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UNIVERSITY OF MIAMI RADIOCARBON DATES XXII

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The following radiocarbon dates are a partial list of samples measured for a variety of projects and materials since August 1980. Chemical and counting procedures remain the same as indicated in R, v 20, p 274-282.

Calculations are based on the 5568-year Libby ^{14}C half-life. Precision is reported as one standard deviation based only on statistical counting uncertainties in the measurement of the background, NBS modern standard, and sample activities. ^{13}C values are measured relative to PDB and reported ages are corrected for isotopic fractionation by normalizing to $-25‰$.

I. GEOLOGIC SAMPLES

United States

Florida

Florida Everglades series

Marl and peat samples from three cores in the Everglades (25° 48′ 55″ N, 80° 31′ 1″ W). Coll 1980, subm 1981 by P Stone and G Treadgold, Univ of Miami. Core CT3 was 7.2km, CT2 was 6.4km, and CA3-8 was 90m W of water sta S334. Marl dates represent environmental change possibly attributable to sea-level fluctuations.

UM-2341. Core CT2, 25.4-28cm **2710 ± 90**
Basal marl sample.

UM-2342. Core CT2, 22-24cm **2400 ± 70**
Middle marl sample.

UM-2343. Core CT2, 18-20cm **2910 ± 100**
Top marl sample.

UM-2344. Core CT3, 27-28cm **3730 ± 620**
Basal marl.

UM-2345. Core CT3, 9-16cm **2090 ± 90**
Top marl.

UM-2363. Core CT2, 18-28cm **2550 ± 180**
Peat intermixed with marl layers.

UM-2365. Core CA3-8, 14-18cm **1880 ± 90**
Lower marl.

UM-2370. Core CA3-8, 25-30cm **1860 ± 90**
Upper marl layer.

Lacosta Island series

Beach ridge rock and shell samples from Lacosta I. (26° 42′ N, 82° 20′ W), SW coast of Florida. Dated to establish time of deposition for sea-level study. Coll 1981 and subm by T M Missimer and J R Ackley, Univ Miami.

UM-2327. LBR-1-2 **640 ± 70**

Shallow excavation in beach ridge ca 1m below surface. Possible replacement of carbonate.

UM-2327B. LBR-1-2B **1040 ± 90**

Same source as UM-2327 but material non-recrystallized.

UM-2328. ULBR-1-3 **4110 ± 90**

Shallow excavation on beach ridge ca 800cm below surface, directly above UM-2327.

UM-2329. USH-1-4 **2290 ± 70**

Shallow excavation on beach ridge ca 1.1m deep.

UM-2331. USH-2-5-6-D **2530 ± 90**

Sample from ca 1.1m deep.

UM-2368. ULBR-1-3 **4110 ± 80**

Shallow excavation on beach ridge ca 800cm below surface, directly above UM-2327.

Key Largo Depression series

Marine shell samples coll from Pleistocene depression "The Elbow" and Tavernier Key. Samples taken to determine effect of physical forces on sedimentation of mudstone layer. Samples were from thin wackestone and packstone over, and underlying, thick, relatively shell-free mudstone unit. Coll 1980 and subm 1981 by J Craig and S Ross, Univ Miami.

3620 ± 100

UM-2353. CORE 8001-31, 222-228cm $\delta^{13}C = +2.1‰$

Shelly wackestone overlying mudstone, SE of Rodriguez Key.

3360 ± 100

UM-2354. CORE 7-19-7, 205-212cm $\delta^{13}C = +2.0‰$

Wackestone overlying mudstone (25° 0.5′ N, 80° 22.4′ W).

3930 ± 100

UM-2355. CORE 7-19-13, 205-215cm $\delta^{13}C = +1.9‰$

Wackestone overlying mudstone (25° 3.5′ N, 80° 23.5′ W).

4620 ± 90

UM-2356. CORE 7-19-13, 395-400cm $\delta^{13}C = +0.6‰$

Shelly packstone underlying mudstone (25° 3.5′ N, 80° 23.5′ W).

8190 ± 420

UM-2357. CORE 7-19-7, 324-334cm $\delta^{13}C = +0.6‰$

Wackestone underlying mudstone (25° 0.5′ N, 80° 22.4′ W).

Georgia

Chesser Prairie series

Samples coll from piston cores from Chesser Prairie in Okefenokee Swamp (30° 54′ N, 82° 20′ W). Samples dated to test proposed method of prairie formation by series of peat burns. Samples coll 1978 by P Stone and subm 1981 by P Stone, Univ South Carolina, Columbia and R A Johnson.

600 ± 60

UM-2266. CP4, 67-72cm $\delta^{13}C = -26.3‰$

Water-lily peat deposited immediately above burn layer. Dates first returning, peat-forming vegetation to area.

1520 ± 60

UM-2267. CP4, 76-81cm $\delta^{13}C = -27.7‰$

Cypress peat directly below burn event.

3250 ± 60

UM-2268. CP4, 159-165cm $\delta^{13}C = -27.4‰$

Basal cypress peat overlying sandy layer.

1880 ± 70

UM-2301. CP3, 90-94cm $\delta^{13}C = -26.3‰$

Water-lily peat coll directly above bottom burn layer in core CP3.

2350 ± 60

UM-2302. CP3, 90-102cm $\delta^{13}C = -27.0‰$

Cypress peat directly below bottom burn event.

3750 ± 70

UM-2303. CP3, 145-150cm $\delta^{13}C = -27.0‰$

Basal cypress peat overlying organic rich sand.

1620 ± 60

UM-2304. CP3, 79-83cm $\delta^{13}C = -26.6‰$

Water-lily peat immediately above upper burn event.

1840 ± 40

UM-2305. CP3, 84-90cm $\delta^{13}C = -28.3‰$

Water-lily peat coll directly below upper burn layer.

3500 ± 100

UM-2306. CP2, 127-135cm $\delta^{13}C = -27.5‰$

Basal peat sample, probably water-lily overlying gradational sand rich in organic matter.

3620 ± 70

UM-2308. CP2, 140-152cm $\delta^{13}C = -27.4‰$

Clayey sand rich in organic matter.

3990 ± 80

UM-2309. CP2, 152-160cm $\delta^{13}C = -26.6‰$

Light brown transitional sand of low organic content; below is grayish sand devoid of organics. Sample dates earliest accumulation of organics in Chesser Prairie area.

General Comment (RAJ): initial results indicate several fires at different times in different areas of this pre-prairie area were instrumental in removal of cypress vegetation with subsequent replacement by various water-lily peats.

North Carolina

Core Sound series

Peat samples from just S of Davis (34° 46′ N, 76° 23′ W). Samples related to deposition of organic matter at Cape Lookout Bight. Samples coll along erosional shoreline consisting of dark mud and plant matter. Coll and subm 1981 by C S Martens, Univ North Carolina, Chapel Hill.

UM-2290. 2-UNC-P **700 ± 70**

Peat from 0 to 20cm depth.

UM-2291. 4-UNC-P **740 ± 70**

Peat from 45 to 65cm depth.

UM-2292. 1-UNC-P **520 ± 70**

Same peat as UM-2290, except all particles >2mm were removed.

UM-2364. 4-UNC-PPT **820 ± 80**

Same peat as UM-2291, except all particles >2mm were removed and sample was treated with 6N HCl hydrolysis.

UM-2299. 6-UNC-SG **129% modern**

Terrestrial grass growing on top of peat layer.

UM-2293. 12-UNC-SG **115% modern**

Wet marine grass coll along shoreline of Big Deep Marsh I.

UM-2367. 15-UNC-SG **115% modern**

Living marine grass *Zostera marina* (eel grass) coll from within Core Sound.

II. ARCHAEOLOGIC SAMPLES

United States

Florida

Little Salt Spring series II

Peat sample coll from core GDF-141 at edge of Little Salt Spring (Zone 17 (UTM) Lat: 377710–720m E/Long: 2995180–190M N). Samples dated to correlate palynologic and hydrologic data with the two periods of human occupation at spring ca 12,000-9000 BP and 6800-5200 BP. Sam-

ples coll by J Brown and C Clausen and subm 1978 by J Brown, Univ South Carolina, Columbia, and R A Johnson.

UM-2159. GDF-141, 7.4-15cm **103% modern**
Dark brown fibrous peat from hammock area.

UM-2160. GDF-141, 37-44cm **1430 ± 70**
Sample coll from base of dark brown fibrous peat sec.

UM-2161. GDF-141, 88-96cm **5330 ± 80**
Brown fibrous peat from prehammock layers.

UM-2162. GDF-141, 110-118cm **6430 ± 90**
Brown fibrous peat.

UM-2163. GDF-141, 128-132cm **7650 ± 160**
Brown fibrous peat with fine-grained material.

UM-2164. GDF-141, 81-88cm **2790 ± 60**
Brown fibrous peat.

UM-2172. GDF-141, 59-66cm **1380 ± 70**
Red-brown coarse fibrous peat.

Rivermount series

Charcoal samples coll from excavated test pit in black dirt and shell midden along New River (26° 7′ 20″ N, 80° 9′ 00″ W). Rivermount midden is deep (basal depth: — 1.5m) for midden deposit in Glades Archaeological subarea. No stratigraphic sequence was apparent; excavation proceeded in 10cm arbitrary levels. Dates were expected to range in Glades II period (AD 500-AD 1300). Incised motifs on ceramics provide basis for expected dates. Incised pottery was recovered at Level 8 (UM-2399) as well as at surface of site, providing strong evidence for Glades II occupation. ^{14}C dates substantiate pottery age-based estimates. Samples coll by D Allerton and J Southard and subm 1981 by R Carr and R A Johnson, Univ Miami Geoarchaeol Research Center.

UM-2400. Basal level, 105cm **1550 ± 40**

UM-2402. Level 9, 95-105cm **1590 ± 40**

UM-2399. Level 8, 85-95cm **1570 ± 40**

UM-2398. Level 7, 75-85cm **1530 ± 40**

UM-2401. Level 5, 65-75cm **1280 ± 40**

UM-2403. Level 5, 55-65cm **1400 ± 400**

UM-2404. Level 4, 45-55cm **1570 ± 40**

UM-2405. Level 3, 35-45cm **1480 ± 40**

Bay West Nursery series

Samples coll from Archaic mortuary in central pond depression of cypress dome feature at fringe of Big Cypress Swamp (26° 07′ N, 81° 46′ W). Samples dated to determine chronology of human cemetery which ranks as one of earliest in S Florida. Samples coll by J Beriault, R Carr, and J Meeder and subm 1980 by J Beriault, R Carr, and R Johnson, Univ Miami Geoarchaeol Research Center.

UM-2085. FS577, Bag 18 of 25 **6520 ± 130**
Wooden fire-burned post assoc with burial.

UM-2087. FS578, Bag 14 of 14 **6670 ± 80**
Wooden fire-burned post from burial area.

UM-2088. FS578, Bag 11 of 14 **6630 ± 80**
Wooden fire-burned post from burial area.

UM-2169. FS515 **6780 ± 130**
Peat coll from interior of skull.

UM-2170. Sample #2 **5500 ± 80**
Peat encasing human bone.

UM-2226. Core #2 **5860 ± 120**
Basal peat at 121 to 131cm depth.

UM-2227. Core #1 **7550 ± 120**
Basal peat at 253 to 263cm.

REFERENCES

Calvert, M, Rudolph, Kim, and Stipp, J J, 1978, University of Miami radiocarbon dates XII: Radiocarbon, v 20, p 274-282.