

Archaeological Survey of a Data Deficient Region: Survey of > 1,700 Acres in Benton County, Indiana

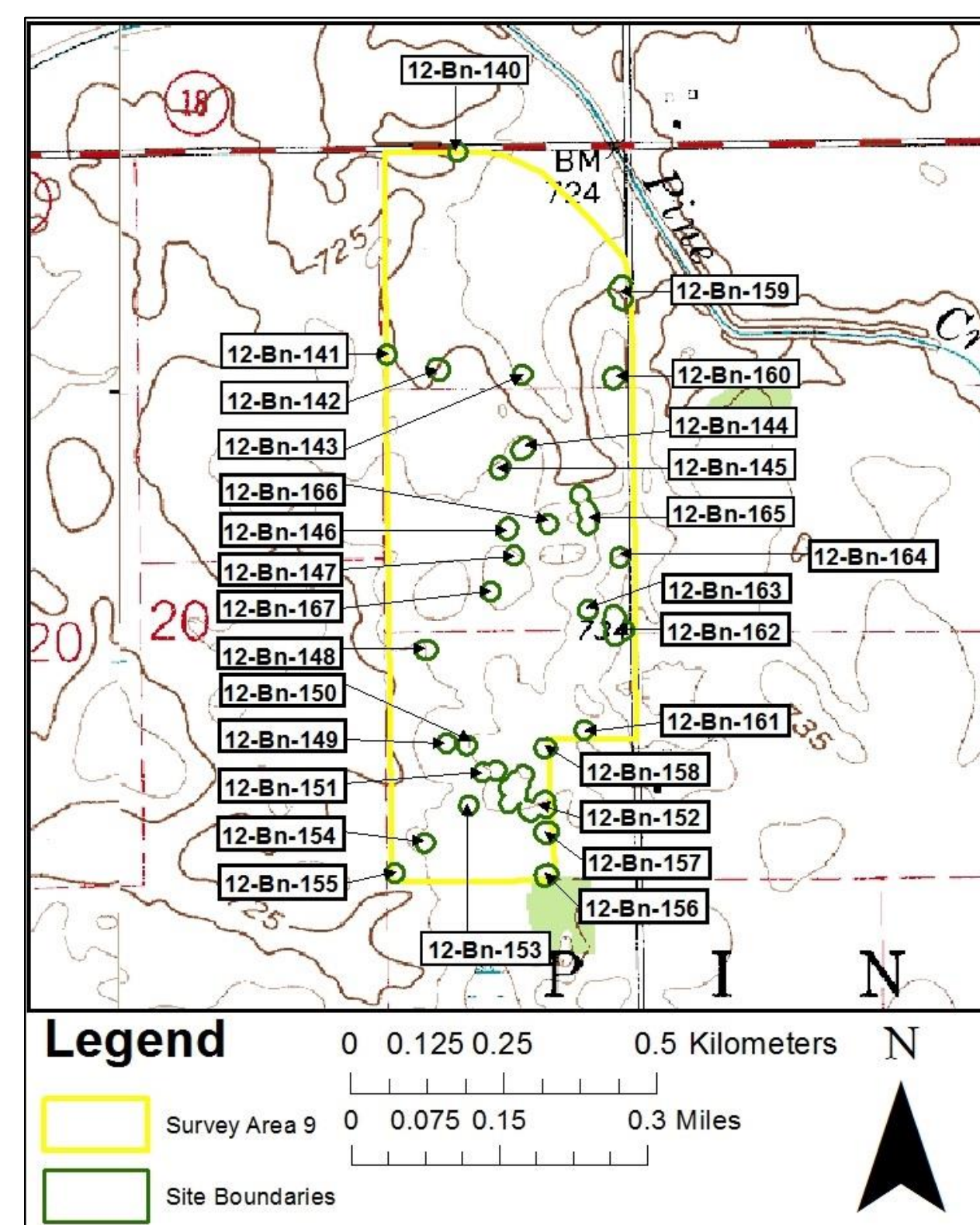
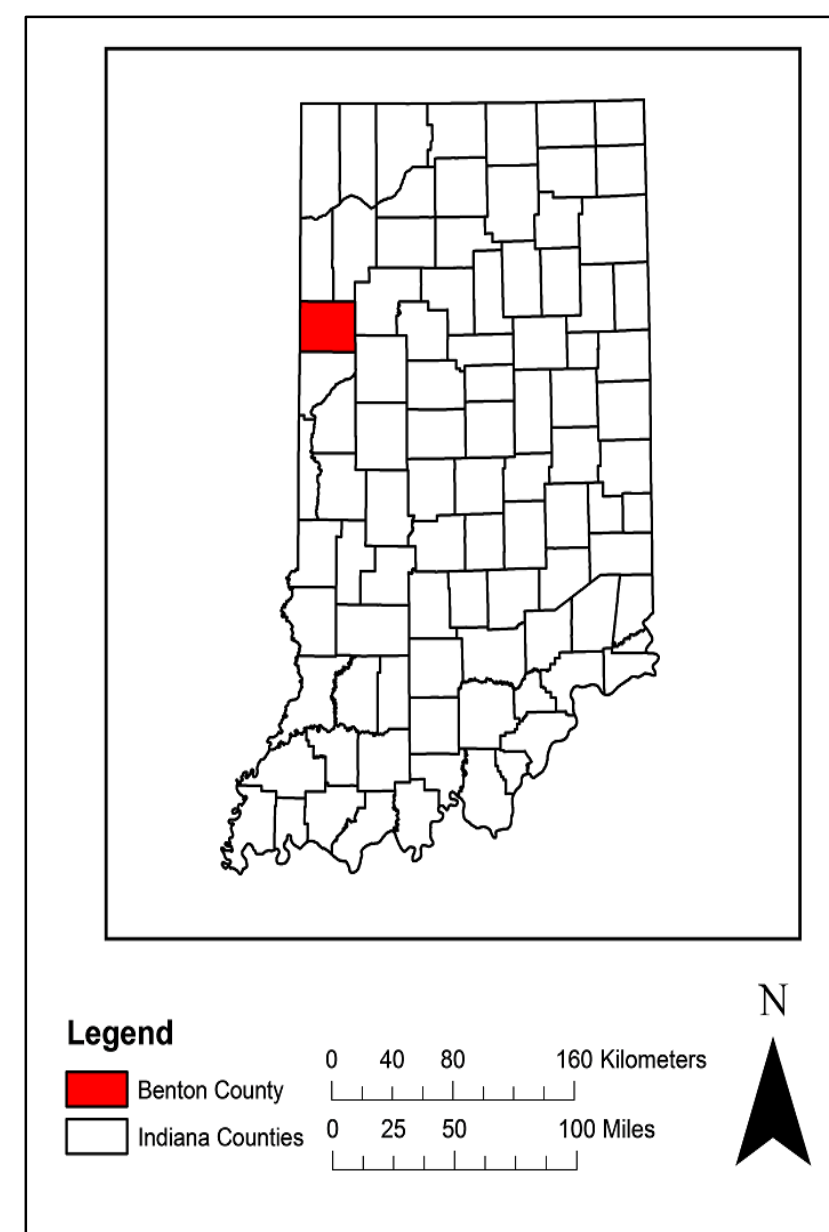
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Abstract

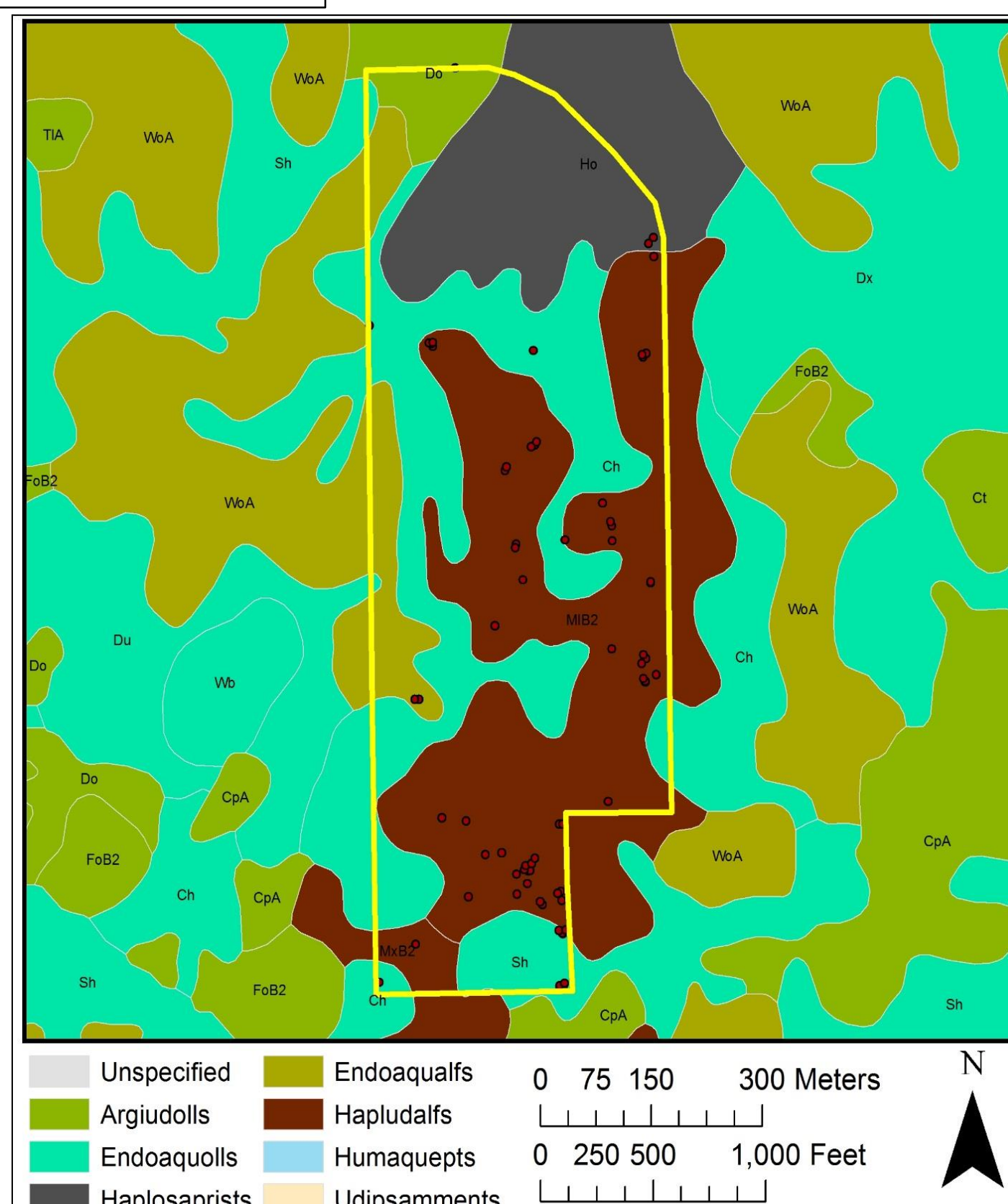
The Applied Anthropology Laboratories (AAL) conducted two data enhancement projects for archaeological resources in Benton County, Indiana funded by FY2015 and FY2016 Historic Preservation Fund grants. These projects covered all townships in Benton County, focusing on both previously unsurveyed areas and on areas documented as collector reported sites. A total of 1,769 acres of agricultural land was surveyed, identifying 201 new archaeological sites. The survey recovered 183 prehistoric artifacts and 2,603 historic artifacts. Cultural periods represented in the artifact assemblage include precontact era Early Archaic, Late Archaic, Middle Woodland, in addition to Historic components. Thirteen sites were recommended for additional research and are potentially eligible for the National Register of Historic Places.

Student Involvement

Undergraduate and graduate students were involved in all aspects of both projects, participating in all pedestrian surveys, performing artifact cleaning and lab analysis, and assisting with artifact identification. A Graduate Assistant was assigned to each project and was responsible for report writing and all GIS and mapping tasks. All student work was supervised and reviewed by AAL Archaeologists.



FY2015 Survey Area 9
Sites, Soils, and Points



Archaeological Methods and Results

A total of 25 separate agriculture parcels and 1,769 acres were surveyed using Phase Ia pedestrian methods. The majority of parcels were in standing corn. Landforms included ground moraines, end moraines, flood plains, and outwash terraces/plains. Points discovered during the survey included Kirk Corner Notched, Kirk Stemmed, Thebes (Early Archaic), Raddatz Side Notched (Early-Middle Archaic), Lamoka, Brewerton (Late Archaic), and Steuben Corner Notched (Late Woodland / Late Prehistoric). Before these surveys, there were 96 documented archaeological sites in Benton County; these two surveys added 201 sites to the county database.



Case Study - Historic Farmstead – FY2016 Survey Area 8

Survey Area 8 is an 132-acre parcel consisting of ground moraines and end moraines. The area contained Barce (BaB2), Chalmers (Ch), Darroch (Do), Foresman (FpB2), Gilboa (GIA), and Peotone (Pn) soils. Thirteen sites (12-Bn-242 to 12-Bn-254) were encountered during the survey. The sites ranged in size from prehistoric and historic isolated finds to a large historic scatter. Site 12-Bn-247 is a large, dense historic scatter (1.92 acres) with 1,403 historic artifacts and 118 bricks. From discussions with the landowner, his grandparent's house and farmstead was previously located on Survey Area 8 in the location of site 12-Bn-247. The parcel was purchased by the landowner's grandfather in 1899, with the house built shortly before the photo was taken below in 1903. The landowner indicated that the farmstead was bulldozed in stages in the 1980s and 1990s. The landowner, his wife, and sister visited the AAL to review the collection from their family's farmstead.



Case Study - Soils and Chert – FY2015 Survey Area 9

Survey Area 9 is an 105-acre parcel comprised of gently sloping rises of 5 to 15 feet consisting of Miami silt loam, a well-drained alfisol, surrounded by Chalmers silt clay loam and Houghton Muck both poorly drained soils. Sites 12-Bn-152, 164, 165 are all located on these rises of Miami silt loam. Eighty-four percent (n=16) of sites with a prehistoric component, including 12-Bn-152, 164, and 165, are located on the rises of Miami silt loam soil, suggesting that the people were focusing on the elevated well-drained soils. The combination of rich silt loam and poorly drained silt clay loam created a unique micro-ecology displaying a diversity of soil and biotic resources. The presence of Miami interspersed with Chalmers and Houghton within a relatively small area presents a unique concentration of past environments for Benton County, indicating that the micro-ecology resulting from these soils created an appealing landscape.

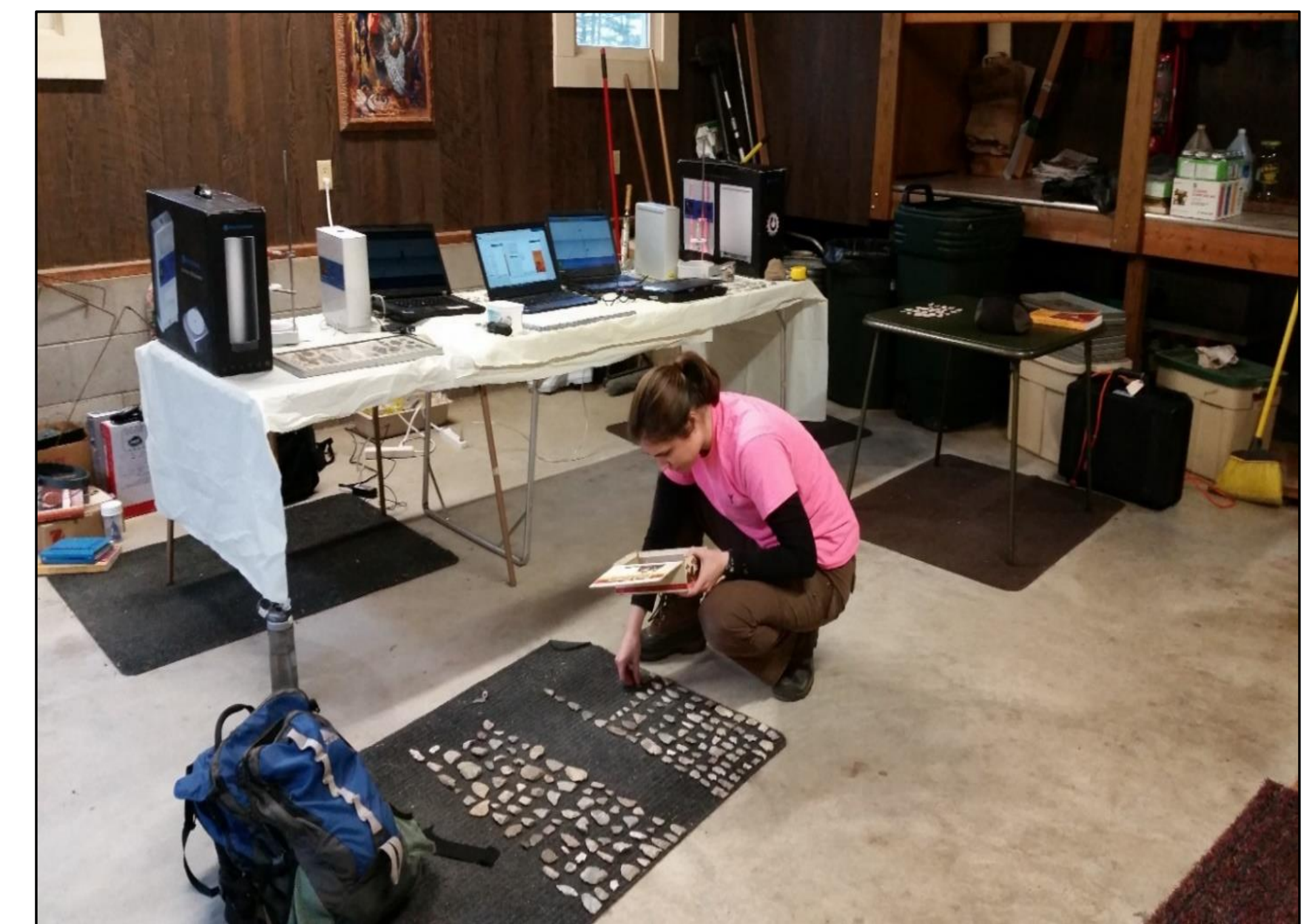
Of the 13 different chert types identified in Survey Area 9, 76.92 percent (n=10) are located on the rises. Burlington, Derby, Laurel, Liston Creek, Holland, Muldraugh, and Wyandotte, which have chert sources in Illinois and southern Indiana, were found only on the rises. Ohio Flint Ridge chert was found only in the low areas. Lost River and Jeffersonville, with chert sources found in southern Indiana, were found only on the low areas. Attica and Kenneth cherts, both with sources located the close to Benton County, were found on and off the rises. Survey Area 9 contains 65% (n=52) of all lithic materials found during the FY2015 investigation. Survey Area 9 is the only survey area to display Attica, Blanding, Flint Ridge, Lost River, Muldraugh, and Wyandotte cherts. These chert types have no outcrop near Benton County, with the exception of Attica chert located 35 km to the south. The presence of these exotic cherts suggests a more formal use of the landscape for activities such as formal lithic reduction, habitation, and chert trading.

Sites 12-Bn-152, 164, and 165 exhibit evidence of primary reduction and exotic trade. Site 12-Bn-152 was a prehistoric and historic scatter, containing a terminal Middle Woodland to early Late Woodland Steuben Expanded hafted biface, consistent with Attica chert, 12 other lithic artifacts, and three historic artifacts. Site 12-Bn-164 was a prehistoric lithic scatter consisting of a possible Early Archaic Thebes Notched scraper, consistent with Wyandotte chert and a proximal flake consistent with Laurel chert. Site 12-Bn-165 was a 2063.89 square meters (0.51 acres) lithic scatter containing a Late Archaic Brewerton Corner Notched heat treated biface, consistent with Muldraugh chert, and three other prehistoric flakes. Survey Area 9 was the only survey area in FY2015 that exhibit this pattern of landscape exploitation and should be considered as a potential location of resurvey for future investigations.

Based on the artifact assemblages, the soil context, and the possible unique micro-ecology, sites 12-Bn-152, 164, and 165 have the potential to yield additional information beyond the Phase I level. Viewed together, these sites exhibit a pattern of landscape usage based on the location of these sites on small areas of well drained soils within a larger poorly drained area characterized by wet prairie environments or ponds. Individually Sites 12-Bn-152, 164, and 165 do not seem to be eligible under Criteria D; however, as a group they illustrate a pattern of behavior (a type of environmental exploitation strategy) that represents an important trend in prehistoric interaction with and exploitation of the wetlands of northwest Indiana.

Documenting Private Collections

In both FY2015 and FY2016, one of our goals was to survey areas with collector reported sites. In some cases, the landowners still had access to those original collections and granted us permission to document their collection. The private collection shown below consists of 1,200+ artifacts. Approximately a third of the collection was photographed, identified, and scanned during a collector visit. Lithic tools were organized by base shape for counting and identification of raw materials macroscopically. All specimens were scanned with a Cannon LiDE 100 scanner on both sides. Several specimens were selected to 3D scan using a NextEngine Desktop 3D scanner. All results were tabulated and compared to survey results and other private collections in Benton County.



Public Outreach

We presented our results at two public presentations at the Newton County Government Center and the Benton County Government Annex. Over 100 people attended the hour-long presentations and associated displays, which covered all aspects of the grant including background, methodology, and results. Multiple people brought in their own artifacts for identification and many people gave us tips on future areas to survey in Benton County.



References

Balough, Amanda, Christine Thompson, and Kevin C. Nolan
2016 An Archaeological Survey of Benton County: Enhancement of a Data Deficient Region.
Balough, Amanda, Christine Thompson, Matthew P. Purtill, and Kevin C. Nolan
2017 An Archaeological Survey of Benton County: Enhancement of a Data Deficient Region, Part II.

Acknowledgement: This project has been funded in part by a grant from the U.S. Department of the Interior, National Park Service's Historic Preservation Fund administered by the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology. The project received federal financial assistance for the identification, protection, and/or rehabilitation of historic properties and cultural resources in the State of Indiana. However, the contents and opinions contained in this publication do not necessarily reflect the view or policies of the U.S. Department of the Interior, nor does the mention of trade names or commercial products constitute endorsement or recommendation by the U.S. Department of the Interior. Under Title VI of the Civil Rights Act of 1964 and Section 504 of the Rehabilitation Act of 1973, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, or disability in its federally assisted programs. If you believe that you have been discriminated against in any program, activity, or facility as described above, or if you desire further information, please write to: Office of Equal Opportunity, United States Department of the Interior, 1849 C Street, NW, MS-2740, Washington, D.C. 20240.