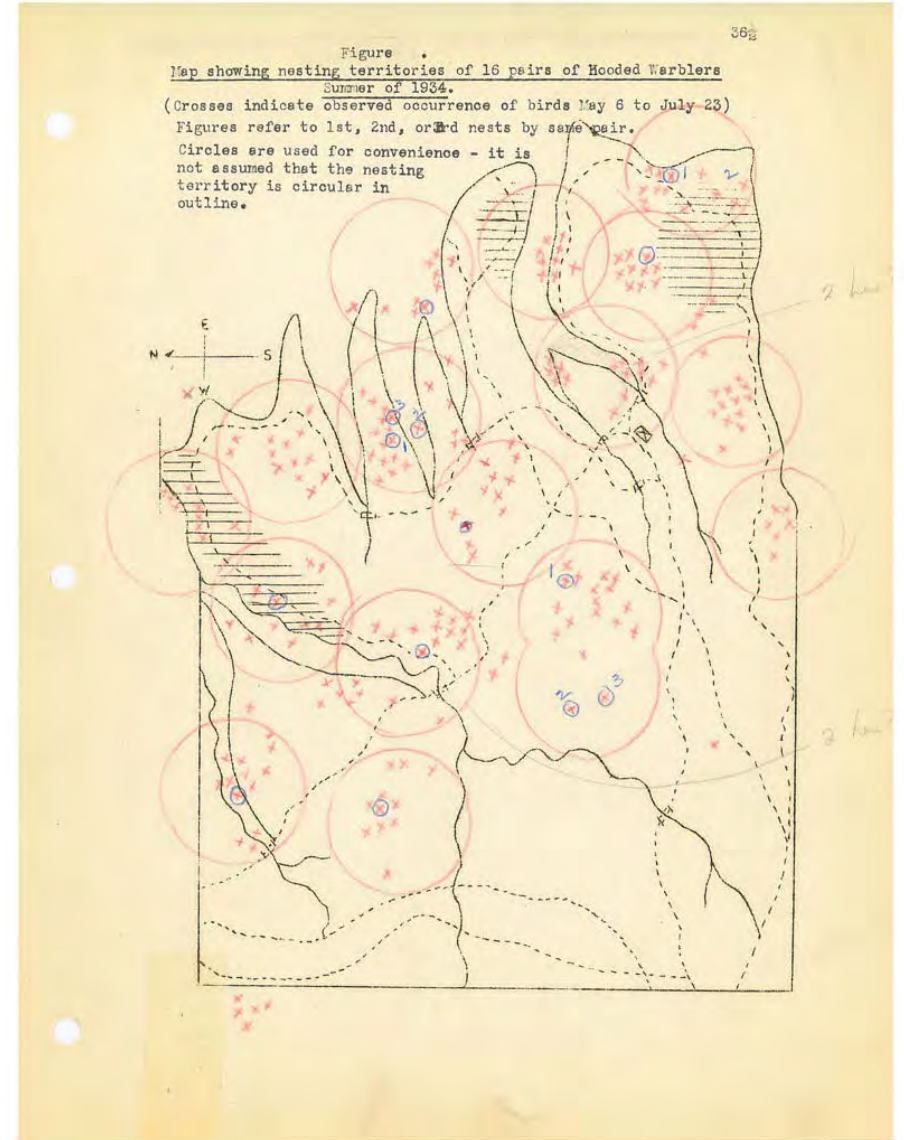


Roots: Middle School Students Meet the Archives



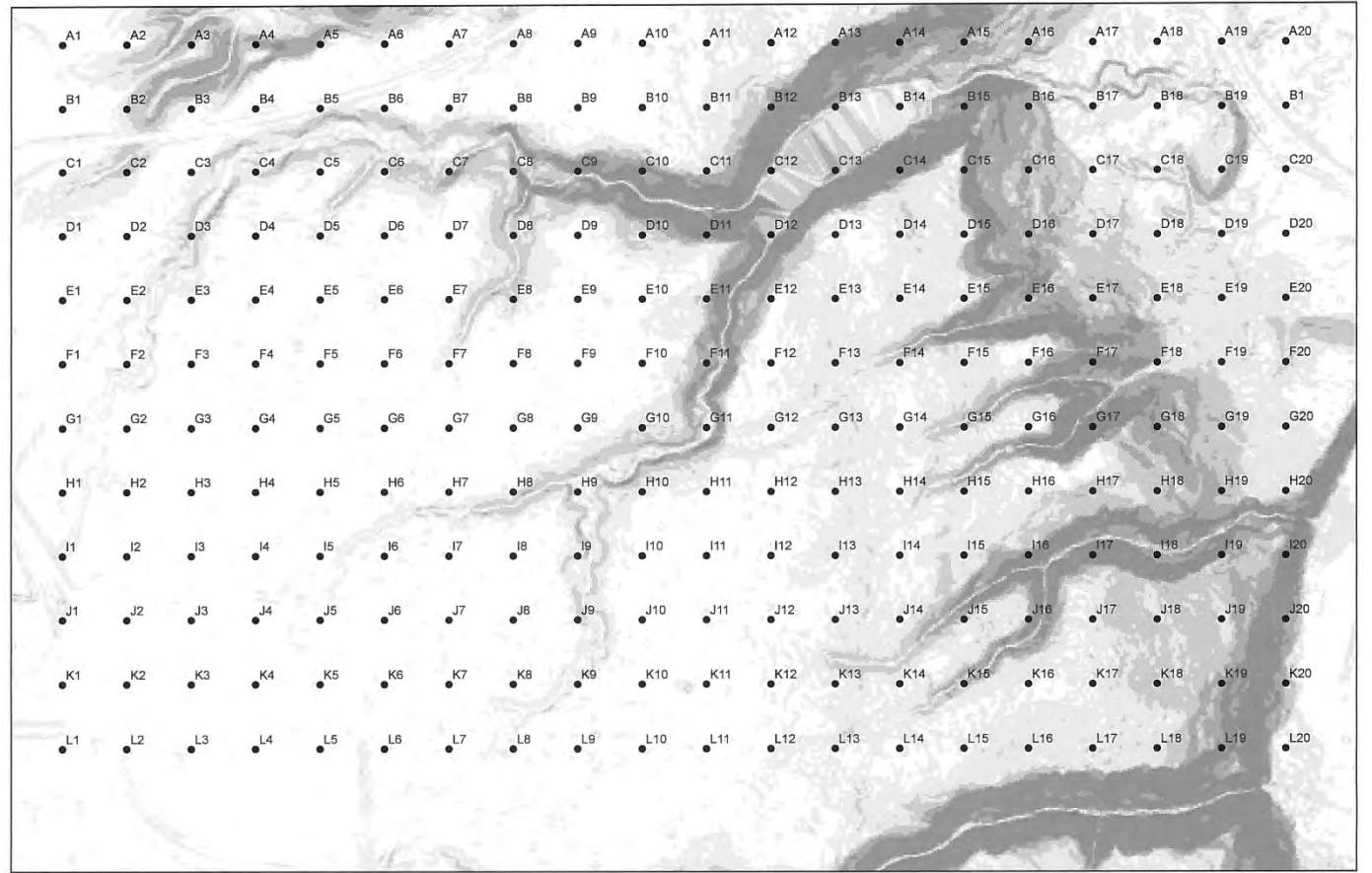
- Introduction to primary sources from the Museum Archives
- Hands-on exploration of historical records

Arthur B. Williams, Naturalist, Educator





Following in the footsteps of A.B. Williams



Name:

Date:



Following in the footsteps of A.B. Williams



Growing the Trees: NHPRC Grant

- Funding period: July 2016 – June 2018
- Objectives:
 - Digitize Arthur B. Williams Collection from Museum Archives and make material freely accessible
 - Create curriculum
 - Teach the teachers
 - Create an advisory panel of archivists and teachers to assist with product development and implementation

Breeding Birds of the Cleveland Region

Hooded Warbler

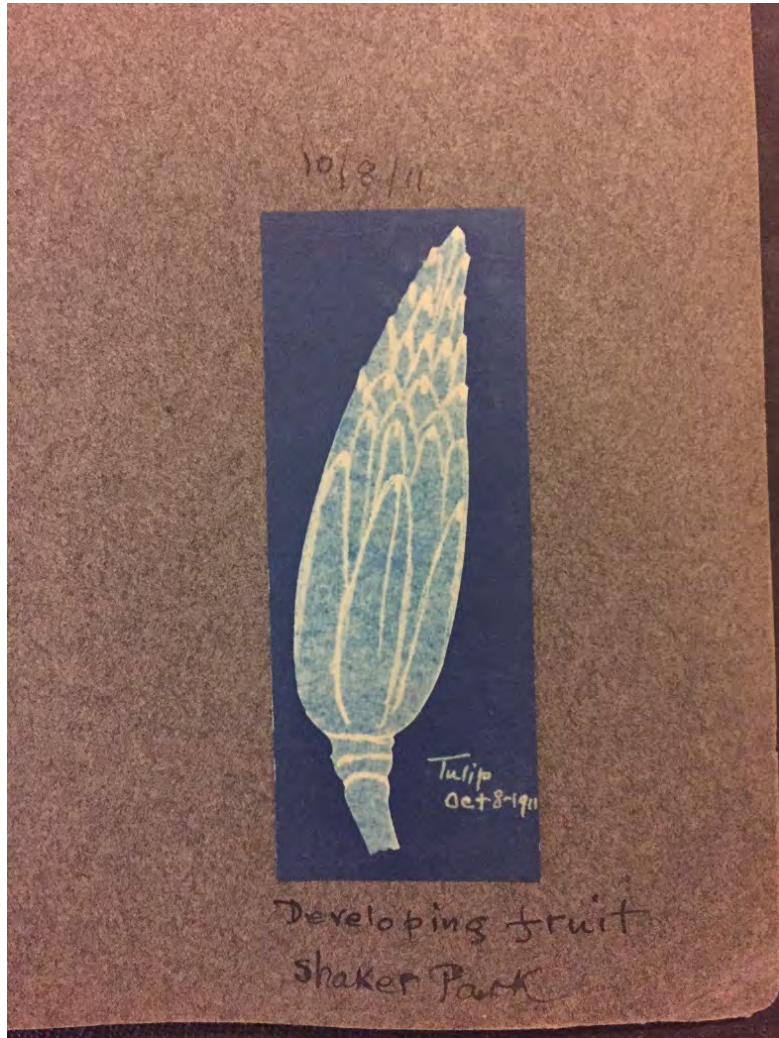


A. B. Williams

June 19, 1934

North Chagrin

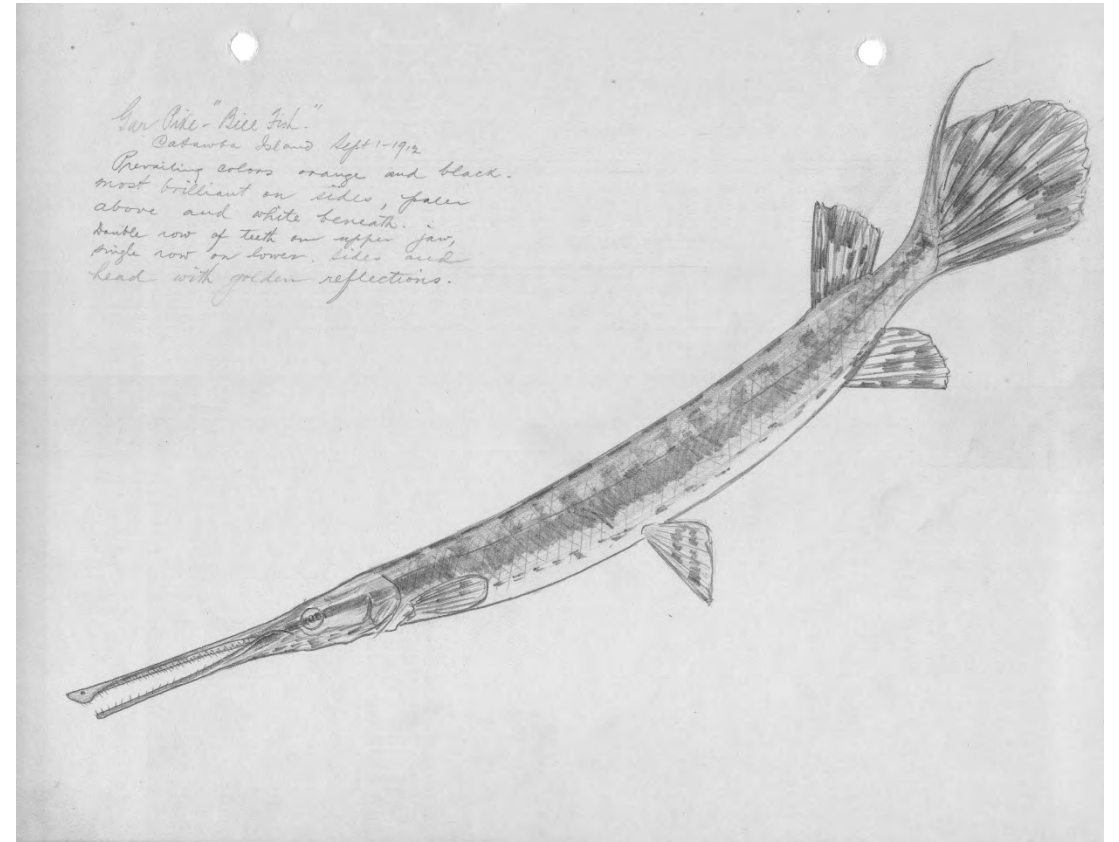
Digitization



- Collection includes field notes, maps, zoological data, scrapbooks, photos, manuscripts
- Baldwin Wallace is the digitization partner for project
- Material is scanned at BW
- Stored on OCLC CONTENTdm
- Public access via LibGuides

Technical Details

- Resolution: 600 dpi
- 16-bit grayscale
- Fragile materials scanned manually; sturdy materials scanned using feeder
- Documents saved as multi-page PDFs; stitched together and OCR'd using Adobe Acrobat CC
- Uploaded to CONTENTdm
- Items tagged using controlled vocabulary from Library of Congress Authorities

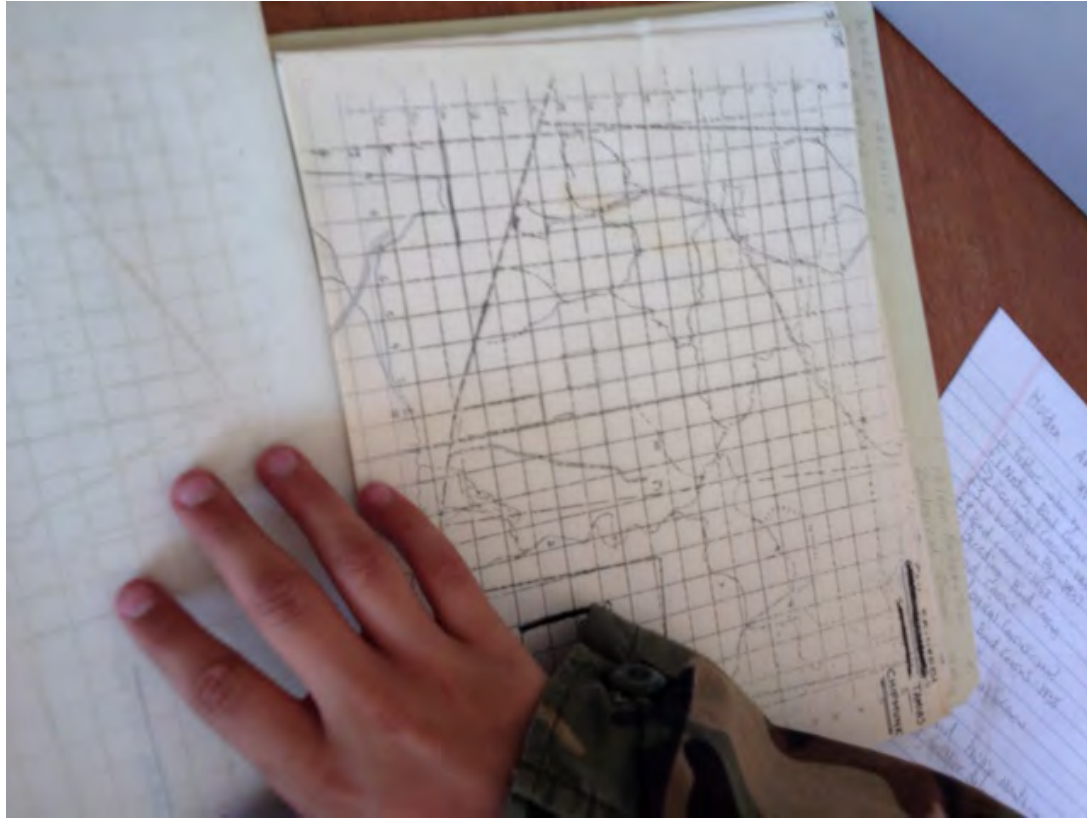


Curriculum: Experiential Learning



- Hands on experience for BW students
- Proper techniques for digitization
- Metadata creation
- Quality control of curated content
- Marketable post-grad skill sets

Curriculum: Teaching with Primary Sources



- Teacher Institute to be held December 2, 2017
- What is a primary source?
- How to find primary sources in the sciences
- Using the Discover – Explore – Connect online repository
- Keeping field journals

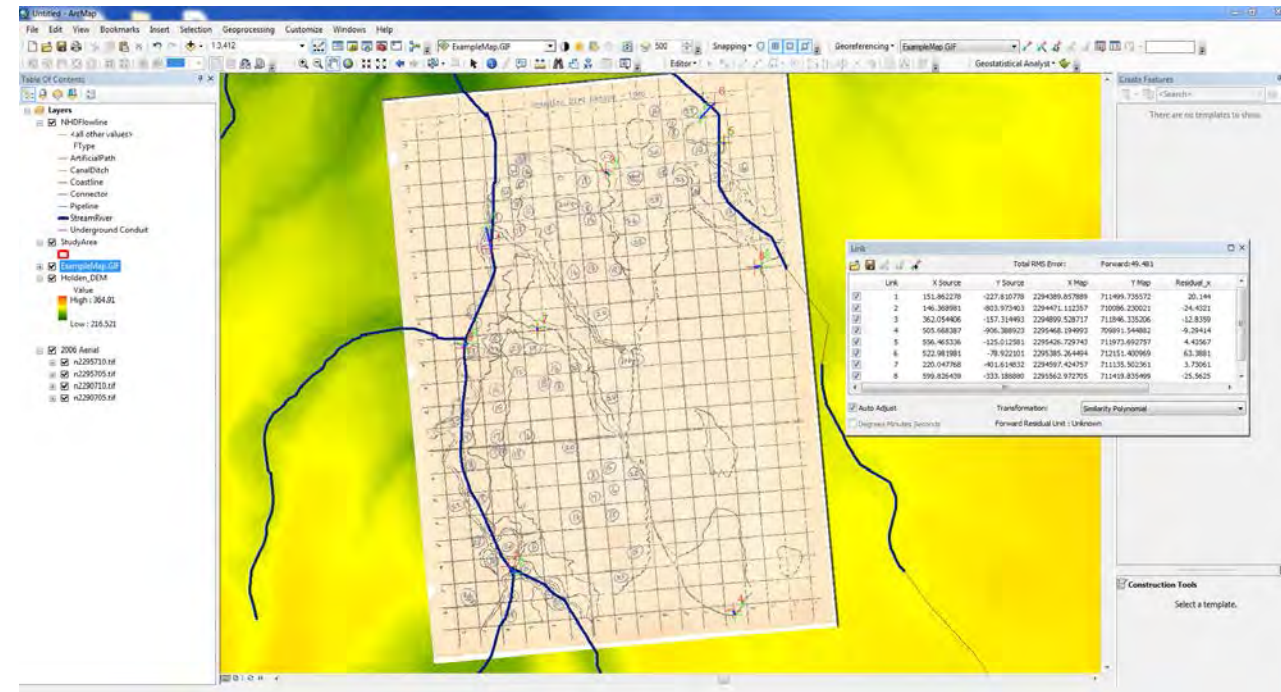
Curriculum: In the Field

- Walking in the footsteps of early naturalists
- Orienteering: using maps, compasses, binoculars
- Gathering data
- Comparing data



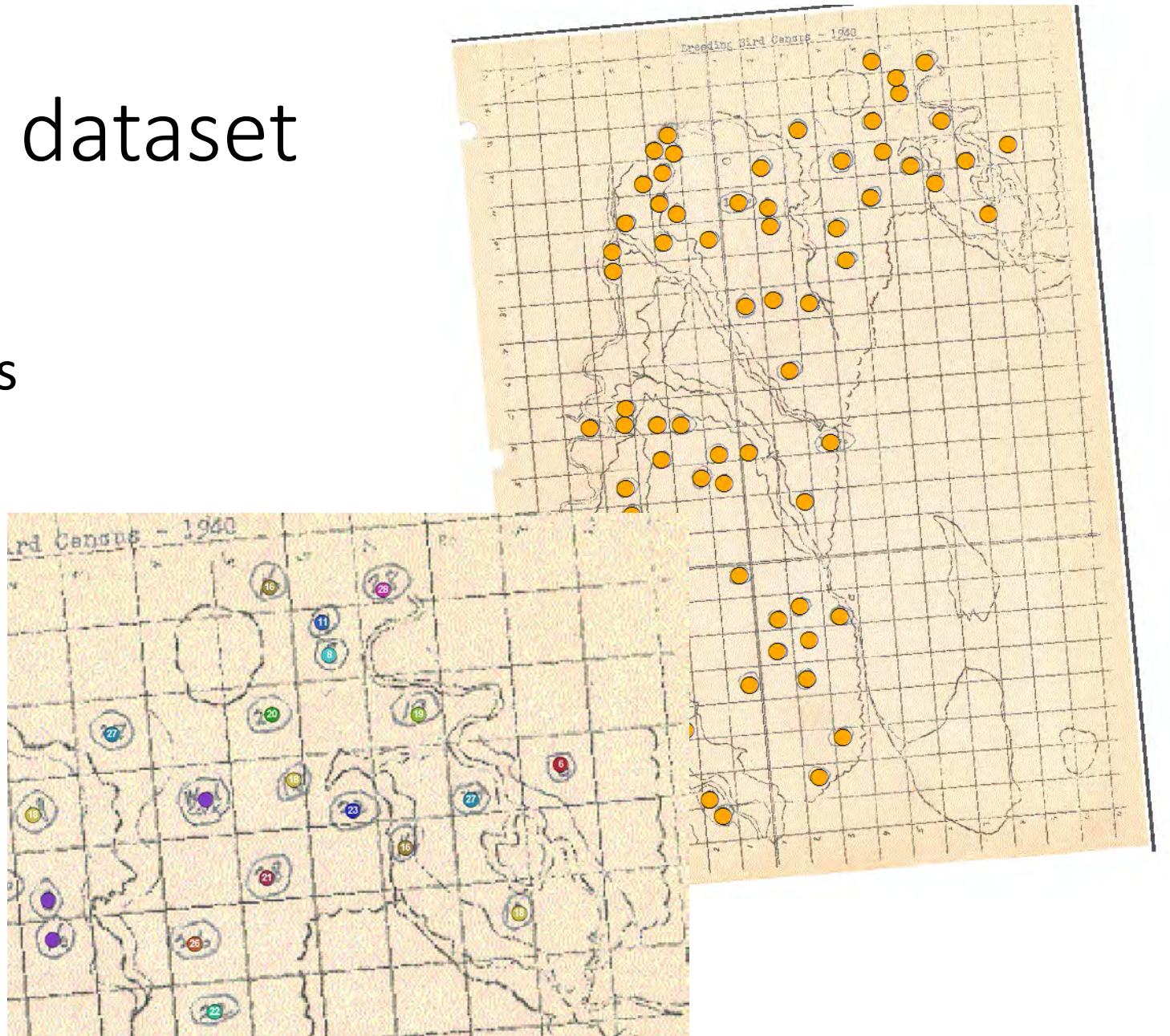
Digital Literacy

- Collaboration with University of Akron, Dept. of Geosciences
- PDF → GIS map
- Georeference the scanned PDF by aligning it with existing elevation and hydrography data
- Once aligned, a copy is created that can be used with other data in GIS
- Error is +/- 50 ft

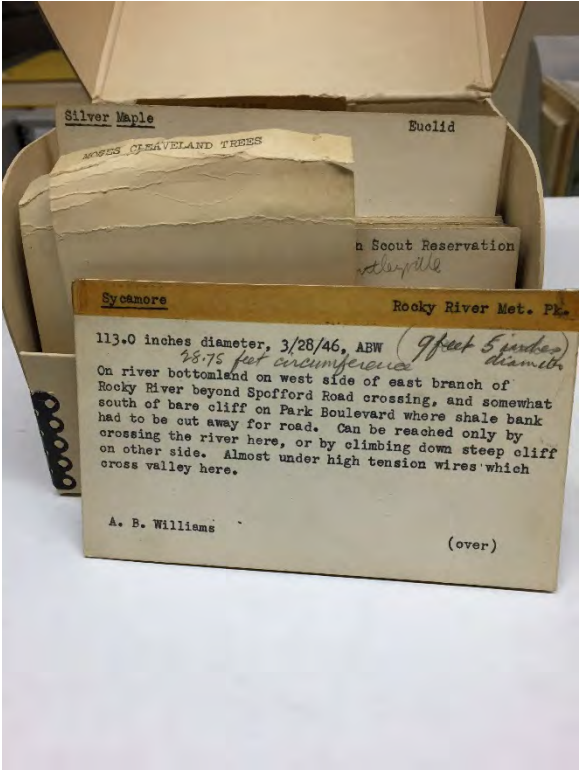
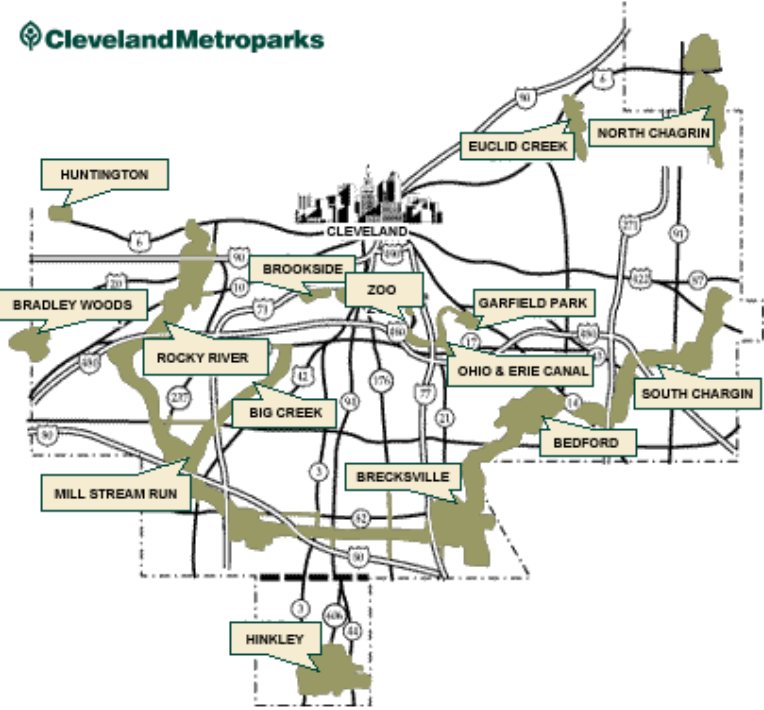


GIS map → Point dataset

- Create datasets of points to represent observations
- Add attributes to those points
- Point datasets are useful for cartographic and analytical applications



Sustaining the Forest: Future Collaborative Projects



Collaborative Benefits

- Expertise
- Intellectual synergy
- Fresh perspectives
- Symbiotic relationship
- Increased likelihood of funding
- Equipment
- Software
- Additional workforce
- Increased visibility
- Additional audiences



Questions?



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