



OHIO RADIOCARBON REPORT

RADIOCARBON AGES FROM OHIO'S SURFICIAL MATERIAL

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COVER IMAGE: Layers of organic-rich sands from proglacial lake deposits in an aggregate pit near Whitehouse, Ohio.

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Ohio Radiocarbon Report

Radiocarbon ages from Ohio's surficial material

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ABSTRACT

The landscape of northern and western Ohio is predominately composed of sediments and landforms from the last glacial episode of the Pleistocene Epoch. Radiocarbon dating, a method for determining the age of sedimentary deposits up to 50,000 years old, is a vital tool for piecing together events from the most-recent glaciation that shaped Ohio's landscape. The effort to understand Ohio's glaciated landscape led to the amassing of radiocarbon data found in journal articles, dissertations, theses, field trip guides, laboratory reports, and personal files. This open-file report presents a compilation of Ohio radiocarbon ages to be used in geological research. To retain as much data as possible, sample results are presented as both conventional and calibrated ages. Ages are then categorized as being finite or infinite based on age results. To further assist geological investigations, data are characterized as Glacial, Interstadial, Post-glacial, and Ancestral Lake Erie, according to the stratigraphy of the collection site. Future entries of this radiocarbon database will include newfound ages and interpretations.

INTRODUCTION

The surficial geology of northern and western Ohio is characterized by glacial sediments with an array of subtle landforms and complicated subsurface layering. Understanding the history of the landscape requires reliable chronology from buried glacial materials. Radiocarbon dating is a conventional method for dating organic materials and is a vital tool for Quaternary geologic studies. Radiocarbon dating was first used to establish the general timing of recent glaciation in North America in the 1950s (Flint and Rubin, 1955), and subsequent research developed a more detailed sequence of events for glaciation in Ohio (e.g., Goldthwait, 1958; Lowell and others, 1999; Heath and others, 2018). However, radiocarbon data are often archived disconnectedly across a variety of sources such as journal articles, dissertations, theses, field trip guides, laboratory reports, and personal files—many of which are not readily available. Hence, the purpose of this report is to catalog Ohio's radiocarbon ages for both preservation and improved access to data.

Radiocarbon Dating

Before interpreting the geologic context of a sample, researchers must recognize the limits of radiocarbon dating. Radiocarbon ages do not directly date inorganic sediments, but rather the time of death of organic material (Libby, 1949). To account for the lag between time of death and time of sedimentary deposition, radiocarbon dates are subject to careful interpretations based on the sedimentary and stratigraphic context. In the laboratory, radiocarbon ages are determined by assessing the radioactive decay of ^{14}C , a weakly-radioactive isotope of carbon that is incorporated into organic material through the carbon cycle. The half-life of ^{14}C is 5,730 years (Godwin, 1962) and after 10 half-lives (approximately 57,300 years), less than 0.1% of the original ^{14}C is present. Thus, the limit of measurability is conventionally about 50,000 years before present to account for error from values originating from samples that experienced many half-lives. A dated sample that is younger than about 50,000 years is

considered a "finite" age, whereas a sample older than the limit of the radiocarbon detectability is presented with a greater than symbol ($>$) to indicate "infinite" age (e.g., $>50,000$; also called "radiocarbon dead") and is treated as the minimum possible age for the deposit. Some authors conservatively interpret an age as infinite if the sample closely approaches the limit of radiocarbon detectability, such as about 45,000 years before present (e.g., Lowell and others, 2018).

Laboratories report radiocarbon ages as conventional radiocarbon ages, which have units of ^{14}C years before present (^{14}C yrs BP). To keep publishable radiocarbon dates comparable, the standard "present" is corrected to 1950 AD (which is around the time of the dawn of radiocarbon dating research). Conventional radiocarbon age calculations assume that the amount of ^{14}C in the atmosphere in the past was the same as modern levels (Libby, 1949). However, since subsequent research recognized that atmospheric production of ^{14}C is variable (de Vries, 1958), calibration procedures are required to compare a conventional radiocarbon age with calendar years, resulting in units of calibrated years before 1950 AD (cal yr BP; Reimer and others, 2013). Infinite ages are not calibrated because they approach or surpass the limit of the calibration curve (about 50,000 cal BP; Reimer and others, 2013). Thus, the applicable time period for radiocarbon dating in geology and other fields is approximately limited to the past 50,000 years. This time range includes the Holocene (11,700 years ago to present) and falls within the latter part of the Late Pleistocene (2.6 million to 11,700 years ago; fig. 1).

Ohio's Glacial Geology

The landscape of northern and western Ohio was transformed during the Pleistocene Epoch by the advance and retreat of the Laurentide Ice Sheet. Following numerous erosion and deposition events that occurred over thousands of years in the Great Lakes region (Larson and Schaetzl, 2001), approximately two-thirds of Ohio is covered by glacial materials (fig. 2). Although multiple glaciations occurred during the Pleistocene, the stratigraphic record

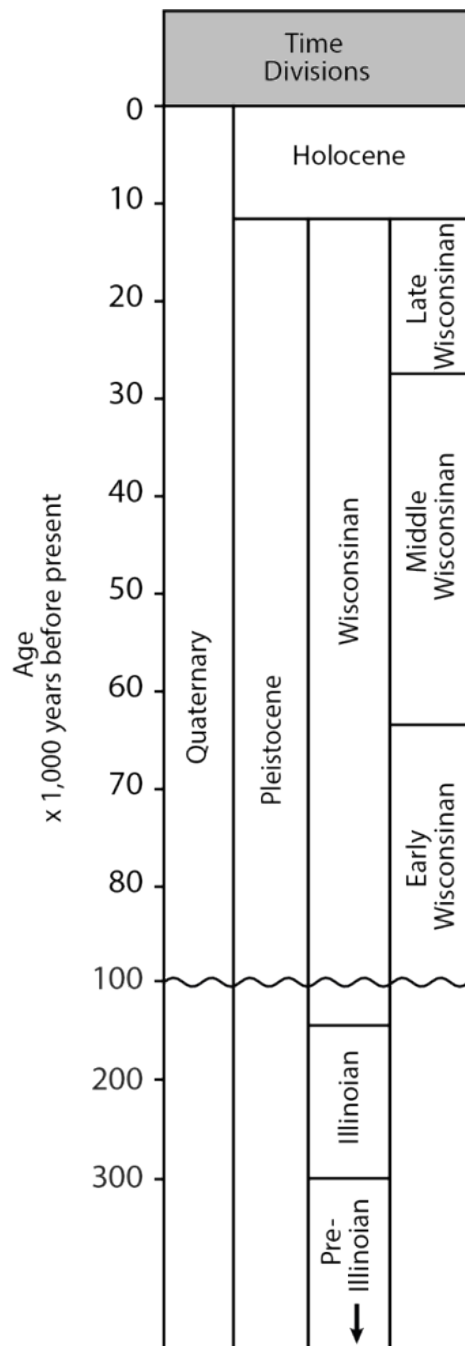


FIGURE 1. Geologic timeline of the Late Pleistocene and Holocene. Wavy line indicates a change in time scale spacing. Modified after Fullerton (1980) and Curry (1989).

from pre-Illinoian ice ages in Ohio (older than 300,000 years ago) is not well preserved because the sediments were either deeply buried or destroyed. However, the remnants of sediment from ice-dammed lakes in southeastern Ohio date to at least 780,000 years ago based on magnetic reversal studies (e.g., Szabo and Chanda, 2004). Additionally, some ground moraines in Hamilton County (Goldthwait and others, 1961; Pavay and others, 1999) are thought to have originated from pre-Illinoian glaciation events. However, materials from the Illinoian Glaciation (approximately 300,000 to 130,000 years ago) are evidenced by deeply weathered soil profiles and well-developed drainages (Goldthwait and others, 1961; Pavay and others, 1999; Szabo and others, 2011). Following the Illinoian

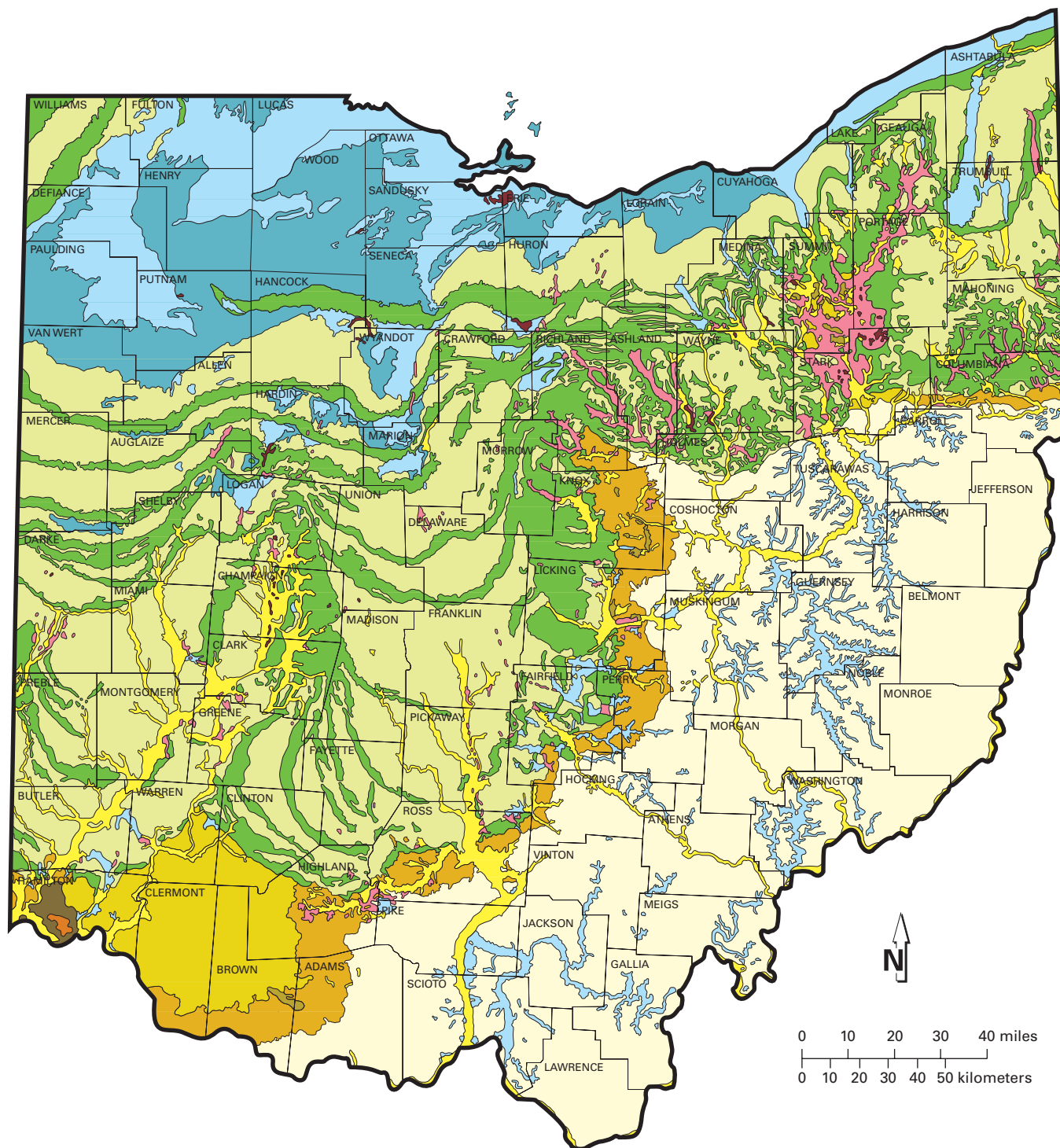
Glaciation is an interglacial period known as the Sangamon (approximately 130,000 – 80,000 years ago) which yielded sparse deposits in Ohio. All of these discussed glacial periods are well beyond the radiocarbon limit of detectability.

The most recent glacial period to affect Ohio is the Wisconsinian Glaciation (approximately 80,000 to 11,700 years ago). This glaciation is conventionally divided into the Early, Middle, and Late Wisconsinian (fig. 1). Radiocarbon dating and stratigraphic correlation with adjacent states indicate that the ice sheet was present in Ohio during parts of the Middle and Late Wisconsinian, although it is unclear if the ice sheet extended into Ohio during the Early Wisconsinian (Fullerton, 1986; Szabo and others, 2011). Ground moraines and ridge moraines mark the presence of the ice sheet during the Late Wisconsinian Glaciation, which reached its maximum extent between 21,000–18,000 years ago in Ohio (Goldthwait, 1958; Lowell and others, 1990; Lowell and Stuckenrath, 1990; Lowell, 1993; Lowell and Brockmann, 1994).

During the Late Wisconsinian, the Laurentide Ice Sheet subdivided into lobes and sublobes as a result of bedrock and topographical influences. The sediments in Ohio were deposited by the Huron-Erie (or Erie) Lobe, which is further delineated into five sublobes: Miami, Scioto, Killbuck, Cuyahoga, and Grand River (fig. 3). The leading edge of the ice sheet in southwestern Ohio (composed of the Miami and Scioto Sublobes) began its retreat by about 18,000 years ago (Lowell and Stuckenrath, 1990; Ekberg and others, 1993). However, the withdrawal of the ice sheet from Ohio was staggered and at least two major readvances deposited the till plain and moraines in northwestern Ohio (fig. 2; Fullerton, 1980; Mickelson and others, 1983; Howard, 2010). In northwestern Ohio, large proglacial lakes formed in the lowlands between the ice marginal position and a topographic high to the south (Leverett and Taylor, 1915; Hough, 1958). As the ice sheet continued its retreat, several lake stages of ancestral Lake Erie formed at subsequently lower elevations in the Lake Erie basin. Modern Lake Erie levels were established about 4,500 years ago (Lewis and others, 2012; Herdendorf, 2013; Fisher and others, 2015). Evidence of the Killbuck, Cuyahoga, and Grand River Sublobes is found in northeastern Ohio, where a series of moraines document the ice's northward retreat from the Appalachian Plateau. As the landscape became free of ice, organic materials began to accumulate on the post-glacial landscape. The sedimentary record of the transition from an inorganic to an organic environment is preserved in lakes, bogs, and wetlands (Shane and Anderson, 1993; Lutz and others, 2007; Glover and others, 2011; Gill and others, 2012). The retreat of the Wisconsinian-age ice sheet from Ohio is further evidenced by proglacial lakes that formed from the ponding of meltwater (Forsyth, 1959) and the outwash plains that formed from the rivers of meltwater flowing from the ice sheet (fig. 2) (Kempton and Goldthwait, 1959).

Previous Work

The oldest comprehensive review of Ohio radiocarbon ages discusses 26 ages from wood buried in glacial sediments (Goldthwait, 1958). Following the classification scheme of Flint



0 10 20 30 40 miles
0 10 20 30 40 50 kilometers

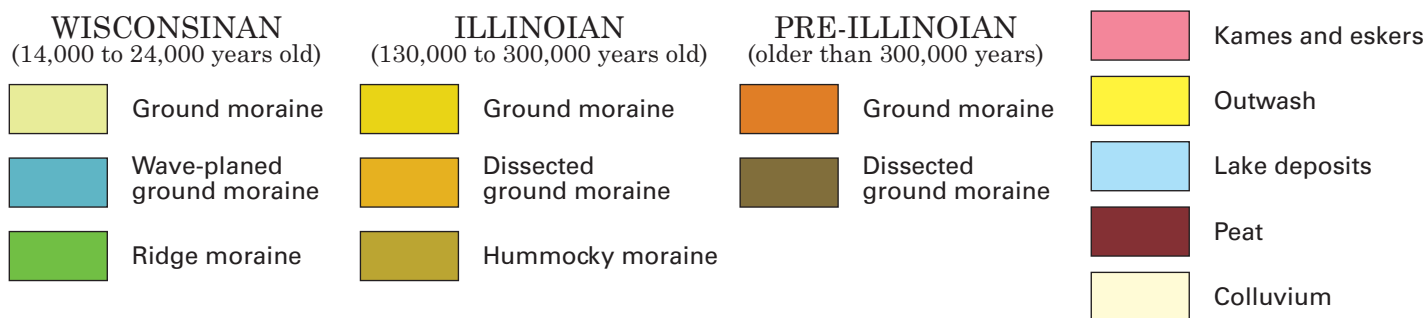


FIGURE 2. Glacial map of Ohio (Ohio Geological Survey, 2005).

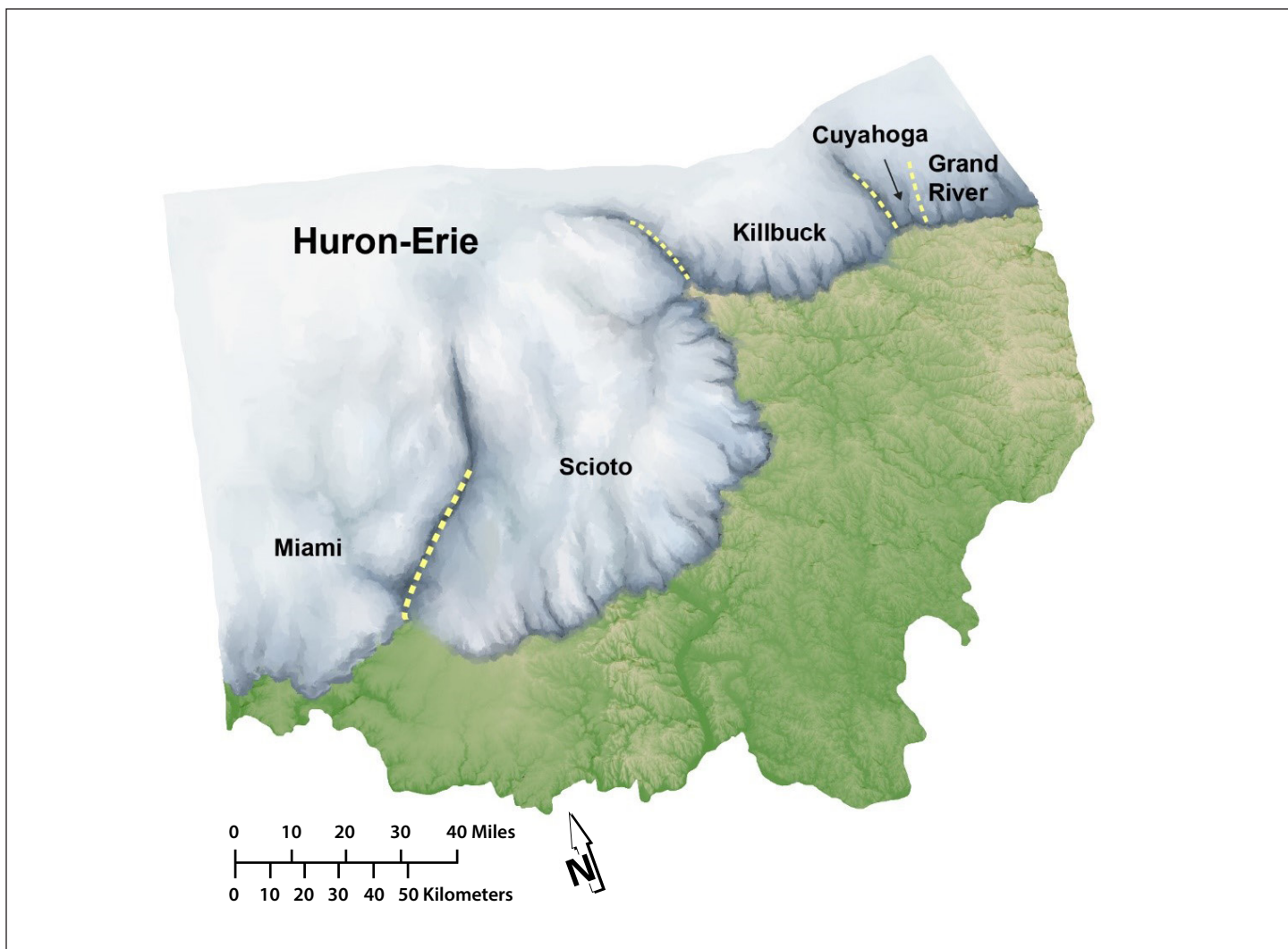


FIGURE 3. Glacial sublobes at the southern margin of the Laurentide Ice Sheet in Ohio (Norris, 2019).

and Rubin (1955), Goldthwait (1958) grouped the ages into three categories based on the observed age groups and interpretations. The first group is branded as the “Oldest Materials” dating >38,000 (^{14}C yr BP) and were considered beyond the limit of accurate radiocarbon dating at that time; the ages in this older group indicate that the buried wood is at least as old as the assigned age, and these samples could even be pre-Wisconsinan in age (Flint and Rubin, 1955). The second group, the “Mid-Wisconsin Forests” with ages ranging from 27,500 to 16,560 (^{14}C yr BP), are from logs buried in till (except for sample number W-71, found in Appendix 1, which is from lacustrine sediment buried in till) and are considered evidence for ice advances. The third and youngest group of ages, the “Late Wisconsin Forests,” range from 14,300 to 8,513 (^{14}C yr BP) and are from surface deposits, indicating a minimum date for ice cover at that location.

Following the emerging chronology of Ohio glacial geology established by Goldthwait (1958), research efforts focused on the events of the “Mid-Wisconsin Forests,” especially in the Miami and Scioto Sublobes (fig. 3). Radiocarbon ages from wood buried in till were interpreted as maximum ages for advancing ice (i.e., *stadials*) (e.g., Forsyth, 1965) and buried soils interbedded in till

were interpreted to archive periods of ice retreat (i.e., *interstadials*) (e.g., Gooding, 1975). Collectively, ages from wood and soils interbedded in till date the periods of ice sheet coverage in Ohio (Goldthwait, 1958; Forsyth, 1965; Gooding, 1975; Oldfield, 1977; Lowell and Brockmann, 1994; Lowell and others, 1999; Heath and others, 2018). Localities with detailed chronological analysis have also been used to study the ice sheet behavior. For example, radiocarbon dating interpretations determined that the ice oscillated at its margin for a few thousand years at the Miami Sublobe before beginning a retreat from Ohio (Lowell and others, 1990; 1999).

The post-glacial record consists of sedimentary deposits in ice-free environments. Radiocarbon ages from the bottom-most sediment of bogs and wetlands provide an age for the transition from a glacial to a post-glacial landscape, providing minimum ages for the timing of retreat of the ice sheet from Ohio (Shane, 1987; Szabo and others, 1988; Shane and Anderson, 1993; Wiles and others, 2002; Pritchard, 2006; Glover and others, 2011; Gill and others, 2012; Heath and others, 2018). Radiocarbon ages from shoreline deposits associated with proglacial lakes of the Lake Erie basin in Ohio also shed light on the development of ice-free landscape (Suess, 1954; Flint and Rubin, 1955; Goldthwait, 1958; Ogden and Hay, 1967;

Ogden and Hay, 1973; Totten, 1985; Szabo and others, 1988; Campbell and others, 2011).

Challenges in developing accurate radiocarbon chronology for glacial sediments were acknowledged in early studies (e.g., Flint and Rubin, 1955; Mickelson and others, 1983) but were not fully addressed until the 1990s. Lowell and others (1990) demonstrated that many ages per sampling location are required to determine how the site relates to the regional chronology. Lowell and Stuckenrath (1990) showed that radiocarbon ages are only estimates for glacial events, sometimes bracketing them within ranges of hundreds of years. Furthermore, research suggests that ages should be interpreted as ranges, rather than as a specific time (Lowell, 1995).

Radiocarbon dating methods and interpretations have improved since the first Ohio radiocarbon dates were published (e.g., Flint and Rubin, 1955). Initially, the decay of ^{14}C was determined via decay-counting methods, such as liquid scintillation (LS) counting. The LS counting method, which measures pulses of ionization from organic compounds emitted during radioactive decay, was the most widely used radiocarbon dating method until the advent of Accelerator Mass Spectrometry (AMS). Conventional AMS dating involves a multistep procedure that directly measures radiocarbon atoms through a conversion into accelerated ions. Technological improvements in AMS created a more efficient method for radiocarbon dating than previous techniques such as LS counting because AMS: (1) directly calculates the mass of carbon isotopes, (2) requires a shorter measurement time, (3) allows for a smaller sample size, and (4) has improved precision (Linick and others, 1989). Recent work has highlighted that uncertainty in glacial chronology can be addressed by re-dating deposits with newer methods (Lowell, 1995). For example, several sites in central and southwest Ohio (Goldthwait, 1958; Forsyth, 1965; Goldthwait and others, 1981; Gooding, 1975) have been re-dated, resulting in more-precise dating for several previously-dated sites (e.g., Pigati and others, 2010; Lowell and others, 2018; Nash, personal communication, 2019).

METHODS

Radiocarbon age values from various research studies pertaining to Quaternary deposits in Ohio were compiled into the table and spreadsheet accompanying this report (Appendix 1). Sources consist of published and unpublished data: ODNR Division of Geological Survey research reports, database files, geology field guidebooks, theses, dissertations, journal articles, research reports, personal communications with researchers. These data sources were mined for relevant data fields, which are further explained in Appendix 1. Some sample locations have approximate locations from the source description or maps. For standardization purposes, radiocarbon ages used to construct age-depth models were not included (e.g., Shane and others, 2001). However, bottom-most sediment from lakes, bogs, and wetlands provide an age for the transition from a recently glaciated and inorganic landscape to a vegetated and organic landscape (e.g., Glover and others, 2011); thus, *basal* radiocarbon ages used to develop age-depth models are included because such ages reflect significant shifts in depositional

environments. Radiocarbon ages from archeological sites were not included in this report, unless the sample had stratigraphic context. Because stratigraphic context of the sample is critical for geologic applications of age dates, stratigraphy details are included based on the original source when possible.

The ages in this report were categorized as Glacial, Interstadial, Post-glacial, and Ancestral Lake Erie (Appendix 1). These four categories provide contexts for major landscape developments in Ohio within the approximate 50,000-year radiocarbon detectability limits. The sample's location, stratigraphic relationship, geologic setting, and interpretation of the data source were used to interpret the context for the age (Appendix 1). For the purposes of this report, a radiocarbon sample fell within the Glacial category if it was obtained directly from within till, or from within various forms of glacial drift but not necessarily within till such as glaciolacustrine and outwash deposits. The Interstadial category contains materials that were deposited during recessional periods, such as organics and buried soils (e.g., Hall and Anderson, 2000). Materials in the Post-glacial category are located stratigraphically above till and include recent sedimentary layers and materials at the bottom of small water bodies. The Ancestral Lake Erie category consists of shoreline deposits found stratigraphically within till, which generally indicate a glacial period (i.e., stadial), or shoreline deposits that are found on top of till from a more recent, post-glacial environment. In summary: (1) Glacial ages are indicative of an actively overriding, retreating, or adjacent ice sheet; (2) Interstadial ages suggest ice free conditions at a location; (3) Post-glacial ages record the retreat of the ice sheet to much younger events on the landscape; (4) Ancestral Lake Erie ages are from sediments associated with stages of glacial to post-glacial development of water bodies specifically related to the Lake Erie basin.

Radiocarbon ages were corrected against a calibration curve of known past radiocarbon levels using the calibration program CALIB 7.1 (Stuiver and others, 2019). Because the datasets used to construct the calibration curves have improved over time, all ages in this report were calibrated with the most recent calibration curve, IntCal13 (Reimer and others, 2013). Values were reported directly from the output and are not always rounded to the nearest decade. Additional methods and parameters relating to age calibration are further discussed in Appendix 1. After conforming age dates, samples were organized into a Qualitative Age category that indicated the whether the sample was (1) Finite, or younger than approximately 50,000 years BP, or (2) Infinite, or older than approximately 50,000 years BP. A Reliability column was included to identify sample data that had a dubious age based on source context (Appendix 1). If the reported age for a record was infinite, was approaching infinite, or did not include a lab reported error, then this calibration step was not completed.

RESULTS

This report presents a compilation of approximately 418 radiocarbon ages from various organic materials from multiple surficial geologic deposits in Ohio. Age dating parameters based on qualitative age were organized into Finite (n=387) and Infinite

(n=31) (Appendix 1), although some samples may have questionable (n=29) reliability. Most of the samples are located on or within the Wisconsin glacial boundary, but at least six are located approximately between the Wisconsin and Illinoian glacial boundary, and three are located outside the glacial boundaries and are within areas of outwash or lake deposits (fig. 4).

For those samples with an identifiable geologic context, the ages in the Glacial category (n=181) and Interstadial category (n=113) are located primarily in the southernmost part of the glaciated region of Ohio within the Miami and Scioto sublobes (Except for the notable Garfield Heights site near Cleveland; Sumodi, 1974) (fig. 5). The Post-glacial ages are distributed across the glaciated region of Ohio but are concentrated in central and northeastern Ohio (n=93). Ancestral Lake Erie ages are located primarily around the modern lake edge and around abandoned shorelines but are distributed as far as 25 miles to the west of the western shore of Lake Erie (n=25). Ancestral Lake Erie sample sites are also located in the western and central basins of Lake Erie from low levels during the Holocene (Lewis and others, 2012). The spatial distribution of these temporal data collectively indicates geographic trends of current age dates and the dateable range of materials throughout different parts of Ohio (fig. 6).

CONCLUDING REMARKS

This report serves as a preliminary effort to gather and categorize known radiocarbon data relating to Quaternary geology in Ohio. The reader should acknowledge that this database report is a continual work in progress, and it should not be considered an exhaustive list of all available radiocarbon dates for Ohio at any given point in time. Readers are encouraged to notify the ODNR Division of Geological Survey of additional significant radiocarbon dates, errors and omissions, and other suggestions for future editions of this report. The development of this radiocarbon catalog will aid Pleistocene and Holocene researchers by providing a single accessible database of age dates for Ohio.

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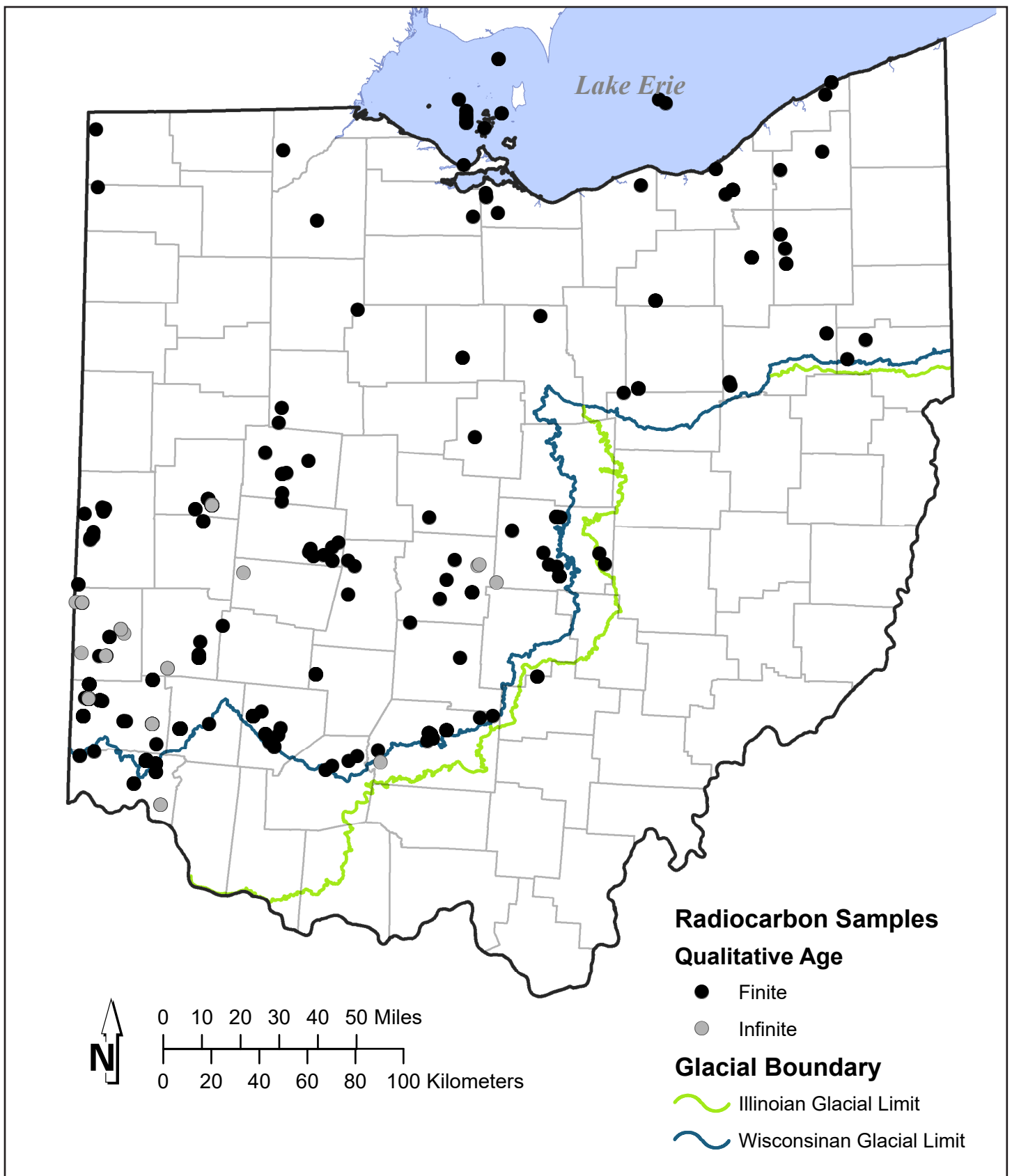


FIGURE 4. Locations of radiocarbon sample collection sites included in the database, categorized by being either finite or infinite.

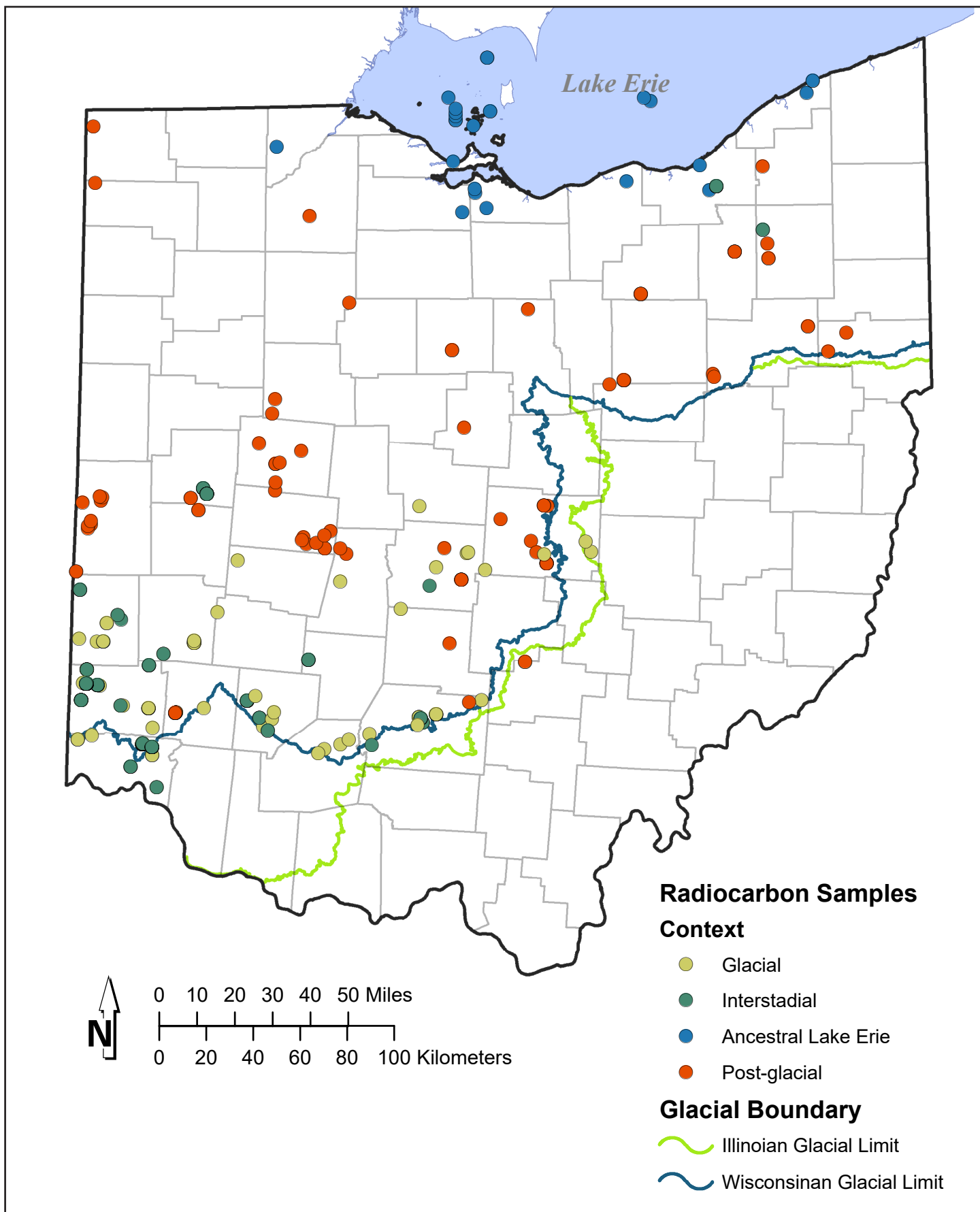


FIGURE 5. Locations of radiocarbon sample collection sites included in the database, categorized by context.

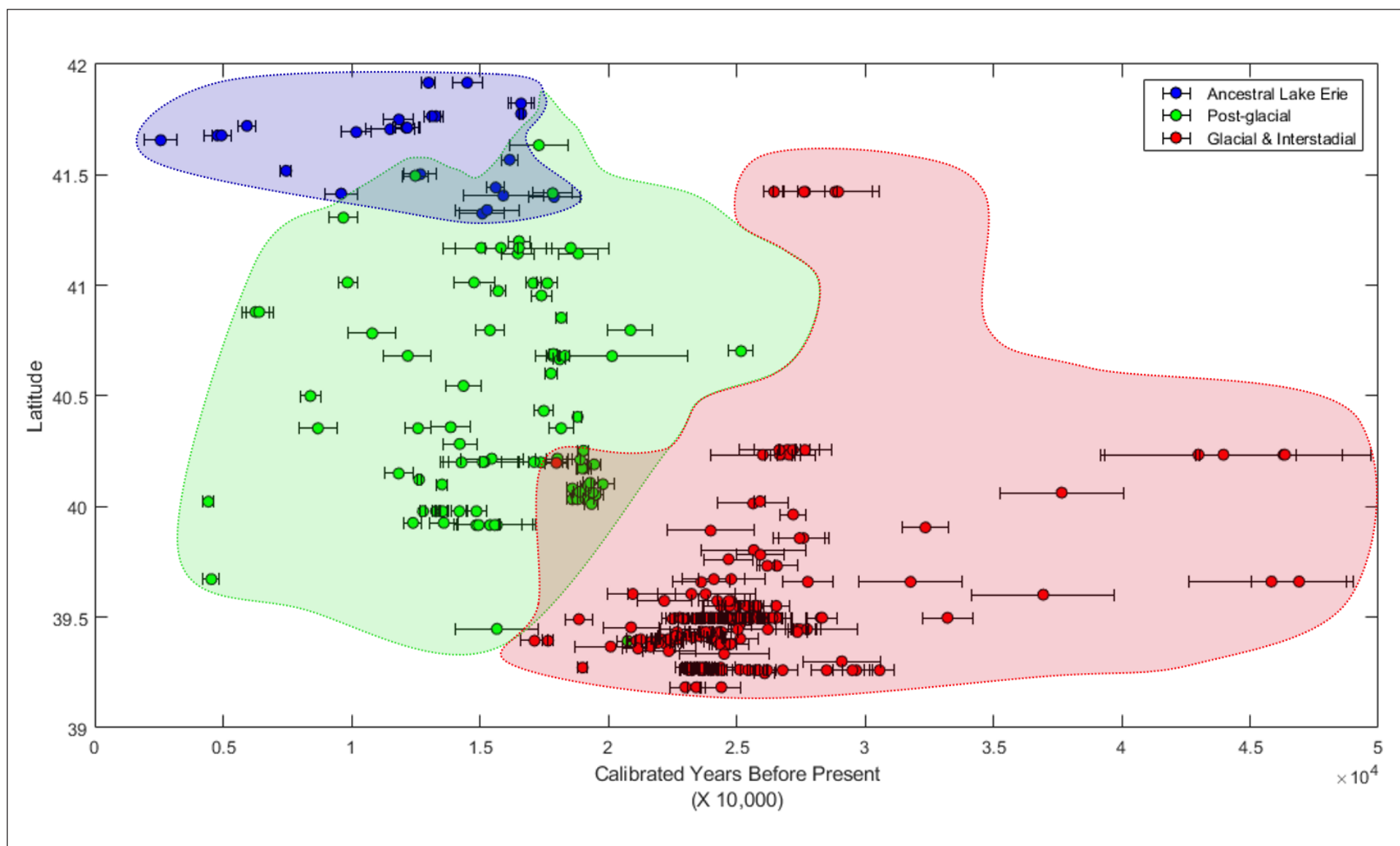


FIGURE 6. Calibrated radiocarbon dates grouped by context and plotted by latitude. Error bars show a 2σ range of age uncertainty. Interstadial samples are included in the Glacial category for the purposes of this plot. This plot includes only finite ages.

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APPENDIX 1

Explanation of data fields

The data listed on the following pages represents a preliminary effort to gather and categorize known radiocarbon data relating to Quaternary geology in Ohio. These data were considered current as of the time of publication, but the reader should acknowledge that this database is a continual work in progress and should not be considered an exhaustive list of all available radiocarbon dates for Ohio at any given point in time. Readers are encouraged to notify the ODNR Division of Geological Survey of additional significant radiocarbon dates, errors and omissions, and other suggestions for future editions of this report. Appendix 1 is a condensed version of the complete Ohio radiocarbon database. For the most up-to-date and complete version of this database, please visit geology.ohiodnr.gov.

Lab ID	The identification code for the dating laboratory.
County*	County in which the sample collection site is located.
Site	Name of the collection locality. Typically references a road, river, building, or landform.
Latitude	Latitude of sample collection in decimal degrees. Locations were verified by comparing the site coordinates and site descriptions with aerial photography and topographic maps in GIS and were manually adjusted if they did not match. If location data were reported in a different coordinate system, it was converted to WGS 1984 latitude and longitude. If the coordinates needed to be manually adjusted or relocated, 'Approximate location' was included in the "Note" data field.
Longitude	Longitude of sample collection site in decimal degrees (see Latitude description).
Qualitative Age*	Labels the sample as Finite or Infinite based on reported age or source.
Reported Age (^{14}C yr BP)	Conventional, uncalibrated radiocarbon age reported by the laboratory or source document. BP = before present, beginning at year 1950 AD.
±	Error, or deviation from conventional radiocarbon age (in units of ^{14}C years before present). This value is supplied by the laboratory based on internal standards.
$\delta^{13}\text{C}$ (‰)*	Isotopic fractionation of carbon by natural biogeochemical processes (Craig, 1953). Conventional radiocarbon ages are corrected for sample isotopic fractionation. A blank cell indicates this value was not reported.
Cal. Median Age (cal yr BP)*	Calibrated median radiocarbon age. The median probability age provided by the Calib7.1 output (Stuiver and others, 2019).
1σ Min*	Part of the calibration output; the upper (and younger) age from the range of uncertainty in cal BP; one standard deviation of the highest probability.
1σ Max*	Part of the calibration output; the lower (and older) age from the range of uncertainty in cal BP; one standard deviation of the highest probability.

1σ Area*	Part of the calibration output; the relative percent of area under the calibration curve (1 = 100%). This is the age probability within one standard deviation. When more than one range group falls within the probability distribution, the highest probable area, and thus the highest probable Minimum and Maximum age range within two standard deviations, is reported.
2σ Min	Part of the calibration output; the upper (and younger) age from the range of uncertainty in cal BP; two standard deviations of the highest probability.
2σ Max	Part of the calibration output; the lower (and older) age from the range of uncertainty in cal BP; two standard deviations of the highest probability.
2σ Area*	Part of the calibration output; the relative percent of area under the calibration curve (1 = 100%). This is the age probability within two standard deviations. When more than one range group falls within the probability distribution, the highest probable area, and thus the highest probable Minimum and Maximum age range within two standard deviations, is reported.
Cal. 2σ Mean Age (cal yr BP) *	Calibrated radiocarbon age calculated as the average of the 2 σ age range (2 σ Min and Max) fields. Age ranges correspond to the 2 σ statistics (approximately 95% probability) with probability for age (area under curve), from the Calib7.1 output (Stuiver and others, 2019). This age field is used in Figure 6 in this report.
2σ \pm*	Approximate calibrated error, calculated as the absolute value of the difference between 2 σ max and the Calibrated 2 σ mean fields.
Material	Material dated mostly includes bulk soil, plants debris, bones, shells, charcoal, and other organics.
Stratigraphy	The type of sediment from which the sample was collected. The layers of sediment above and below the sample are also included if applicable. For radiocarbon ages obtained from published data tables, the stratigraphy data was copied from the data table. For radiocarbon dates obtained directly from literature, stratigraphy data was obtained from the exposure descriptions, radiocarbon reports, and the original source interpretation and discussion. The original source stratigraphic interpretation was prioritized, but notes to retain additional pieces of information about the stratigraphic context were also included. If the source author interpretation was unavailable or unclear, stratigraphic information was taken from a subsequent publication, or inferred from the sample material.

Sublobe	<p>Denotes the six lobes or sublobes of the Huron-Erie Lobe of the Laurentide Ice Sheet that are generally recognized in Ohio. Samples are generalized into three groups. See fig. 3 for approximate locations of glacial sublobes.</p> <ul style="list-style-type: none"> • Erie = Erie sublobe • Miami-Scioto = Miami and Scioto sublobes; • KCG = Killbuck, Cuyahoga, and Grand River sublobes.
Context	<p>Calibrated radiocarbon ages were assigned a context based on source author interpretation or were inferred if interpretation was indistinct or unavailable.</p> <ul style="list-style-type: none"> • Glacial — from samples in till, interbedded sand and gravel, and other forms of glacial material such as glaciolacustrine and outwash. • Interstadial — from brief glacial recessions, including ages from organic mats, buried soils, peat layers, and buried forest beds. Also includes glaciolacustrine silts and clays deposited during recessional periods and buried under till during readvance. • Post-Glacial — from sedimentary deposits overlying till, providing a minimum date for glacial retreat (Glover and others, 2011). This includes sediments from bottom-most lacustrine, wetlands, and bog deposits. • Ancestral Lake Erie — from shoreline deposits from the large proglacial lake levels in the Lake Erie basin, and organic deposits buried in the bottom of Lake Erie.
Reliability*	<p>Confidence of age date and data in regard to context or quality; typically denoted as questionable if source considers the value exceptionally younger/older than expected.</p>
Sources	<p>Reference for the age, location description, and sedimentary exposure description. The original source was referenced in most cases, but if the original source could not be located, the first source that mentioned the age was referenced. Many radiocarbon ages in this report reappear multiple times in the literature; however, not every iteration was included in the references. Additional references containing sample sedimentary context and key interpretations were included as necessary.</p>

* These fields are not included in the electronic version of this report. However, they are included in the full radiocarbon database, accessible at geology.ohiodnr.gov.

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	n	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
OWU-76	Adelphi	39.454000	-82.776000	17,290	436	19,795	21,982	Wood (Picea)	silt	Miami-Scioto	Glacial	Mickelson, 1983; Ogden and Hay, 1965
OWU-321	Akron Mastodon	41.170000	-81.500000	13,695	460	15,233	17,813	Wood (Picea)	silt	KCG	Post-glacial	Ogden and Hay, 1973
OWU-190	Akron Mastodon	41.170000	-81.500000	15,315	625	17,030	20,049	Wood (Picea)	silt	KCG	Post-glacial	Ogden and Hay, 1969
M-1970	Akron Mastodon	41.170000	-81.500000	12,750	500	13,597	16,506	Bone	above till in organic deposit	KCG	Post-glacial	Flint and others, 1972
M-1971	Akron Mastodon	41.170000	-81.500000	13,300	600	14,056	17,594	Wood	intertill overbank deposit, 40 cm depth	KCG	Post-glacial	Flint and others, 1972
ISGS-1054	American Aggregates	39.858800	-84.808100	>50000				Wood	organics over silt	Miami-Scioto	Unclear	Tom Lowell, personal communication
DIC-200	Anderson Run	39.367026	-83.066421	19,600				Wood	organic-rich sandy diamicton	Miami-Scioto	Glacial	Lowell, Scioto Lobe Map
CWR-190	Anderson Run	39.367026	-83.066421	16,590	570	18,730	21,462	Wood	lacustrine	Miami-Scioto	Glacial	Quinn and Goldthwait, 1985
W-331	Anderson Run	39.367026	-83.066421	17,980	400	20,695	22,599	Wood (spruce)	till	Miami-Scioto	Interstadial	Goldthwait, 1958
UGa-666	Ansonia	40.200000	-84.683300	12,190	215	13,582	14,995	Wood (Picea)	silt	Miami-Scioto	Post-glacial	Mills, 1975
ISGS-473	Avon-Sheffield	41.442797	-82.047018	13,050	100	15,286	15,953	Wood	in till, to show variability of logs in till	Erie	Ancestral Lake Erie	Totten, 1985
I-10184	Bantas Fork No.1	39.762000	-84.585000	20,500	420	23,718	25,658	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Soller, 1978; Goldthwait and others, 1981
ISGS-726A	Bantas Fork No.1	39.745278	-84.568056	44,800	1,700			Organic silt	in till	Miami-Scioto	Interstadial	Tom Lowell, personal communication
ISGS-726	Bantas Fork No.1	39.762000	-84.585000	44,800	1,700			Wood	organic-rich sandy diamicton	Miami-Scioto	Interstadial	Goldthwait and others, 1981
ISGS-250	Battaglia Bog	41.144000	-81.329000	13,640	210	15,868	17,098	Clay gyttja	below till	KCG	Post-glacial	Shane, 1987
ISGS-252	Battaglia Bog	41.144000	-81.329000	15,570	340	18,055	19,616	Clay	at till/organic contact	KCG	Post-glacial	Shane 1975; 1987
ISGS-2642	Beckett Road	39.270000	-84.450000	19,780	170	23,386	24,237	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2643	Beckett Road	39.270000	-84.450000	19,830	190	23,404	24,329	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2645	Beckett Road	39.270000	-84.450000	19,800	160	23,432	24,233	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2646	Beckett Road	39.270000	-84.450000	19,620	150	23,193	24,022	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2652	Beckett Road	39.270000	-84.450000	19,670	230	23,077	24,213	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
Y-240	Bellevue	41.325000	-82.882000	12,800	250	14,225	15,970	Wood	in till, some snails present	Erie	Ancestral Lake Erie	Goldthwait, 1958
AA-53435	Bellfontaine	40.405500	-83.684300	15,564	88	18,627	18,993	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
OWU-52	Bier's Run	39.388499	-83.085067	17,880	224	21,022	22,245	Wood (Picea)	silt	Miami-Scioto	Glacial	Ogden and Hay, 1964
Beta-11549	Bier's Run	39.388499	-83.085067	18,090	230	21,321	22,436	Unclear	in till	Miami-Scioto	Glacial	Miller, 1986
W-91	Bier's Run	39.388499	-83.085067	18,050	400	20,785	22,709	Wood (Picea)	silt	Miami-Scioto	Glacial	Goldthwait, 1958
OWU-331	Bier's Run	39.388499	-83.085067	18,000	400	20,717	22,628	Picea wood	in till	Miami-Scioto	Glacial	Goldthwait and others, 1981
UGa-6705	Bier's Run 2	39.384400	-83.075700	18,520	200	21,892	22,837	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6702	Bier's Run 2	39.384400	-83.075700	18,520	245	21,823	22,944	Wood (log with branches)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6703	Bier's Run 2	39.384400	-83.075700	18,340	290	21,466	22,845	Wood (log with branches)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6704	Bier's Run 2	39.384400	-83.075700	18,120	180	21,503	22,392	Wood (log with bark)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6699	Bier's Run 2	39.384400	-83.075700	25,400				Total carbon	in till	Miami-Scioto	Interstadial	Lowell, Scioto Lobe Map
UGa-6700	Bier's Run 2	39.384400	-83.075700	25,400				Total carbon	in till	Miami-Scioto	Interstadial	Lowell, Scioto Lobe Map
UGa-6701	Bier's Run 2	39.384400	-83.075700	23,400				Total carbon	in till	Miami-Scioto	Interstadial	Lowell, Scioto Lobe Map
W-2459	Big Branch	39.281295	-83.471442	20,400				Wood	organic silt in outwash, Silt with low organic content	Miami-Scioto	Glacial	Lowell, Scioto Lobe Map
AA53439	Brewster Site	40.703000	-81.615000	20,930	160	24,703	25,651	Macrofossils (twigs and seeds)	in till	KCG	Post-glacial	Glover and others, 2011
ISGS-1480	Brown & Sons Nursery	41.776667	-81.121389	13,380	140	16,695	16,526	Wood (log)	organics over silt	Erie	Ancestral Lake Erie	Szabo and others, 1988 (Section description. Date mentioned); Data on file at the Illinois State Geological Survey

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	#	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
AA-53431	Brown's Bog	40.681771	-82.064280	14,660	83	17,606	18,056	Plant macrofossils	in till	KCG	Post-glacial	Lutz and others, 2007
Beta-190456	Brown's Bog	40.681771	-82.064280	15,080	60	18,108	18,518	Wood	organics over silt	KCG	Post-glacial	Bailey, 2003; Lutz and others, 2007
SL-1361	Brown's Lake	40.680703	-82.062235	16,680	1,240	17,182	23,120	Clay	at till/organic contact	KCG	Post-glacial	Shane, 1987
OWU-304	Brown's Lake Bog	40.681771	-82.064280	10,595	370	11,267	13,119	Unclear	in till	KCG	Post-glacial	Odgen and Hay, 1969
OWU-286	Brown's Run	39.574000	-84.425000	18,400	430	21,121	23,250	Wood (Picea log)	in till	Miami-Scioto	Glacial	Wright, 1970; Odgen and Hay, 1969
DIC-2608	Brown's Run	39.574000	-84.425000	20,100	265	23,539	24,953	Organic silt	in till	Miami-Scioto	Interstadial	Wright, 1970; Miller, 1986
ISGS-1053	Brown's Run	39.574000	-84.425000	20,590	190	24,281	25,316	Organic silt	in till	Miami-Scioto	Interstadial	Wright, 1970; Liu and others, 1986
ISGS-1057	Brown's Run	39.574000	-84.425000	20,480	340	23,874	25,515	Organic silt	in till	Miami-Scioto	Interstadial	Wright, 1970; Liu and others, 1986
Beta-102848	Brushy Fork Valley	40.023921	-82.231944	21,660	120	25,707	26,128	Fine organic material	below till in organic bed	Miami-Scioto	Glacial	Frolking and Pachell, 2006
UGa-6889	Buckskin Creek	39.321650	-83.328100	21,300				Wood	organics in till sequence	Miami-Scioto	Glacial	Lowell, Scioto Lobe Map
ISGS-1664	Bucyrus Bog	40.797552	-82.929938	17,240	340	19,997	21,736	Clay gyttja	below till in organic bed	Huron-Erie	Post-glacial	Shane, 1989b
ISGS-1663	Bucyrus Bog	40.797552	-82.929938	12,890	160	14,856	15,935	Peaty gyttja	in till	Huron-Erie	Post-glacial	Shane, 1989a
Beta-73190	Bunnel Road	39.393611	-84.286111	14,130	180	16,595	17,664	Bulk organic	alluvial silt	Miami-Scioto	Glacial	Tom Lowell, personal communication
Beta-72822 (2)	Bunnel Road	39.393611	-84.286111	18,230	360	21,105	22,859	Bulk organic	at silt/regolith contact; drift-glaciolacustrine outside boundary of glaciation	Miami-Scioto	Glacial	Tom Lowell, personal communication
Beta-72286	Bunnel Road	39.393611	-84.286111	14,470	70	17,434	17,883	Plant fragments	in till	Miami-Scioto	Glacial	Tom Lowell, personal communication
CAMS 27131	Bunnel Road	39.393611	-84.286111	17,469	130	20,715	21,497	Plant fragments	in till	Miami-Scioto	Glacial	Tom Lowell, personal communication
Beta-72822	Bunnel Road	39.392982	-84.288506	18,230	360	21,105	22,859	Bulk organic	at till/organic contact	Miami-Scioto	Post-glacial	Lowell, 2001
Beta-72823	Bunnel Road	39.392982	-84.288506	20,110	170	23,720	24,590	Bulk organic	at till/organic contact	Miami-Scioto	Post-glacial	Lowell, 2001
Beta-85430	Bunnel Road	39.392982	-84.288506	17,200	150	20,346	21,180	Plant fragments	in till	Miami-Scioto	Post-glacial	Lowell, 2001
CAMS-27131	Bunnel Road	39.392982	-84.288506	17,469	130	20,715	21,497	Plant fragments	in till	Miami-Scioto	Post-glacial	Lowell, 2001
Beta-72287	Bunnel Road	39.392982	-84.288506	18,460	90	22,034	22,524	Plant fragments	in till	Miami-Scioto	Post-glacial	Hinnefeld, 1996; Lowell, 2001
PITT-0830	Burning Tree Mastodon Site	39.979000	-82.453000	10,860	70	12,665	12,910	Bone, collagen fraction	alluvial sand	Miami-Scioto	Post-glacial	Lepper and others, 1991
PITT-0832	Burning Tree Mastodon Site	39.979000	-82.453000	11,450	70	13,140	13,438	Organics	in till	Miami-Scioto	Post-glacial	Lepper and others, 1991
PITT-0833	Burning Tree Mastodon Site	39.979000	-82.453000	12,230	70	13,906	14,499	Peat/soil	in till	Miami-Scioto	Post-glacial	Lepper and others, 1991
Beta-382411/ ETH-6758	Burning Tree Mastodon Site	39.979000	-82.453000	11,660	120	13,273	13,746	Twigs	in till	Miami-Scioto	Post-glacial	Lepper and others, 1991
PITT-0841	Burning Tree Mastodon Site	39.979000	-82.453000	11,470	90	13,126	13,469	Wood (Beaver gnawed)	organics over silt	Miami-Scioto	Post-glacial	Lepper and others, 1991
Beta-35045	Burning Tree Mastodon Site	39.979000	-82.453000	11,720	110	13,329	13,762	Wood (Picea)	silt	Miami-Scioto	Post-glacial	Lepper and others, 1991
Beta-35046	Burning Tree Mastodon Site	39.979000	-82.453000	12,620	90	14,454	15,280	Wood (Picea)	silt	Miami-Scioto	Post-glacial	Lepper and others, 1991
CAMS-27129	Carter II	40.212200	-84.675600	15,630	150	18,574	19,244	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
DIC-243; Dicar- 243	Carter Site	40.216700	-84.233300	14,810	170	17,603	18,428	Clay gyttja	below till in organic bed	Miami-Scioto	Post-glacial	Shane, 1987
Beta-99659	Cartnal-Postle	40.063070	-82.259396	33,440	1,060	35,264	40,065	Compacted leaf and stem fragments	below till in organic bed	Miami-Scioto	Glacial	Frolking and Pachell, 2006
OWU-168B	Casalia Prairie	41.400000	-82.816667	14,790	420	16,889	18,902	Moss (<i>Drepanocladus fluitans</i>)	in till	Erie	Ancestral Lake Erie	Odgen and Hay, 1967
C-526	Castalia Swamp	41.415000	-82.819000	8,513	500	8,978	10,223	Wood (stump in place)	varved proglacial clays, glaciolacustrine	Erie	Ancestral Lake Erie	Goldthwait, 1958
W-2465	Cedar Run	39.300690	-83.430730	20,800				Wood	organic silt in sand and gravel	Miami-Scioto	Glacial	Lowell, Scioto Lobe Map
GSC-330	Central Lake Erie	41.750000	-81.920000	10,200	180	11,267	12,427	Wood	in till, exposed less than one week	Erie	Ancestral Lake Erie	Lewis and others, 1966; Lowdon and others, 1967
OWU-487	Cleveland	41.502812	-81.671520	10,890	275	12,056	13,316	Wood fragments	in channel sand, below beach gravel	Erie	Ancestral Lake Erie	Odgen and Hay, 1973
W-33	Cleveland area (Canal S & G Co.)	41.406287	-81.625200	13,360	500	14,357	17,476	Wood (cedar)	organics over silt	Erie	Ancestral Lake Erie	Suess, 1954; Flint and Rubin, 1955; Goldthwait, 1958

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
PITT-0512	Clough Creek	39.106000	-84.374000	>45000				Unclear	in till	Miami-Scioto	Glacial	Miller and others, 1992; Lowell and Brockman, 1994
PITT-0511	Clough Creek	39.106000	-84.374000	>45000				Unclear	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
AA-45069B	Clyde Site	40.033000	-83.561000	15,350	100	18,382	18,817	Macrofossils (twigs and seeds)	in silt	Miami-Scioto	Post-glacial	Glover and others, 2011; Heath and others, 2018
OWU-194	Cole Mastodon	40.783333	-81.033333	9,460	305	9,894	11,723	Wood (Picea)	silt	KCG	Post-glacial	Ogden and Hay, 1967
Y-449	Columbus at 4th and Long	39.964692	-83.002864	23,000	250	26,704	27,705	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Goldthwait, 1958; Deevey and others, 1959
Y-448	Cuba (Cuba 1)	39.346960	-83.854937	18,500	420	21,330	23,388	Wood (log)	organics over silt in cave	Miami-Scioto	Glacial	Goldthwait, 1958; Deevey and others, 1959
ISGS-3232	Cuba Gully	39.378084	-83.872742	20,420	120	24,197	25,011	Wood (tree limb)	varved proglacial clays, glaciolacustrine	Miami-Scioto	Interstadial	Lowell, personal communication; and personal communication with IGSS radiocarbon lab
ISGS-3233	Cuba Gully	39.378084	-83.872742	20,240	130	23,951	24,722	Wood (tree limb)	varved proglacial clays, glaciolacustrine	Miami-Scioto	Interstadial	Lowell, personal communication; and personal communication with IGSS radiocarbon lab
ISGS-3234	Cuba Gully	39.378084	-83.872742	20,550	280	24,063	25,459	Wood (tree limb)	varved proglacial clays, glaciolacustrine	Miami-Scioto	Interstadial	Lowell, personal communication; and personal communication with IGSS radiocarbon lab
Y-450	Darttown	39.491000	-84.666000	15,560	230	18,326	19,397	Wood (Picea log)	silt	Miami-Scioto	Glacial	Goldthwait, 1958; Deevey and others, 1959
ISGS-2618	Dimmick Road	39.270000	-84.450000	19,730	140	23,391	24,114	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2619	Dimmick Road	39.270000	-84.450000	19,520	180	23,025	23,960	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2620	Dimmick Road	39.270000	-84.450000	19,450	190	22,941	23,909	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2621	Dimmick Road	39.270000	-84.450000	19,410	140	22,975	23,751	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2624	Dimmick Road	39.270000	-84.450000	19,500	270	22,823	24,119	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2625	Dimmick Road	39.270000	-84.450000	19,640	200	23,100	24,116	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-761	Doty's Highbank	39.550900	-84.732500	20,210	260	23,685	25,076	Wood (Picea stump)	silt	Miami-Scioto	Glacial	Goldthwait and others, 1981; Liu and others, 1986
ISGS-604	Doty's Highbank	39.550900	-84.732500	21,070	100	25,160	25,668	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Goldthwait and others, 1981; Liu and Coleman, 1981
I-10184 (I-10, 184)	Doty's Highbank	39.550900	-84.732500	20,500	420	23,718	25,658	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Goldthwait and others, 1981
I-10185 (I-10, 185)	Doty's Highbank	39.550900	-84.732500	21,250	440	24,406	26,383	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Goldthwait and others, 1981
QL-1373	Doty's Highbank	39.550900	-84.732500	21,350	60	25,528	25,855	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Goldthwait and others, 1981
PITT-0936	Doty's Highbank	39.550900	-84.732500	20,820	140	24,590	25,494	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Ekberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
PITT-0937	Doty's Highbank	39.550900	-84.732500	22,240	190	26,054	27,041	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Ekberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
PITT-0935	Doty's Highbank	39.550900	-84.732500	20,520	120	24,332	25,128	Wood (log)	peat	Miami-Scioto	Glacial	Eckberg, 1991; Ekberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
QL-1372	Doty's Highbank	39.550900	-84.732500	21,500	60	25,658	25,956	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Goldthwait and others, 1981
L-653C (2)	Doty's Highbank	39.550900	-84.732500	19,400	250	22,750	23,980	Unclear	in till	Miami-Scioto	Unclear	R.P. Goldthwait, unpublished personal files, cited in Lowell and Brockman, 1994
DIC-47	Doty's Highbank	39.550900	-84.732500	24,440	560	27,516	29,684	Wood (log)	sand and gravel in till	Miami-Scioto	Unclear	Durrell, 1961; Eckberg, 1991; Sumodi, 1974; Goldthwait and others, 1981
L-653C	Doty's Highbank	39.550900	-84.732500	21,000	800	23,415	27,004	Unclear	in till	Miami-Scioto	Unclear	Dreimanis and Goldthwait, 1973
UGa-6711	Dry Run	39.400000	-83.000000	18,240	180	21,653	22,463	Organic silt	in till	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6709	Dry Run	39.400000	-83.000000	17,590	210	20,708	21,828	Wood	lacustrine silts on moraine	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6710	Dry Run	39.400000	-83.000000	18,490	180	21,890	22,744	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6706	Dry Run	39.400000	-83.000000	18,750	260	22,002	23,276	Wood (log)	organics under till	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6707	Dry Run	39.400000	-83.000000	18,800	290	22,021	23,410	Wood (macerated)	silt	Miami-Scioto	Glacial	Lowell and others, 1999
UGa-6708	Dry Run	39.400000	-83.000000	18,520	280	21,723	23,026	Wood fragments	in till	Miami-Scioto	Glacial	Lowell and others, 1999
ISGS-922	E Branch Chagrin R Grave	41.562500	-81.141667	9,360	100	10,253	10,795	Wood	in till below ISGS-764	KCG	Unclear	Totten, 1988
W-152	E. Branch Honey Creek	39.983000	-83.993000	>40000				Leaves and twigs; organics	in silt	Miami-Scioto	Glacial	Goldthwait, 1958
I-4795	East Fork	39.375358	-83.812082	19,800				Wood	organic silt	Miami-Scioto	Glacial	Lowell, Scioto Lobe Map

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
WIS-2048	East Twin Lake	41.200000	-81.333300	13,660	140	16,091	16,952	Gytija	in gravel	KCG	Post-glacial	Shane, 1989a; Shane and Anderson, 1993
AA-45069	Eckurd's Pond	40.033000	-83.561000	15,810	140	18,785	19,457	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Wiles and others, 2002
AA-53442	Edgar Pond	40.107800	-84.730100	16,010	100	19,025	19,579	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
W-198	Edon	41.634023	-84.766148	14,300	450	16,147	18,456	Wood	intertill overbank deposit, 86 cm depth	Huron-Erie	Post-glacial	Goldthwait, 1958; Rubin and Suess, 1955
GrN-4398	Etna Township	39.955000	-82.761000	>53000				Wood and twigs	wood from horizon of twigs and logs	Miami-Scioto	Glacial	Vogel and Waterbolk, 1972
ISGS-44	Fall Creek	39.263054	-83.549968	20,910	240	25,720	24,516	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey; Geological Society of America, 1969 (Guidebook)
AA-45069A	Farm Pond	40.075000	-83.668000	15,810	140	18,785	19,457	Macrofossils (twigs and seeds)	in silt between gravels	Miami-Scioto	Post-glacial	Glover and others, 2011; Heath and others, 2018
OWU-257	Fayette County core no. B-16	39.604900	-83.634124	19,735	475	22,618	24,964	Organic silt with plant fragments	in till	Miami-Scioto	Interstadial	Ogden and Hay, 1969
DAL-14	Fayette County Core no. B-9	39.604900	-83.634124	20,700				Total carbon	in till	Miami-Scioto	Interstadial	Lowell, Scioto Lobe Map
OWU-488	Fayette County core no. B-9	39.604900	-83.634124	19,303	1,080	20,751	25,735	Total carbon / charcoal in silt	in till	Miami-Scioto	Interstadial	Ogden and Hay, 1973
OWU-256	Fayette County core no. B-9	39.604900	-83.634124	17,340	390	19,982	21,934	Total carbon/ organic silt with plant fragments	in till	Miami-Scioto	Interstadial	Ogden and Hay, 1969
DIC-41	Frederick-Eaton Cut	39.732360	-84.639616	22,230	415	25,783	27,361	Unclear	in till	Miami-Scioto	Glacial	Thomas, 1965; Thomas, 1970; Lowell and Brockman, 1994
ISGS-116	Frederick-Eaton Cut	39.732360	-84.639616	21,940	130	25,898	26,484	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Thomas, 1965; Thomas, 1970; Coleman, 1974; Lowell and Brockman, 1994
CAMS-2409	Fudger Lake	40.100000	-83.533000	11,680	90	13,329	13,725	Wood (conifer)	organics over silt	Miami-Scioto	Post-glacial	Shane, 1991; Shane and Anderson, 1993
DIC-32	Garfield Heights	41.423600	-81.588900	22,210	120	26,083	26,846	Twigs and wood fragments	in till	KCG	Interstadial	Sumodi, 1974
DIC-35	Garfield Heights	41.423600	-81.588900	23,560	630	26,430	28,905	Twigs and wood fragments	in till	KCG	Interstadial	Sumodi, 1974
DIC-38	Garfield Heights	41.423600	-81.588900	24,520	730	27,384	30,315	Wood (log)	silt	KCG	Interstadial	Sumodi, 1974
W-71	Garfield Heights	41.423600	-81.588900	24,600	800	27,381	30,535	Wood	marl	KCG	Interstadial	Goldthwait, 1958; Suess, 1954
DIC-63	Garfield Heights	41.423600	-81.588900	23,430	415	26,805	28,446	Wood (log)	silt	KCG	Interstadial	Fullerton, 1986
L-397E	Germanatown	39.618000	-84.353000	>44000				Unclear	in till	Miami-Scioto	Glacial	Olsen and Broecker, 1959
W-96	Germanatown	39.618000	-84.353000	>34000				Wood (logs in peat)	silt	Miami-Scioto	Interstadial	Goldthwait, 1958; Suess, 1954
PITT-0928	Glendale (day care center)	39.229400	-84.399800	35,000	880	37,389	41,452	Organics	in till	Miami-Scioto	Glacial	Lowell and Brockmen, 1994; Lowell, 1995; Savage, 1991 (section description)
PITT-0929	Glendale (day care center)	39.229400	-84.399800	39,800	1,450			Organics	in till	Miami-Scioto	Glacial	Lowell and Brockmen, 1994; Lowell, 1995; Savage, 1991 (section description)
AA-45073	Glory Hole	40.048000	-83.652600	15,503	91	18,572	18,934	Unclear	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
Beta-91907	Granville Well Field	40.066646	-82.531014	15,620	110	18,642	19,133	Wood	lacustrine	Miami-Scioto	Post-glacial	Frolking and Szabo, 1998
ISGS-764	Gregory Creek	39.408333	-84.422222	19,350	130	22,942	23,649	Wood (red Picea)	soil, below till in silt and clay	Miami-Scioto	Glacial	Newdale, 1980; Liu and others, 1986; Lowell and Brockman, 1994
CAMS-13631	Gregory Creek	39.408333	-84.422222	20,120	120	23,887	24,488	Plant fragments	in till	Miami-Scioto	Glacial	Lowell, 2001
CAMS-13632	Gregory Creek	39.408333	-84.422222	20,240	90	24,041	24,556	Plant fragments	in till	Miami-Scioto	Glacial	Lowell, 2001
CAMS-13633	Gregory Creek	39.408333	-84.422222	20,200	100	23,993	24,530	Plant fragments	in till	Miami-Scioto	Glacial	Lowell, 2001
CAMS-13634	Gregory Creek	39.408333	-84.422222	20,060	100	23,856	24,396	Plant fragments	in till	Miami-Scioto	Glacial	Lowell, 2001
UGa-6890	Gregory Creek	39.408333	-84.422222	>49000				Wood	organic	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
Beta-258945	Griffith Hines Pit	41.568247	-83.829941	13,430	90	15,870	16,456	Wood fragments in organic silts	within organic mud, Below ripple drift, above coarse sand	Erie	Ancestral Lake Erie	Campbell and others, 2011
W-724	Hamilton	39.416000	-84.561000	19,100	300	22,393	23,728	Wood (log)	organics under till	Miami-Scioto	Glacial	Durrell and others, 1961; Rubin and Alexander, 1960
L-467	Hamilton	39.416700	-84.550000	19,800	300	23,046	24,513	Wood (log)	orgnic silt below till	Miami-Scioto	Glacial	Olson and Broecker, 1961
W-738	Hamilton	39.416000	-84.561000	18,750	300	21,938	23,368	Carbonaceous matter	at till/organic contact	Miami-Scioto	Interstadial	Durrell and others, 1961; Rubin and Alexander, 1960
W-127	Harrisburg	39.803417	-83.179755	21,600	1,000	23,631	27,712	Wood (log)	peat lens on top of clay layer	Miami-Scioto	Glacial	Rubin and Seuss, 1955
ETH-30202	Hartwell/Hartzell	40.172600	-84.193900	15,780	110	18,791	19,345	Wood	lacustrine	Miami-Scioto	Post-glacial	Pritchard, 2006

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
ETH-30203	Hartwell/Hartzell	40.172600	-84.193900	15,710	100	18,749	19,214	Wood	lacustrine	Miami-Scioto	Post-glacial	Pritchard, 2006
OWU-101	Heath Gravel Pit	40.022475	-82.503586	3,970	70	4,226	4,623	Wood (ash)	organics over silt	Miami-Scioto	Post-glacial	Ogden and Hay, 1965
L-397C	Hole's Creek	39.672000	-84.204000	20,000	500	22,899	25,332	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Gooding, 1975
C-508	Hole's Creek	39.672000	-84.204000	>15,000				Unclear	in till	Miami-Scioto	Glacial	Goldthwait, 1958; Lowell and Brockman, 1994
ISGS-2960	Huffman Park	39.661200	-84.202900	44,300	2,800	43,352	[50000]	Wood	organic silt, upper part of organic silts	Miami-Scioto	Glacial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-2961	Huffman Park	39.661200	-84.202900	44,800	3,200	43,112	[50000]	Wood	organics over silt, below clay	Miami-Scioto	Glacial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-2963	Huffman Park	39.661200	-84.202900	44,500	3,100	43,074	[50000]	Wood	organics over silt, below clay	Miami-Scioto	Glacial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-2964	Huffman Park	39.661200	-84.202900	44,000	2,900	43,042	[50000]	Wood	organics over silt, below clay	Miami-Scioto	Glacial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-3240	Huffman Park	39.661200	-84.202900	42,100	1,800	42,634	49,038	Wood	organics over silt, below clay	Miami-Scioto	Glacial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-2962	Huffman Park	39.661200	-84.202900	44,600	2,200	44,394	[50000]	Wood	organics over silt, organic-ich sandy diamicton	Miami-Scioto	Glacial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-3239	Huffman Park	39.661200	-84.202900	43,480	890	45,073	48,747	Wood	organics over silt, organic-ich sandy diamicton	Miami-Scioto	Glacial	Tom Lowell, personal communication; Lowell and others, 2018
W-773	Humboldt	39.280000	-83.316667	>35000				Peat	in till	Miami-Scioto	Interstadial	Rubin and Alexander, 1960; Goldthwait, 1955 p. 47
AA-53423	Hunt's Bog	40.191000	-84.775000	16,128	90	19,189	19,719	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
ISGS-3104	Jenkins Road	39.402710	-83.801504	20,950	290	25,823	24,472	Peat	in till	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
OWU-141	Johnstown Mastadon	40.150000	-82.683333	10,190	160	11,277	12,408	Wood (Picea)	silt	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
I-3716	Jonesboro	39.330841	-83.830547	24,000				Peat	in till	Miami-Scioto	Interstadial	Lowell, Scioto Lobe Map
I-3715	Jonesboro	39.330841	-83.830547	20,700				Peat	in till	Miami-Scioto	Interstadial	Lowell, Scioto Lobe Map
ISGS-1679	Ladd Lake	41.417000	-84.750000	14,680	310	17,077	18,592	Clay gyttja	below till in organic bed	Huron-Erie	Post-glacial	Shane and Anderson, 1993
CAMS-27130	Lattimer	40.252600	-83.812300	15,770	80	18,832	19,240	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
I-14856	Lee's Creek	39.283600	-84.767600	19,900	370	23,028	24,943	Wood (stump)	in gravel below till	Miami-Scioto	Glacial	Lowell, unpublished; Lowell, 1995
I-14859	Lee's Creek	39.283600	-84.767600	19,900	370	23,028	24,943	Wood (stump)	in gravel below till	Miami-Scioto	Glacial	Lowell and Brockman, 1994
OWU-83	Liberty	40.197979	-83.089702	14,780	192	17,524	18,445	Wood (Picea)	silt	Miami-Scioto	Glacial	Ogden and Hay, 1965
ISGS-348	Lodi	41.010800	-81.977200	14,050	75	16,780	17,379	Wood	intertill overbank deposit, 58 cm depth	KCG	Post-glacial	Totten, 1976 (abstract); Mickelson and others, 1983, pg. 24)
ISGS-3224	London Correctional Institution - Core 6	39.905777	-83.481339	28,390	330	31,460	33,253	Wood	N/A	Miami-Scioto	Glacial	Lloyd, 1998; Froliking and Szabo, 1998; Szabo and others, 2011
Beta-265090	Long Lake	40.666000	-82.136000	14,890	90	17,880	18,345	Plant macrofossils	in till	KCG	Post-glacial	Glover and others, 2011
AA53428	Mastodon	40.854000	-80.941000	14,960	82	17,945	18,400	Macrofossils (twigs and seeds)	in silt	KCG	Post-glacial	Glover and others, 2011
Beta-190863	Mastodon II	40.011900	-83.452900	16,050	90	19,092	19,608	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
AA-45079	Mechanicsburg	40.053000	-83.602700	16,170	97	19,218	19,808	Unclear	in till	Miami-Scioto	Post-glacial	Wiles and others, 2002; Glover and others, 2011
AA-45072	Mechanicsburg Peat Bog	40.082000	-83.564000	15,350	100	18,382	18,817	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Wiles and others, 2002
AA-45078	Mike's Place	40.602100	-83.817700	14,600	91	17,537	18,006	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Wiles and others, 2002; Glover and others, 2011
ISGS-2640	Milford Cemetery	39.492800	-84.676800	19,120	160	22,598	23,470	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994
ISGS-2641	Milford Cemetery	39.492800	-84.676800	19,660	180	23,167	24,108	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994
ISGS-2644	Milford Cemetery	39.492800	-84.676800	19,080	170	22,546	23,440	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994
PITT-0930	Milford Cemetery	39.492800	-84.676800	18,610	100	22,273	22,742	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Ekberg and others, 1993; Lowell, 2001
PITT-0931	Milford Cemetery	39.492800	-84.676800	19,030	110	22,565	23,279	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Ekberg and others, 1993; Lowell, 2001
OS-141076	Milford Cemetery	39.492800	-84.676800	20,400	120	24,170	24,984	Gastropod (<i>Succineidae</i> sp.)	colluvium below organic silt	Miami-Scioto	Interstadial	Nash, personal communication, 2019
OS-141075	Milford Cemetery	39.492800	-84.676800	20,600	120	24,428	25,207	Gastropod (<i>Succineidae</i> sp.)	fine laminated sand zone	Miami-Scioto	Interstadial	Nash, personal communication, 2019

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	#	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
OS-141077	Milford Cemetery	39.492800	-84.676800	20,700	130	24,498	25,318	Gastropod (<i>Succineidae</i> sp.)	fine sand and silt	Miami-Scioto	Interstadial	Nash, personal communication, 2019
ISGS-2764	Milford Cemetery	39.492800	-84.676800	19,440	180	22,948	23,878	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2769	Milford Cemetery	39.492800	-84.676800	20,340	170	24,020	25,020	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
OWU-398	Mt. Gilead Beaver Site	40.500000	-82.866667	7,590	200	8,005	8,796	Wood (<i>Fraxinus</i>)	organics over silt	Miami-Scioto	Post-glacial	Ogden and Hay, 1973
AA-45075	Murphy's Bog	40.064000	-83.675000	16,090	100	19,112	19,685	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Wiles and others, 2002
I-6182	Muttonville	39.658753	-84.686006	19,620	470	22,489	24,755	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Oldfield, 1977; Gooding, 1975
AA53419	Nashville	40.093000	-84.743000	15,869	91	18,906	19,418	Macrofossils (twigs and seeds)	in silt, lower bracket on silts, age seems too old, vivianite within sample	Miami-Scioto	Post-glacial	Glover and others, 2011
OWU-75	Neotoma Valley - Clear Creek Metro Park	39.601761	-82.560913	32,660	1,300	34,179	39,710	Wood (pine)	silty clay; forest bed	Miami-Scioto	Glacial	Ogden and Hay, 1965
OWU-122	Neotoma Valley - Clear Creek Metro Park	39.601761	-82.560913	3,380	61	3,467	3,732	Wood (oak)	silt	Miami-Scioto	Post-glacial	Ogden and Hay, 1965
ISGS-1677	Neville Marsh	40.546000	-83.833000	12,210	210	13,699	15,029	Gyttja	gravel between till	Miami-Scioto	Post-glacial	Shane and Anderson, 1993
I-8928	New Paris Water Works	39.857432	-84.776435	23,450	500	26,619	28,586	Bulk organic	at till/organic contact	Miami-Scioto	Interstadial	Gooding, 1975; Oldfield, 1977; Franzi, 1980
I-7345	New Paris Water Works	39.857432	-84.776435	23,300	500	26,455	28,449	Bulk organic	at till/organic contact	Miami-Scioto	Interstadial	Gooding, 1975; Oldfield, 1977
I-7300	New Paris Water Works (but 50 yards upstream)	39.857432	-84.776435	>40000				Organic silt	in till	Miami-Scioto	Interstadial	Oldfield, 1977; Goldthwait and others, 1981; Gooding, 1975; Lowel and Brockman, 1994
W-88	Newark	40.014800	-82.465971	21,400	600	24,278	27,016	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Suess, 1954; Flint and Rubin, 1955
Beta-158292	Newell Lake	40.283700	-83.810800	12,130	200	13,551	14,882	Wood	organics over silt	Miami-Scioto	Post-glacial	Wiles and others, 2002
UGa-6698	North Fork	39.358528	-83.091898	17,490	230	20,557	21,771	Wood (log)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1999
Y-526	Northern Lights	40.037990	-82.964640	11,480	160	13,038	13,621	Unclear	Unclear	Miami-Scioto	Post-glacial	Ogden, 1966
OWU-126	Novchy Mastodon	41.495833	-81.352778	10,654	188	12,005	12,966	Peat and wood	in till	KCG	Post-glacial	Ogden and Hay, 1965
ISGS-42	Olive Moraine	39.246817	-83.581344	21,800	200	26,491	25,696	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey; Geological Society of America, 1969 (Guidebook)
OS-141073	Oxford	39.497300	-84.731600	21,200	140	25,219	25,825	Gastropod (<i>Succineidae</i> sp.)	fine sands in deltaic sands	Miami-Scioto	Interstadial	Nash, personal communication, 2019
OS-141074	Oxford	39.497300	-84.731600	21,200	140	25,219	25,825	Gastropod (<i>Succineidae</i> sp.)	forest bed on sand and gravel below till	Miami-Scioto	Interstadial	Nash, personal communication, 2019
ISGS-2899	Oxford Cut West; Oxford West	39.497777	-84.734928	22,130	160	25,978	26,819	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2900	Oxford Cut West; Oxford West	39.497777	-84.734928	22,080	180	25,920	26,796	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2901	Oxford Cut West; Oxford West	39.497777	-84.734928	21,790	290	25,492	26,737	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2902	Oxford Cut West; Oxford West	39.497777	-84.734928	22,260	220	26,037	27,100	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2903	Oxford Cut West; Oxford West	39.497777	-84.734928	22,080	220	25,893	26,929	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2904	Oxford Cut West; Oxford West	39.497777	-84.734928	22,260	230	26,026	27,114	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2905	Oxford Cut West; Oxford West	39.497777	-84.734928	21,650	190	25,565	26,283	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2906	Oxford Cut West; Oxford West	39.497777	-84.734928	22,070	220	25,885	26,916	Organic silt	in till	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2895	Oxford Cut West; Oxford West	39.497777	-84.734928	20,000	170	23,631	24,460	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2896	Oxford Cut West; Oxford West	39.497777	-84.734928	20,370	200	24,010	25,122	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
ISGS-2897	Oxford Cut West; Oxford West	39.497777	-84.734928	20,290	170	23,963	24,956	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
ISGS-3069	Oxford Cut West; Oxford West	39.497777	-84.734928	20,420	170	24,115	25,116	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
ISGS-3070	Oxford Cut West; Oxford West	39.497777	-84.734928	20,230	220	23,800	25,015	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
ISGS-3071	Oxford Cut West; Oxford West	39.497777	-84.734928	20,150	160	23,788	24,634	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
ISGS-3074	Oxford Cut West; Oxford West	39.497777	-84.734928	20,040	200	23,578	24,571	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
UGa-6883	Oxford Cut West; Oxford West	39.497777	-84.734928	20,980	245	24,572	25,786	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
UGa-6885	Oxford Cut West; Oxford West	39.497777	-84.734928	18,890	165	22,407	23,171	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
UGa-6884	Oxford Cut West; Oxford West	39.497777	-84.734928	24,290	320	27,735	28,927	Wood	littoral—sand, silt, and organics	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
PITT-0626	Oxford Cut West; Oxford West	39.497777	-84.734928	19,970	140	23,658	24,372	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Ekberg, 1991; Ekberg and others, 1993; Lowell, 2001
PITT-0627	Oxford Cut West; Oxford West	39.497777	-84.734928	19,800	175	23,401	24,267	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Ekberg, 1991; Ekberg and others, 1993; Lowell, 2001
PITT-0766	Oxford Cut West; Oxford West	39.497777	-84.734928	21,680	160	25,644	26,233	Wood (log)	peaty gyttja overlying grey clay gyttja	Miami-Scioto	Glacial	Ekberg and others, 1993; Lowell, 2001
PITT-0768	Oxford Cut West; Oxford West	39.497777	-84.734928	21,550	150	25,568	26,088	Wood (log)	peaty gyttja overlying grey clay gyttja	Miami-Scioto	Glacial	Ekberg, 1991; Ekberg and others, 1993; Lowell, 2001
PITT-0624	Oxford Cut West; Oxford West	39.497777	-84.734928	20,620	180	24,332	25,326	Wood (stump)	till, Lower Shelbyville Till	Miami-Scioto	Glacial	Ekberg, 1991; Ekberg and others, 1993; Lowell, 2001
PITT-0765	Oxford Cut West; Oxford West	39.497777	-84.734928	21,240	150	25,238	25,864	Wood (stump)	unclear	Miami-Scioto	Glacial	Ekberg, 1991; Ekberg and others, 1993; Lowell, 2001
PITT-0764	Oxford Cut West; Oxford West	39.497777	-84.734928	21,390	200	25,283	26,032	Wood (stump)	varved proglacial clays, glaciolacustrine	Miami-Scioto	Glacial	Ekberg, 1991; Ekberg and others, 1993; Lowell, 2001
PITT-0625	Oxford Cut West; Oxford West	39.497777	-84.734928	20,030	140	23,732	24,438	Wood (stump)	till, Fayette Till	Miami-Scioto	Glacial	Ekberg, 1991; Ekberg and others, 1993
PITT-0769	Oxford Cut West; Oxford West	39.497777	-84.734928	20,840	110	24,690	25,493	Wood (log)	peat between tills	Miami-Scioto	Glacial	Ekberg, 1991; Durell and others, 1961; Ekberg and others, 1993; Lowell, 2001
PITT-0767	Oxford Cut West; Oxford West	39.497777	-84.734928	21,500	150	25,521	26,056	Wood (log)	peat lens on top of clay layer	Miami-Scioto	Glacial	Ekberg, 1991; Durell and others, 1961; Ekberg and others, 1993; Lowell, 2001
DAL-5	Oxford Cut West; Oxford West	39.497777	-84.734928	25,100	1,600	26,033	32,345	Unclear	in till	Miami-Scioto	Interstadial	Mickelson and others, 1983
UGa-6893	Oxford Cut West; Oxford West	39.497777	-84.734928	20,980	250	24,563	25,792	Unclear	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2763	Oxford Cut West; Oxford West	39.497777	-84.734928	20,770	210	24,439	25,553	Wood (stump)	till, peat/soil, gravel	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2758	Oxford Cut West; Oxford West	39.497777	-84.734928	20,800	250	24,395	25,643	Wood (stump)	top of organic silts	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2757	Oxford Cut West; Oxford West	39.497777	-84.734928	20,820	210	24,485	25,598	Wood (stump)	unclear	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2760	Oxford Cut West; Oxford West	39.497777	-84.734928	20,800	210	24,466	25,580	Wood (stump)	unclear	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2761	Oxford Cut West; Oxford West	39.497777	-84.734928	20,800	200	24,483	25,564	Wood (stump)	unclear	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2762	Oxford Cut West; Oxford West	39.497777	-84.734928	20,850	200	24,525	25,609	Wood (stump)	unclear	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
Beta-12580	Oxford Cut West; Oxford West	39.497777	-84.734928	20,430	160	24,143	25,107	Organic silt	in till	Miami-Scioto	Interstadial	Ekberg, 1991; Miller, 1986
W-92	Oxford Cut West; Oxford West; Bull Run	39.497777	-84.734928	19,980	500	22,877	25,313	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Oldfield, 1977; Suess, 1954; Goldthwait, 1958
C-456	Oxford Cut West; Oxford West; Bull Run	39.497777	-84.734928	>15,000				Wood	organic	Miami-Scioto	Interstadial	Oldfield, 1977; Ekberg, 1991; Goldthwait, 1958
OWU-490	Oxford Cut West; Oxford West; Collins Creek	39.497777	-84.734928	19,535	655	22,085	25,190	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Ekberg, 1991; Ogden and Hay, 1973
PITT-0623	Oxford East	39.497300	-84.731600	19,770	110	23,496	24,096	Wood (stump)	till	Miami-Scioto	Glacial	Oldfield, 1977; Ekberg, 1991; Lowell and Brockman, 1994; Ekberg and others, 1993; Lowell, 2001
ISGS-3072	Oxford East	39.497300	-84.731600	20,200	200	23,803	24,925	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
ISGS-3073	Oxford East	39.497300	-84.731600	20,190	230	23,719	24,983	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell, 2001
UGa-6882	Oxford East	39.497300	-84.731600	20,550	240	24,127	25,369	Wood	Lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
UGa-6881	Oxford East	39.497300	-84.731600	24,210	340	27,673	28,889	Wood	littoral-sand, from base of Warren 1 beach sand	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
UGa-6886	Oxford East	39.497300	-84.731600	29,260	415	32,239	34,189	Wood	organic	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
GrN-4514	Oxford East	39.500000	-84.750000	21,340	125	25,379	25,917	Wood (log)	peat lens on top of clay layer	Miami-Scioto	Glacial	Oldfield, 1977; Ekberg, 1991; Vogel and Waterbolk, 1972; Lowell and Brockman, 1994
TO-2069	Oxford East	39.497300	-84.731600	19,880	130	23,577	24,259	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Oldfield, 1977; Ekberg, 1991; Ekberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
AA-82567	Oxford East Interstadial	39.497300	-84.731600	20,720	550	23,650	26,014	Gastropod (<i>Discus shimeki</i>)	below till in organic bed	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82568	Oxford East Interstadial	39.497300	-84.731600	20,680	540	23,639	25,966	Gastropod (<i>Discus shimeki</i>)	below till in organic bed	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82569	Oxford East Interstadial	39.497300	-84.731600	20,870	570	23,720	26,192	Gastropod (<i>Discus shimeki</i>)	below till in organic bed	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82561	Oxford East Interstadial	39.497300	-84.731600	20,240	510	23,167	25,583	Gastropod (<i>Hendersonia occulta</i>)	blue clay gyttja	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82562	Oxford East Interstadial	39.497300	-84.731600	20,420	560	23,308	25,826	Gastropod (<i>Hendersonia occulta</i>)	clay gyttja	Miami-Scioto	Interstadial	Pigati and others, 2010

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
AA-82563	Oxford East Interstadial	39.497300	-84.731600	20,520	570	23,402	25,908	Gastropod (<i>Hendersonia occulta</i>)	clay gyttja	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82573	Oxford East Interstadial	39.497300	-84.731600	20,240	520	23,144	25,596	Gastropod (<i>Pupilla muscorum</i>)	clay gyttja	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82574	Oxford East Interstadial	39.497300	-84.731600	20,200	510	23,116	25,544	Gastropod (<i>Pupilla muscorum</i>)	clay gyttja	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82572	Oxford East Interstadial	39.497300	-84.731600	20,710	550	23,641	26,006	Gastropod (<i>Pupilla muscorum</i>)	clay in deltaic sands	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82576	Oxford East Interstadial	39.497300	-84.731600	20,050	560	22,859	25,508	Gastropod (<i>Vallonia gracilicosta</i>)	from bedded sand between tills	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82575	Oxford East Interstadial	39.497300	-84.731600	20,530	600	23,327	25,960	Gastropod (<i>Vallonia gracilicosta</i>)	from contact between till and interstadial deposits below	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82579	Oxford East Interstadial	39.497300	-84.731600	20,590	550	23,526	25,919	Gastropod (<i>Vertigo modesta</i>)	from contact between till and interstadial deposits below	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82578	Oxford East Interstadial	39.497300	-84.731600	20,800	550	23,721	26,082	Gastropod (<i>Vertigo modesta</i>)	from silts in till	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82577	Oxford East Interstadial	39.497300	-84.731600	20,810	550	23,730	26,091	Gastropod (<i>Vertigo modesta</i>)	glacio-lacustrine	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82580	Oxford East Interstadial	39.497300	-84.731600	21,040	580	23,898	26,465	Gastropod (<i>Vertigo modesta</i>)	glaciolacustrine (?)	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82564	Oxford East Interstadial	39.497300	-84.731600	21,230	590	24,048	26,732	Gastropod (<i>Succineidae</i> sp.)	in till	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82565	Oxford East Interstadial	39.497300	-84.731600	21,490	650	24,286	27,172	Gastropod (<i>Succineidae</i> sp.)	in till	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82566	Oxford East Interstadial	39.497300	-84.731600	20,710	580	23,559	26,058	Gastropod (<i>Succineidae</i> sp.)	in till	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82586	Oxford East Interstadial	39.497300	-84.731600	21,130	320	24,566	25,990	Twig	in till	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82584	Oxford East Interstadial	39.497300	-84.731600	21,020	280	24,549	25,858	Bark	in till, short transport distance	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82585	Oxford East Interstadial	39.497300	-84.731600	20,620	270	24,161	25,511	Bark	in till, short transport distance	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82583	Oxford East Interstadial	39.497300	-84.731600	20,880	450	24,062	25,981	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Pigati and others, 2010
AA-82582	Oxford East Interstadial	39.497300	-84.731600	20,580	260	24,131	25,450	Wood	organics over silt	Miami-Scioto	Interstadial	Pigati and others, 2010
ISGS-2768	Oxford Low Bank	39.497419	-84.733475	>39400	860			Organic mat	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2770	Oxford Low Bank	39.497419	-84.733475	>47200	2,600			Organic mat	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2774	Oxford Low Bank	39.497419	-84.733475	>49400	2,800			Organic mat	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-2776	Oxford Low Bank	39.497419	-84.733475	>45600	1,900			Organic mat	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
W-430	Parkertown	41.340747	-82.758403	12,920	400	14,027	16,541	Wood and needles	within outwash-drift outside boundary of glaciation	Erie	Ancestral Lake Erie	Goldthwait, 1958
OWU-220	Pontius Farm Mastodon	39.447222	-82.837500	13,180	520	14,072	17,260	Wood (<i>Picea</i>)	silt	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
PITT-0229	Princeton High School	39.272185	-84.447886	19,500	115	23,102	23,827	Plant fibers, wood	in till	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
PITT-0231	Princeton High School	39.272185	-84.447886	15,740	80	18,805	19,201	Wood	lacustrine	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2614	Princeton High School	39.272185	-84.447886	19,390	180	22,895	23,826	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2615	Princeton High School	39.272185	-84.447886	19,690	180	23,212	24,149	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2616	Princeton High School	39.272185	-84.447886	19,480	190	22,970	23,938	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2617	Princeton High School	39.272185	-84.447886	19,610	180	23,111	24,050	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
PITT-0232	Princeton High School	39.272185	-84.447886	20,210	210	23,794	24,965	Wood (<i>Picea</i> log)	organics over silt	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2614 (2)	Princeton High School	39.273056	-84.447500	19,390	180	22,895	23,826	Organic debris; wood	unclear	Miami-Scioto	Glacial	Tom Lowell, personal communication
PITT-0230	Princeton High School	39.272185	-84.447886	36,650	980	39,166	42,606	Organic silt	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994; Lowell, 2001
Beta-34385	Princeton High School	39.272185	-84.447886	19,135	160	22,614	23,486	Organic debris; wood	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994; Lowell and others, 1999; Lowell, 2001
ISGS-658	Quillin Site	41.010278	-81.976389	8,790	180	9,478	10,248	Peat	in till	Miami-Scioto	Post-glacial	Tom Lowell, personal communication
ISGS-621	Quillin Site	41.010278	-81.976389	12,550	230	14,005	15,571	Wood chips	unclear	Miami-Scioto	Post-glacial	Tom Lowell, personal communication
ISGS-402	Quillin Site	41.010300	-81.976400	14,500	150	17,248	18,016	Plant litter; sand & organic debris	in till	KCG	Post-glacial	Totten, 1988; Shane and Anderson, 1993

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
ISGS-1326	Redbird Section	41.822675	-81.089422	13,730	170	16,102	17,110	Wood (single branch)	till	Erie	Ancestral Lake Erie	Szabo and others, 1988 (Section description and mention of dates)
ISGS-1329	Redbird Section	41.822675	-81.089422	13,730	130	16,206	17,007	Wood (single branch)	till	Erie	Ancestral Lake Erie	Szabo and others, 1988 (Section description and mention of dates)
OWU-198	Refugee Road Beaver Site	39.916700	-82.879400	13,020	390	14,139	16,655	Clay gyttja	below outwash?	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
OWU-196	Refugee Road Beaver Site	39.916700	-82.879400	12,600	265	13,988	15,738	Peat	in till	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
OWU-197	Refugee Road Beaver Site	39.916700	-82.879400	13,200	480	14,161	17,170	Peat	in till	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
OWU-177A	Refugee Road Beaver Site	39.916700	-82.879400	13,125	475	14,101	17,063	Wood (Picea)	silt	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
OWU-177B	Refugee Road Beaver Site	39.916700	-82.879400	12,695	240	14,131	15,783	Wood (Picea)	silt	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
ISGS-2647	Reily; Reily Cut	39.433045	-84.757704	19,910	190	23,494	24,405	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2648	Reily; Reily Cut	39.433045	-84.757704	19,660	160	23,226	24,082	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
ISGS-2649	Reily; Reily Cut	39.433045	-84.757704	19,770	240	23,167	24,352	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Lowell and Brockman, 1994; Lowell, 2001
A-6444	Reily; Reily Cut	39.433045	-84.757704	20,140	285	23,550	25,052	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Eckberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
PITT-0932	Reily; Reily Cut	39.433045	-84.757704	23,090	210	26,995	27,734	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Eckberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
PITT-0933	Reily; Reily Cut	39.433045	-84.757704	18,780	130	22,395	22,963	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Eckberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
PITT-0934	Reily; Reily Cut	39.433045	-84.757704	20,290	120	24,033	24,807	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Eckberg, 1991; Eckberg and others, 1993; Lowell and Brockman, 1994; Lowell, 2001
PITT-2647	Reily; Reily Cut	39.433045	-84.757704	19,910	190	23,494	24,405	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
PITT-2648	Reily; Reily Cut	39.433045	-84.757704	19,660	160	23,226	24,082	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
PITT-2649	Reily; Reily Cut	39.433045	-84.757704	19,800	240	23,209	24,393	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and Brockman, 1994
ISGS-72	Richland Co. 533	40.954497	-82.547299	14,290	130	17,017	17,778	Wood	interfill overbank deposit, top	KCG	Post-glacial	Coleman, 1973; Totten, 1973
PITT-0510	Rock Sand Quarry	39.183333	-84.503889	19,470	115	23,070	23,785	Plant fragments	in till	Miami-Scioto	Interstadial	Lowell and Brockman, 1994; Lowell, 2001
Beta-33943	Rock Sand Quarry	39.183333	-84.503889	19,060	265	22,415	23,594	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and Brockman, 1994; Lowell, 2001
Beta-33944	Rock Sand Quarry	39.183333	-84.503889	20,230	300	23,636	25,181	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and Brockman, 1994; Lowell, 2001
GrN-3219	Rocky Fork	40.018333	-82.852222	>46600	2,200			Wood	organic silt	Miami-Scioto	Glacial	Vogel and Waterbolk, 1972; Fullerton, 1980 (Illinoian age assignment, pg. 28)
W-263	Rocky Fork	40.023000	-82.844000	>37000				Wood	organic silt in outwash, silt with low organic content	Miami-Scioto	Glacial	Goldthwait, 1958
OWU-140B	Ross Well	39.300000	-84.700000	24,790	780	27,577	30,618	Wood (Picea)	silt, interstadial deposits	Miami-Scioto	Glacial	Ogden and Hay, 1967
PITT-0227	Sharonville	39.260300	-84.402200	19,960	170	23,587	24,416	Wood (Larix stump)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0506	Sharonville	39.260300	-84.402200	19,310	170	22,818	23,704	Wood (Larix stump)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0507	Sharonville	39.260300	-84.402200	20,200	140	23,885	24,652	Wood (Larix stump)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0508	Sharonville	39.260300	-84.402200	19,200	140	22,752	23,530	Wood (Larix stump)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0509	Sharonville	39.260300	-84.402200	19,690	150	23,310	24,101	Wood (Larix stump, root)	organics over silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0228	Sharonville	39.260300	-84.402200	22,550	275	26,196	27,395	Wood (Picea log)	silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0352	Sharonville	39.260300	-84.402200	19,610	120	23,265	23,977	Wood (Picea log)	silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0353	Sharonville	39.260300	-84.402200	21,450	170	25,413	26,051	Wood (Picea log)	silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0354	Sharonville	39.260300	-84.402200	21,480	145	25,511	26,038	Wood (Picea log)	silt	Miami-Scioto	Glacial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0348	Sharonville	39.260278	-84.402222	26,490	300	29,985	31,152	Organic silt	in till	Miami-Scioto	Interstadial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0349	Sharonville	39.260278	-84.402222	25,490	160	29,144	30,176	Organic silt	in till	Miami-Scioto	Interstadial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0350	Sharonville	39.260278	-84.402222	24,510	270	27,916	29,104	Organic silt	in till	Miami-Scioto	Interstadial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0351	Sharonville	39.260278	-84.402222	25,340	295	28,750	30,269	Organic silt	in till	Miami-Scioto	Interstadial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
OS-141072	Sharonville	39.260300	-84.402200	20,300	120	24,047	24,829	Gastropod (<i>Succineidae</i> sp.)	clay inbetween tills	Miami-Scioto	Interstadial	Nash, personal communication, 2019
PITT-0225	Sharonville	39.260300	-84.402200	21,120	130	25,160	25,752	Organic mat	in till	Miami-Scioto	Interstadial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0226	Sharonville	39.260300	-84.402200	21,570	180	25,514	26,158	Wood (root)	stump zone between tills	Miami-Scioto	Interstadial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
PITT-0224	Sharonville	39.260300	-84.402200	21,945	140	25,891	26,508	Wood (root)	stumps on top of laminated clays	Miami-Scioto	Interstadial	Lowell and others, 1990; Lowell and Brockman, 1994; Lowell, 2001
AA-53425	Sharpeye	40.101100	-84.744500	16,400	170	19,357	20,224	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
AA-21711	Sheridan Cave	40.975000	-83.450000	13,120	80	15,409	16,021	Wood charcoal	wood in gravel between tills	Huron-Erie	Post-glacial	Tankersley, 1999
Beta-144872	Sidney Cut; Sidney RR Cut	40.256100	-84.171100	22,700	80	26,696	27,333	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and others, 2018
Beta-144874	Sidney Cut; Sidney RR Cut	40.256100	-84.171100	22,650	80	26,636	27,278	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Lowell and others, 2018
Beta-144876	Sidney Cut; Sidney RR Cut	40.256100	-84.171100	23,530	80	27,504	27,838	Wood	littoral—clay, sand, and humus layers	Miami-Scioto	Interstadial	Lowell and others, 2018
W-188	Sidney Cut; Sidney RR Cut	40.256100	-84.171100	23,000	800	25,708	28,688	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Forsyth, 1965; Rubin and Suess, 1955; Flint and Rubin, 1955
W-356	Sidney Cut; Sidney RR Cut	40.256100	-84.171100	22,480	800	25,115	28,214	Wood	lacustrine-wetland	Miami-Scioto	Interstadial	Forsyth, 1965; Rubin and Alexander, 1958
OWU-39	Silver Lake	40.354200	-83.812500	10,778	210	12,105	13,085	Organics	in till	Miami-Scioto	Post-glacial	Ogden, 1966
OWU-81	Silver Lake	40.354200	-83.812500	7,760	335	7,967	9,429	Organics	in till	Miami-Scioto	Post-glacial	Ogden and Hay, 1965
OS-65857	Silver Lake	40.354200	-83.812500	14,950	200	17,708	18,629	Wood	organics over silt	Miami-Scioto	Post-glacial	Gill and others, 2012
ISGS-1171	Smoot Lake Bog	40.200000	-82.450000	14,350	310	16,551	18,215	Gyttja	in sandy gravel below 52 m of till	Miami-Scioto	Post-glacial	Shane and Anderson, 1993
ISGS-590	Somers Farm North; Sommers Farm North	39.669000	-84.774000	>45160				Wood	organic-rich sandy diamicton	Miami-Scioto	Glacial	Goldthwait and others, 1981; Liu and Coleman, 1981
W-37	Southern Hills	39.672000	-84.204000	20,700	600	23,494	26,089	Wood (log)	peat	Miami-Scioto	Glacial	Suess, 1954; Goldthwait, 1958; Gooding, 1975
L-397	Southern Hills	39.720980	-84.196750	20,150	350	23,436	25,214	Unclear	unclear	Miami-Scioto	Unclear	Goldthwait, personal communication in Lowell, 1995
OWU-452	Southwest Columbus	39.891667	-83.036111	19,850	765	22,278	25,703	Wood (Picea)	silt	Miami-Scioto	Interstadial	Ogden and Hay, 1973
Beta-27387	Stages Pond	39.671619	-82.936084	4,070	130	4,226	4,863	Bulk sediment	at till/organic contact	Miami-Scioto	Post-glacial	Shane and others, 2001
DAL-69	Steidman Woods (Owned by Bowling Green State University)	41.306518	-83.657067	8,650	230	9,127	10,242	Wood fragments	above till in organic deposit	Huron-Erie	Post-glacial	Ogden and Hart, 1976
AA-45077	Stevenson Bog	40.432900	-83.895700	14,360	120	17,139	17,842	Unclear	in till	Miami-Scioto	Post-glacial	Wiles and others, 2002; Glover and others, 2011
DIC-509	Stotzel-Leis Site	40.216700	-84.233300	13,070	370	14,237	16,684	Clay gyttja	below till	Miami-Scioto	Post-glacial	Shane, 1987
DIC-510	Stotzel-Leis Site	40.217000	-84.689000	14,890	380	17,147	18,904	Clay gyttja	below till in organic bed	Miami-Scioto	Post-glacial	Shane, 1987
W-166	Streetsboro	41.254384	-81.353819	8,600	300	8,966	10,411	Wood	in till	KCG	Interstadial	Rubin and Seuss, 1955
W-184	Streetsboro	41.254384	-81.353819	8,450	250	8,857	10,171	Wood	in till above organic silt	KCG	Interstadial	Rubin and Seuss, 1955
L-550B	Sunbeam Praire Bog	39.926532	-84.796015	10,600	150	12,049	12,748	Peat	in till	Miami-Scioto	Post-glacial	Kapp and Gooding, 1964
L-550C	Sunbeam Praire Bog	39.926532	-84.796015	11,700	250	13,058	14,132	Wood (spruce)	till	Miami-Scioto	Post-glacial	Kapp and Gooding, 1964
Beta-158291	Techplant	40.359000	-83.792000	11,860	270	13,120	14,611	Macrofossils (twigs and seeds)	in silt	Miami-Scioto	Post-glacial	Wiles and others, 2002; Glover and others, 2011
OWU-275	Terwilliger's Pond	41.656690	-82.827532	2,500	270	1,921	3,225	Wood (Picea)	silt	Erie	Ancestral Lake Erie	Ogden and Hay, 1969
ETH-28523	Tile Site	40.033200	-83.483500	15,560	100	18,601	19,014	Plant macrofossils	in till	Miami-Scioto	Post-glacial	Glover and others, 2011
ISGS-2940	Todd Fork	39.445726	-83.935510	23,110	240	27,782	26,920	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
ISGS-3068	Todd Fork	39.445726	-83.935510	23,150	240	27,798	26,986	Wood	lacustrine-wetland	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
ISGS-2939	Todd Fork	39.445726	-83.935510	23,150	180	27,717	27,122	Wood	lacustrine-wetland over fluvial	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
ISGS-2935	Todd Fork	39.445726	-83.935510	23,160	180	27,722	27,131	Wood	lacustrine-wetland over till	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
ISGS-3067	Todd Fork	39.445726	-83.935510	23,230	400	28,130	26,554	Wood	lacustrine-wetland over till	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
ISGS-2936	Todd Fork	39.445726	-83.935510	23,250	210	27,798	27,158	Wood	laminated silt; drift-glaciolacustrine outside boundary of glaciation	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
ISGS-3066	Todd Fork	39.445726	-83.935510	23,540	300	28,277	27,228	Wood	littoral—in sand below gravel	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
OWU-159	Todd Fork	39.445000	-83.937000	21,140	1,435	22,051	28,052	Wood (Picea)	silt and clay	Miami-Scioto	Interstadial	Ogden and Hay, 1967
OWU-160	Todd Fork	39.445000	-83.937000	22,255	1,650	22,723	29,718	Wood (Picea)	silt and clay (lower)	Miami-Scioto	Interstadial	Ogden and Hay, 1967
OWU-219	Torren's Bog	40.202000	-82.468000	12,800	600	13,486	16,880	Clay gyttja	at till/organic contact	Miami-Scioto	Post-glacial	Ogden and Hay, 1967
OWU-90	Torren's Bog	40.202000	-82.468000	12,820	444	13,779	16,457	Clay gyttja	at till/organic contact	Miami-Scioto	Post-glacial	Ogden and Hay, 1965
OWU-91	Torren's Bog	40.202000	-82.468000	14,160	483	15,856	18,371	Clay gyttja	below till in organic bed	Miami-Scioto	Post-glacial	Ogden and Hay, 1965
OWU-102	Turtle Creek	39.413758	-84.149160	19,620	372	22,696	24,469	Wood (Picea)	silt	Miami-Scioto	Glacial	Garner and Forsyth, 1965; Ogden and Hay 1965
GrN-4415	Upper Brush Creek	40.234444	-84.152500	48,000				Twigs	in till	Miami-Scioto	Glacial	Goldthwait, 1958
ISGS-3103	Upper Brush Creek	40.234700	-84.152400	39,200	2,100	39,160	46,824	Wood	sandy diamicton	Miami-Scioto	Interstadial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-3105	Upper Brush Creek	40.234700	-84.152400	42,600	2,100	42,880	49,726	Wood	sandy diamicton	Miami-Scioto	Interstadial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-3106	Upper Brush Creek	40.234700	-84.152400	41,200	2,900	40,564	[50000]	Wood	sandy diamicton	Miami-Scioto	Interstadial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-3107	Upper Brush Creek	40.234700	-84.152400	42,700	2,000	43,031	49,686	Wood	sandy diamicton	Miami-Scioto	Interstadial	Tom Lowell, personal communication; Lowell and others, 2018
ISGS-3108	Upper Brush Creek	40.234700	-84.152400	40,000	2,500	39,321	48,610	Wood	sandy diamicton	Miami-Scioto	Interstadial	Tom Lowell, personal communication; Lowell and others, 2018
W-414	Upper Brush Creek	40.234400	-84.152500	22,000	1,000	23,999	28,045	Wood (log)	sand	Miami-Scioto	Glacial	Goldthwait, 1958; Forsyth, 1965; Rubin and Alexander, 1958
ISGS-3103 (2)	Upper Brush Creek	40.234400	-84.152500	39,200	2,100			Wood	organics over silt	Miami-Scioto	Glacial	Lowell and others, 2018
ISGS-3105 (2)	Upper Brush Creek	40.234400	-84.152500	42,600	2,100			Wood	organics over silt	Miami-Scioto	Glacial	Lowell and others, 2018
ISGS-3106 (2)	Upper Brush Creek	40.234400	-84.152500	41,200	2,900			Wood	organics over silt	Miami-Scioto	Glacial	Lowell and others, 2018
ISGS-3107	Upper Brush Creek	40.234400	-84.152500	42,700	2,000			Wood	organics over silt	Miami-Scioto	Glacial	Lowell and others, 2018
ISGS-3108	Upper Brush Creek	40.234400	-84.152500	40,000	2,500			Wood	organics over silt	Miami-Scioto	Glacial	Lowell and others, 2018
GrN-4133	Upper Brush Creek	40.234400	-84.152500	>39300				Peat, residue	in till	Miami-Scioto	Glacial	Forsyth, 1965; Vogel and Waterbolk, 1972
GrN-4139	Upper Brush Creek	40.234400	-84.152500	>38000				Organic silt	in till	Miami-Scioto	Glacial	Forsyth, 1965; Vogel and Waterbolk, 1972
GrN-1761	Upper Brush Creek	40.234400	-84.152500	22,430	140	26,308	27,153	Peat	in till	Miami-Scioto	Interstadial	Forsyth, 1965; Vogel and Waterbolk, 1972
GrN-4512	Upper Brush Creek	40.234400	-84.152500	22,800	200	26,592	27,500	Peat	in till	Miami-Scioto	Interstadial	Forsyth, 1965; Vogel and Waterbolk, 1972
GrN-4513	Upper Brush Creek	40.234400	-84.152500	22,400	260	26,097	27,265	Peat	in till	Miami-Scioto	Interstadial	Forsyth, 1965; Vogel and Waterbolk, 1972
W-415	Upper Brush Creek	40.234400	-84.152500	>37000				Twigs in peat	in till	Miami-Scioto	Interstadial	Goldthwait, 1958; Forsyth, 1965; Rubin and Alexander, 1958
GrN-4415	Upper Brush Creek	40.234400	-84.152500	>48000				Twigs	in till	Miami-Scioto	Interstadial	Forsyth, 1965; Vogel and Waterbolk, 1972
ISGS-3235	Webb Road	39.462566	-83.895460	20,870	140	25,559	24,657	Peat	in till	Miami-Scioto	Glacial	Tom Lowell, personal communication; Data on file at the Illinois State Geological Survey
Beta-181057	Welty	40.690400	-81.610500	14,670	40	17,690	18,010	Plant macrofossils	in till	KCG	Post-glacial	Glover and others, 2011
W-304	Westchester	39.334000	-84.400310	20,500	800	22,753	26,284	Wood (log)	outwash gravel	Miami-Scioto	Glacial	Goldthwait, 1958
I-4033	Western Basin Lake Erie	41.713333	-82.741667	10,340	150	11,606	12,641	Top of plant detritus	in till	Erie	Ancestral Lake Erie	Lewis, 1969
I-4034	Western Basin Lake Erie	41.713333	-82.741667	10,370	150	11,698	12,659	Basal organic detritus	in till, short transport distance	Erie	Ancestral Lake Erie	Lewis, 1969
I-4035	Western Basin Lake Erie	41.765000	-82.955000	11,430	150	13,017	13,566	Basal plant detritus	in till, short transport distance	Erie	Ancestral Lake Erie	Lewis, 1969
I-4041	Western Basin Lake Erie	41.916667	-82.756667	11,140	160	12,721	13,277	Top of plant detritus	in till	Erie	Ancestral Lake Erie	Lewis, 1969
I-4040	Western Basin Lake Erie	41.916667	-82.756667	12,350	170	13,918	15,101	Basal plant detritus	in till, short transport distance	Erie	Ancestral Lake Erie	Lewis, 1969
GSC-382	Western Lake Erie	41.765000	-81.955000	11,300	160	12,812	13,447	Organic layer	in till	Erie	Ancestral Lake Erie	Lewis and others, 1966; Lowdon and others, 1967
OWU-110	Western Lake Erie	41.518333	-82.928333	6,550	134	7,241	7,669	Wood (Quercus)	silty clay; forest bed	Erie	Ancestral Lake Erie	Herdendorf and Braidech, 1972; Ogden and Hay, 1965
OWU-318bis	Western Lake Erie	41.678333	-82.916667	4,270	210	4,244	5,330	Peat, Plant detritus, subaerial plants	in till	Erie	Ancestral Lake Erie	Herdendorf and Braidech, 1972; Ogden and Hay, 1973

Lab ID	Site	Latitude	Longitude	Reported Age (¹⁴ C yr BP)	±	2σ Min	2σ Max	Material	Stratigraphy	Sublobe	Context	Sources
OWU-318	Western Lake Erie	41.678333	-82.916667	4,335	135	4,568	5,311	Peat, Plant detritus, subaerial plants	in till	Erie	Ancestral Lake Erie	Herdendorf and Braidech, 1972; Ogden and Hay, 1969
OWU-319	Western Lake Erie	41.693333	-82.916667	9,115	210	9,584	10,786	Peat, Plant detritus, subaerial plants	in till	Erie	Ancestral Lake Erie	Herdendorf and Braidech, 1972; Ogden and Hay, 1969
OWU-350	Western Lake Erie	41.706667	-82.916667	9,940	315	10,580	12,435	Peat, Plant detritus, subaerial plants	in till	Erie	Ancestral Lake Erie	Herdendorf and Braidech, 1972; Ogden and Hay, 1973
OWU-351	Western Lake Erie	41.721667	-82.916667	5,097	175	5,577	6,277	Peat, Plant detritus, subaerial plants	in till	Erie	Ancestral Lake Erie	Herdendorf and Braidech, 1972; Ogden and Hay, 1973
OWU-224A	Whitaker Mammoth	40.880000	-81.133333	5,490	235	5,735	6,792	Peat and plant rootlets	in till	KCG	Post-glacial	Ogden and Hay, 1967
OWU-224B	Whitaker Mammoth	40.880000	-81.133333	5,560	245	5,878	6,935	Peat and plant rootlets	in till	KCG	Post-glacial	Ogden and Hay, 1967
AA53429	Wildcat Bog	40.122000	-84.730000	10,676	58	12,552	12,720	Macrofossils (twigs and seeds)	in silt	Miami-Scioto	Post-glacial	Glover and others, 2011
I-6183	Woodland trails-4	39.659845	-84.653550	27,650	1,000	29,756	33,803	Wood	N/A	Miami-Scioto	Glacial	Oldfield, 1977; Gooding, 1975
I-8974	Woodland trails-4	39.659845	-84.653550	23,600	500	26,820	28,731	Bulk organic	at till/organic contact	Miami-Scioto	Interstadial	Oldfield, 1977; Gooding, 1975
DIC-43 (also DIS 43)	Woodland trails-5	39.659906	-84.654378	>42000				Wood (log)	sand and gravel, organic silt and clay layer; Wood on top of organic layer	Miami-Scioto	Glacial	Oldfield, 1977; Sumodi, 1974
W-648	Wright-Patterson Air- Base	39.782000	-84.089000	21,600	400	25,002	26,858	Wood (Picea)	silt and clay	Miami-Scioto	Glacial	Forsyth, 1961; Rubin and Alexander, 1960



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