




2017

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Timothy K. Perttula

Center for Regional Heritage Research, Stephen F. Austin State University

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Perttula, Timothy K. (2017) "Radiocarbon Dates from Aboriginal Sites in Cherokee, Henderson, and Tyler Counties in East Texas," *Index of Texas Archaeology: Open Access Gray Literature from the Lone Star State*: Vol. 2017 , Article 14. <https://doi.org/10.21112/ita.2017.1.14>

ISSN: 2475-9333

Available at: <https://scholarworks.sfasu.edu/ita/vol2017/iss1/14>

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Timothy K. Perttula

Introduction

The newly obtained radiocarbon dates discussed in this article were done by DirectAMS of Seattle, Washington. Three of the sites have only a single AMS radiocarbon date, while four radiocarbon dates have been obtained from the M. S. Roberts site (41HS8) on Caddo Creek in the Neches River basin. The radiocarbon ages obtained on these samples have been calibrated to 2 sigma using IntCal 13 (Reimer et al. 2013). These dates were obtained to continue to expand the utility of the East Texas Radiocarbon Database to better understand the age of archaeological components at sites in the region, as well as ascertain temporal trends in settlement by Native Americans in East Texas (cf. Selden 2012; Selden and Perttula 2013a, 2013b).

George C. Davis (41CE19)

The new radiocarbon date from the George C. Davis site is on a piece of carbonized cane stem from a concentration of carbonized cane (Figure 1) recovered in the WPA excavations in Unit 26R9, 20-25 inches (ca. 51-64 cm bs) below the surface. This unit falls within the limits of Feature 18 (Newell and Krieger 1949:30 and Figure 4), one of a number of overlapping circular structures east of Mound A at the site. The depth of the sample is at the same depth at which post holes to the structures were first exposed (i.e., 20 inches below surface).

The conventional radiocarbon age of the sample of charred cane is 721 ± 23 years B.P. (D-AMS 15383). The 2 sigma calibration ranges from A.D. 1264-1290. This calibrated date does fall within the summed probability distribution of the more than 100 radiocarbon dates obtained from the George C. Davis site (Figure 2), although it is towards the end of the principal ancestral Caddo occupation there.

Bowles Creek (41CE475)

The new radiocarbon date from the Bowles Creek site came from charred *Carya sp.* nutshells recovered from the fill (60-72 cm bs) of Stain 5, a post hole exposed in Unit BC-2 (Perttula and Stingley 2017). The conventional radiocarbon age is 378 ± 28 years B.P. (D-AMS 15385). The 2 sigma calibrated age range of the charred nutshells is A.D. 1446-1632, dating the post hole fill to the Late Caddo period Frankston phase.

An earlier date on a piece of unburned animal bone from Unit 3, 40-50 cm bs at the site was 410 ± 24 years B.P. (D-AMS 11799), or A.D. 1540 ± 24 . The 2 sigma calibration (95 percent probability) of this radiocarbon age is A.D. 1525 ± 84 . The mean 2 sigma calibrated age range of the two radiocarbon dates from the Bowles Creek site is A.D. 1443-1618.



Figure 1. Carbonized cane stems from Unit 26R9 (Lot 3137a) at the George C. Davis site.

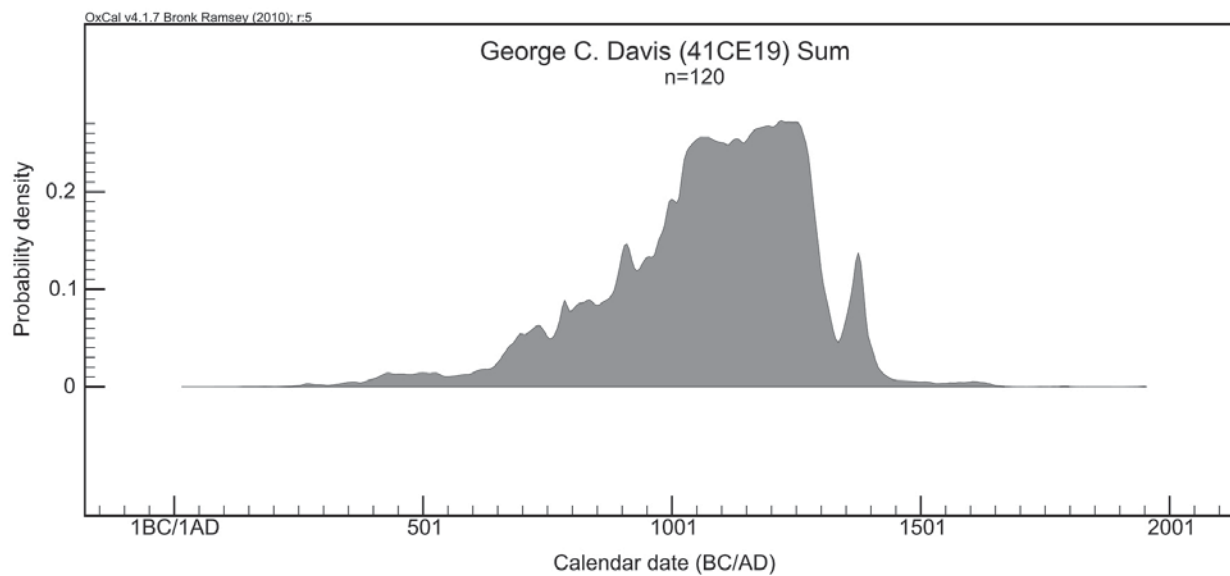


Figure 2. Summed probability distribution of previous calibrated radiocarbon dates from the George C. Davis site. Image provided courtesy of Robert Z. Selden Jr.

M. S. Roberts (41HE8)

Four radiocarbon dates have been obtained from archaeological deposits at the M. S. Roberts site. One is from the mound excavations (Unit 1), and three are from off-mound habitation deposits southeast of the mound (Perttula et al. 2017:Figure 2) (Table 1). A fifth sample, unburned animal bone from Unit 1 (37 cm bs), could not be dated because the bone failed in collagen extraction (Janet Niessner, February 26, 2016 personal communication).

Table 1. Radiocarbon samples from the M. S. Roberts site (41HE8).

Provenience (cm bs)	D-AMS No.	Radiocarbon age (B.P.)	Calibrated age, 2 sigma (A.D.)*
ST 35, 40-60	D-15386	1654 ± 28	340-425
Unit 2, 40-50	D-15388	1673 ± 26	338-418
Unit 1, 54	D-15382	651 ± 28	1282-1393
Unit 2, 20-30	D-15387	572 ± 22	1387-1414

*IntCal13, from Reimer et al. 2013

Two dates on charred *Carya sp.* nutshell from 40-60 cm bs non-mound habitation deposits have 2 sigma calibrated age ranges of A.D. 338-418 and A.D. 340-425 (see Table 1), indicating that there are Woodland period archaeological deposits in this part of the site. The mean 2 sigma calibrated age range of these two radiocarbon dates is A.D. 335-422. Later ancestral Caddo archaeological deposits in the mound (unburned deer teeth in Unit 1, 54 cm bs, in Zone 3, see Perttula et al. 2016:Figure 4) and a non-mound area (charred nutshells in Unit 2, 20-30 cm bs) have 2 sigma calibrated age ranges of A.D. 1282-1393 and A.D. 1387-1414 (see Table 1). The mean 2 sigma calibrated age range of these two radiocarbon dates is A.D. 1294-1405, falling in the Middle Caddo period. Analysis of the decorated ceramic sherds in the M. S. Roberts assemblage, as well as the recovery of Haley variety long-stemmed Red River pipe sherds, is consistent with this calibrated age range (Perttula et al. 2016:Table 8).

Roughcun (41TL95)

The Roughcun site is in the Turkey Creek unit of Big Thicket National Preserve. It is situated on an upland toe slope in the Turkey Creek valley, and Turkey Creek is a small tributary stream in the Neches River basin. The archaeological deposits appear to be of Woodland period age (ca. 2500-1150 years B.P.) given that they contain Gary dart points and a number of Goose Creek Plain, *var. unspecified* ceramic sherds between 20-100 cm bs (Perttula and Nelson 2016).

The radiocarbon sample consisted of a single charred *Carya sp.* nutshell recovered from 40-60 cm bs in ST 1087. The conventional age of the nutshell is 1808 ± 26 years B.P. (D-AMS 15384). The calibrated 2 sigma age range of the sample is A.D. 131-318, falling squarely in the Woodland period.

Summary and Conclusions

Recent archaeological investigations in Cherokee, Henderson, and Tyler counties in East Texas recovered samples of charred organic remains or animal bone that has been submitted for radiocarbon analysis. The samples came from the George C. Davis (41CE19), Bowles Creek (41CE475), M. S. Roberts (41HE8), and Roughcun (41TL475); only the latter site is not within the Caddo archaeological area of East Texas.

Woodland period radiocarbon dates ranging from A.D. 131-318 and A.D. 335-422 (mean calibrated age range of two samples) have been obtained from the Roughcun and M. S. Roberts site, the latter dates from non-mound archaeological deposits. The other newly obtained radiocarbon dates are from ancestral Caddo archaeological deposits. They include a 2 sigma calibrated age range of A.D. 1264-1290 on carbonized cane stem from a non-mound structure at George C. Davis, a 2 sigma calibrated age range of A.D. 1446-1632 from charred nutshell in a post hole at the Bowles Creek site, and a 2 sigma calibrated age range on two dates (on charred nutshell and unburned deer bone) of A.D. 1294-1405 from mound and non-mound habitation deposits at the M. S. Roberts site.

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