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Title of article Quaternary Stratigraphy and Paleoenvironments of the
Texas Rolling Plains

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Table A. Summary of radiocarbon ages, western Rolling Plains
(adapted from data in Caran and Baumgardner, 1986a).

| Site name ⁽¹⁾ | Analysis number | Unit description | Lab name, sample number ⁽²⁾ | ¹⁴ C age ± 1 σ (yr) ⁽³⁾ | δ ¹³ C ⁽⁴⁾ | Adjusted age (yr) ⁽⁵⁾ | Sample % C ⁽⁶⁾ |
|---------------------------------|-----------------|---|--|---|----------------------------------|----------------------------------|---------------------------|
| A. Upper Holmes Creek | 1 | lacustrine deposit | TX 4319 | 9,740 ± 160 | — | — | — |
| | 2 | lacustrine deposit | TX 4320 | 11,020 ± 160 | — | — | — |
| B. Lake Theo archeological site | 3 | modern soil | TX 4659 | 950 ± 60 | — | — | 1.2 |
| | 4 | buried soil | TX 4660 | 3,520 ± 470 | — | — | 1.0 |
| | 5 | buried soil | TX 4661 | 5,650 ± 180 | — | — | 1.0 |
| | 6 | buried soil | TX 4662 | 5,540 ± 180 | — | — | 1.0 |
| | 7 | buried soil | SMU 856 | 9,420 ± 85 | — | — | 1.2 |
| | 8 | buried soil | SMU 866 | 9,950 ± 110 | — | — | 1.8 |
| | 9 | bone of <u>Bison antiquus</u> , associated with Folsom artifacts in buried soil | TX 2880 | 8,010 ± 100 | — | — | 0.50 |
| | 10 | as above | TX 2879 | 9,360 ± 170 | — | — | 0.50 |
| | 11 | lacustrine deposit | TX 4663 | 11,040 ± 270 | — | — | 1.5 |
| | 12 | lacustrine deposit | TX 4664 | 11,980 ± 320 | — | — | 1.5 |

Dates on bones were reported by Harrison and Killen (1978, Addendum).

Dates from the SMU laboratory and percentages of organic carbon were reported by Johnson and others (1982, table 2 and fig. 4).

| | | | | | | | |
|--------------------------|----|--------------------|---------|--------------|---|---|---|
| C. Lake Theo; south bank | 13 | lacustrine deposit | TX 4321 | 12,470 ± 290 | — | — | — |
| | 14 | lacustrine deposit | TX 4322 | 13,400 ± 300 | — | — | — |
| D. Lake Theo; southeast | 15 | lacustrine deposit | TX 4326 | 8,560 ± 290 | — | — | — |
| | 16 | lacustrine deposit | TX 4327 | 8,640 ± 170 | — | — | — |
| E. Lower Holmes Creek | 17 | lacustrine deposit | TX 4324 | 12,640 ± 180 | — | — | — |
| | 18 | lacustrine deposit | TX 4323 | 13,210 ± 210 | — | — | — |

Table A. (cont.)

| Site name ⁽¹⁾ | Analysis number | Unit description | Lab name, sample number ⁽²⁾ | ¹⁴ C age ± 1 σ (yr) ⁽³⁾ | δ ¹³ C ⁽⁴⁾ | Adjusted age (yr) ⁽⁵⁾ | Sample % C ⁽⁶⁾ |
|--|-----------------|---|--|---|----------------------------------|----------------------------------|---------------------------|
| F. Little Red River terrace | 19 | buried soil | Beta 9586 | 1,470 ± 130 | -25.26 | 1,465 ± 130 | 0.08 |
| | 20 | buried soil | Beta 9587 | 1,400 ± 70 | -19.14 | 1,495 ± 80 | 0.13 |
| | 21 | buried soil | TX 4325 | 1,640 ± 70 | — | — | — |
| | 22 | buried soil | Beta 9588 | 1,990 ± 100 | -15.93 | 2,140 ± 110 | 0.13 |
| G. Unnamed tributary of Little Red River | 23 | <u>Bison</u> sp. bones in alluvial fill of abandoned stream channel | TX 3906 | 920 ± 190 | — | — | — |
| H. Henson farm | 24 | buried soil | Beta 9600 | 1,280 ± 60 | -15.66 | 1,435 ± 70 | 0.15 |
| | 25 | lacustrine deposit | Beta 9601 | 9,580 ± 130 | -15.93 | 9,730 ± 140 | 0.14 |
| I. Henson farm | 26 | buried soil | TX 4901 | 330 ± 80 | — | — | — |
| | 27 | buried soil | Beta 9597 | <320 | -16.35 | — | 0.05 |
| | 28 | buried soil | TX 4902 | 1,670 ± 70 | — | — | — |
| | 29 | buried soil | Beta 9598 | 1,520 ± 80 | -13.93 | 1,700 ± 90 | 0.09 |
| | 30 | lacustrine deposit | TX 4903 | 6,410 ± 90 | — | — | — |
| | 31 | lacustrine deposit | Beta 9599 | 6,120 ± 160 | -14.96 | 6,285 ± 170 | 0.09 |
| J. Henson farm | 32 | buried soil | Beta 9595 | <180 | -16.93 | — | 0.12 |
| | 33 | buried soil | Beta 9596 | 850 ± 60 | -15.38 | 1,010 ± 70 | 0.17 |
| | 34 | lacustrine ? deposit | Beta 9589 | 1,880 ± 70 | -21.20 | 1,950 ± 80 | 0.12 |
| | ND | lacustrine ? deposit | Beta 9590 | insufficient organic carbon | — | — | — |
| K. Henson farm | 35 | exhumed soil | Beta 9591 | 360 ± 80 | -17.90 | 480 ± 75 | 0.16 |
| | 36 | exhumed soil | Beta 9592 | 630 ± 70 | -17.12 | 765 ± 75 | 0.15 |
| | ND | lacustrine deposit | Beta 9593 | insufficient organic carbon | — | — | — |

Table A. (cont.)

| Site name ⁽¹⁾ | Analysis number | Unit description | Lab name, sample number ⁽²⁾ | ¹⁴ C age ± 1 σ (yr) ⁽³⁾ | δ ¹³ C ⁽⁴⁾ | Adjusted age (yr) ⁽⁵⁾ | Sample % C ⁽⁶⁾ |
|--|-----------------|---|--|---|----------------------------------|---|---------------------------|
| L. Smith farm (Lingos Fm. type area) | 37 | buried soil | TX 4898 | 1,000 ± 70 | — | — | — |
| | 38 | buried soil | Beta 9602 | <110 | -16.00 | — | 0.31 |
| | 39 | buried soil | TX 4899 | 2,970 ± 70 | — | — | — |
| | 40 | buried soil | Beta 9603 | 1,160 ± 70 | -13.03 | 1,355 ± 80 | 0.56 |
| | 41 | silty fine sandy clay lacustrine deposit | Beta 9607 | 14,920 ± 490 | -19.44 | 15,110 ± 500 (cf. Beta 9606) | 0.16 |
| | 42 | lacustrine deposit | Beta 9606 | 11,560 ± 990 | -20.97 | 11,625 ± 1,000 (cf. Beta 9607) | 0.03 |
| | 43 | lacustrine deposit | Beta 9605 | 18,650 ± 1,350 | -23.99 | 18,665 ± 1,355 | 0.19 |
| | 44 | lacustrine deposit | Beta 9604 | 23,240 ± 2,330 | -26.23 | 23,255 ± 2,335 | 0.08 |
| | | | | | | | |
| M. Blair farm | 45 | buried soil | Beta 9615 | 1,230 ± 90 | -17.39 | 1,350 ± 100 (cf. Beta 9616) | 0.06 |
| | 46 | buried soil | Beta 9616 | 140 ± 100 | -16.40 | 280 ± 110 | 0.04 |
| | ND | lacustrine ? deposit | Beta 9614 | insufficient organic carbon | — | — | — |
| N. Edwards farm (Quitaque local fauna type locality) | 47 | lacustrine deposit | TX 4900 | >35,000 | — | — | — |
| | 48 | lacustrine deposit | Beta 8969 | >38,260 | -20.44 | — | 0.30 |
| | 49 | shell of clam in lacustrine deposit | SMOC (analysis 1) | 31,400 ± 5,600 | — | — | — |
| | 50 | shell of clam (same shell?) in lacustrine deposit | SMOC (analysis 2) | 31,400 ± 3,200 | — | — | — |
| | | | | | | | |
| Dates obtained on shell were reported by Dalquest (1964a, p. 505). Dalquest (personal communication, 1984) agreed that the shell that was analyzed probably had been collected from lacustrine deposits. | | | | | | | |
| O. Ft. Worth and Denver Railroad cut | 51 | buried soil (calcic horizon) | TX 4885 | 18,680 ± 260 | -1.73 | 480-1,650 | — |
| | | | | | | | |
| | | | | (Note: large adjustment required) | | (older date based on 50% CO ₂ exchange with air) | |

Table A. (cont.)

| Site name ⁽¹⁾ | Analysis number | Unit description | Lab name, sample number ⁽²⁾ | ^{14}C age $\pm 1\sigma$ (yr) ⁽³⁾ | $\delta^{13}\text{C}$ ⁽⁴⁾ | Adjusted age (yr) ⁽⁵⁾ | Sample % C ⁽⁶⁾ |
|--|-----------------|----------------------|--|---|--------------------------------------|----------------------------------|---------------------------|
| O. Ft. Worth and Denver Railroad cut (cont.) | ND | lacustrine deposit | TX 4884 | insufficient organic carbon | $-$ | $-$ | $-$ |
| | ND | lacustrine deposit | | | | | |
| P. Ft. Worth and Denver Railroad cut | 52 | buried soil | Beta 9594 | $1,120 \pm 90$ | -18.24 | $1,235 \pm 100$ | 0.13 |
| Q. Ft. Worth and Denver Railroad cut | 53 | buried soil | Beta 9610 | 660 ± 70 | -14.46 | 830 ± 80 | 0.29 |
| | 54 | buried soil | Beta 9611 | $1,070 \pm 60$ | -13.35 | $1,260 \pm 70$ | 0.29 |
| | 55 | buried soil | Beta 9612 | $4,070 \pm 110$ | -15.29 | $4,230 \pm 120$ | 0.31 |
| | 56 | buried soil | Beta 9613 | $6,490 \pm 130$ | -15.93 | $6,640 \pm 150$ | 0.18 |
| R. Ft. Worth and Denver Railroad cut | 57 | buried soil? | Beta 9608 | $9,470 \pm 120$ | -16.79 | $9,510 \pm 130$ | 0.43 |
| | 58 | lacustrine ? deposit | Beta 9609 | $12,710 \pm 140$ | -18.90 | $12,810 \pm 150$ | 0.2 |

¹ Letter preceding site name corresponds to site designations in figures 2 and A, and to Caran and Baumgardner (1986a). At each site, sequence of analysis numbers corresponds to stratigraphic sequence (downward through section) of sampled beds.

ND = no data, analysis number not assigned.

² Radiocarbon laboratories: Beta = Beta Analytic, Inc.; SMOC = Sacony Mobile Oil Company, now inactive; SMU = Southern Methodist University; TX = The University of Texas at Austin.

³ Radiocarbon age, expressed as years before 1950 ("present") plus and minus one standard statistical deviation ($\pm 1\sigma$) which defines the 68-percent confidence interval of the analysis. For some purposes dates should be compared over the 95-confidence interval ($\pm 2\sigma$).

⁴ Stable-isotope composition of the sample, conventionally expressed as a ratio. The $\delta^{13}\text{C}$ value serves as a correction factor and as a check on the amount of isotopic fractionation.

⁵ Age after adjustment for $\delta^{13}\text{C}$ value, if the stable-isotope composition of the sample was determined.

⁶ Percentage, by weight, of organic material in sample after removal of carbonate.

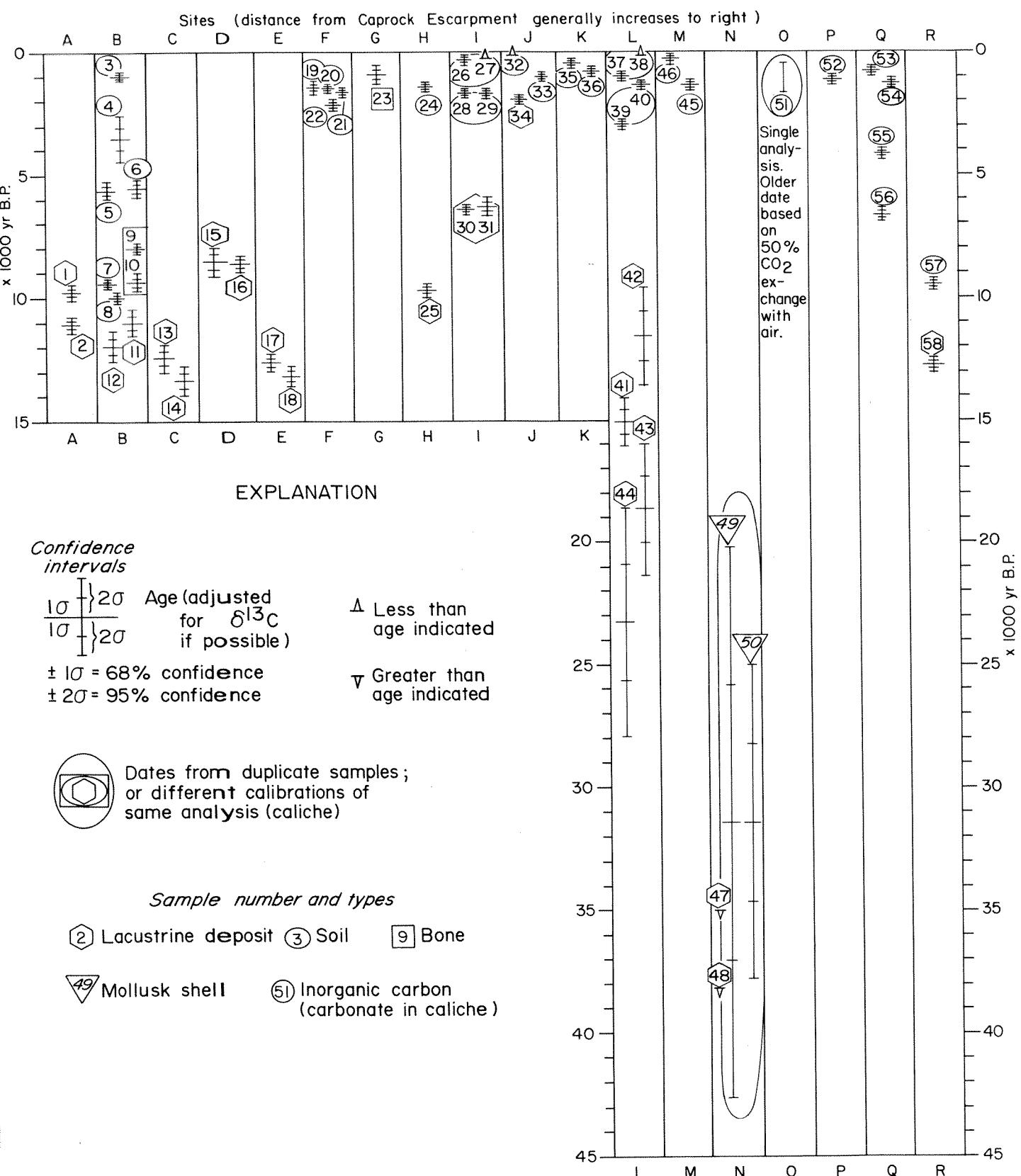


Figure A. Radiocarbon ages of samples from sites in the western Rolling Plains. Letter designations for sites correspond to those in Table A and Figure 2.