#### UNIVERSITY OF MIAMI RADIOCARBON DATES VIII

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The following radiocarbon measurements are a partial list of projects and samples dated since January 1975. The technique used is described in R, v 16, pp 402-408 and R, v 18, pp 210-220. Dates are calculated using <sup>14</sup>C half-life of 5568 yr and errors are reported as one-standard deviation.

#### ACKNOWLEDGMENTS

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#### SAMPLE DESCRIPTIONS

#### I. ARCHAEOLOGIC SAMPLES

#### **Garfield series**

Freshwater shell and corn samples from the Garfield site, 9-Br-99 Bartow Co, Georgia (34° 11' 48" N, 84° 58' 04" W). Coll 1970 by J Chapman and 1972 by J T Milanich: subm 1975 by J T Milanich, Univ Florida and T Clark, Univ Miami. *Comment* (JTM): the site is a single component village occupied by the Kellog culture, known to have existed from ca 500 BC to AD 1.

		4090 - 140
UM-445.	Garfield Sg 23, Level C	2740 вс
Freshwater	shell from midden.	
		$4950\pm80$
UM-446.	Garfield Sq 23, Level D	3000 вс
Freshwater	shell from midden.	
		$5270\pm80$
UM-447.	Garfield Sq 500N, 565E, Feature 5	3320 вс
Freshwater	shell from large bell-shaped storage pit.	
		$890\pm75$
UM-448.	Garfield corn	ad 1060
Corn from	same provenience as UM-447. Corn	kernels from here

1600 - 110

were previously dated at Univ Georgia at AD 700 and AD 1000. 2070 + 240

		$2010 \pm 240$
UM-449.	Garfield charred nuts	120 вс
CI III	· · · · · · · · · · · · · · · · · · ·	

Charred nuts and wood from same provenience as UM-447, -448.

# **Red Willow Creek series**

Charcoal and freshwater shell samples from 2 levels of occupation on North bank of Red Willow Creek. Samples come from a Woodland period house in Red Willow Co, Nebraska (40° 20' 41" N, 100° 38' 42" W) and from the Upper Republican site in Frontier Co, Nebraska (40° 22' 50" N, 100° 43' 52" W). Coll 1962 and subm 1975 R T Grange Jr, Univ South Florida, Tampa.

# 1370 ± 100 UM-466. Red Willow 25RW28 AD 580

Charcoal from refuse pit, 76 to 91cm above house floor from Woodland period.

		$4950 \pm 120$
UM-469.	Red Willow 25RW28	3000 вс

Freshwater mussel shell from refuse pit 46 to 61cm above house floor.

		$1940 \pm 80$
UM-470.	Red Willow 25RW28	ad 20

Charcoal from refuse pit, 61 to 76cm above house floor.

		$1920 \pm 70$
UM-549.	Red Willow 25RW28	ad 30

Duplicate run of UM-470.

General Comment (RTG): dates should give a better understanding of Woodland period culture in Plains archaeology and show possible relationships to the Massacre Canyon site and/or Kieth focus sites in the region. Charcoal from this site was previously dated 1430  $\pm$  45 (SE-68) R, v 7, p 246.

# UM-467. Upper Republican 25Ft80 1380 ± 180 AD 570 AD 570

Charcoal from several locations in the same general occupation zone, 0 to 46cm below surface.

		3395 ± 295
UM-468.	Upper Republican 25Ft80	1445 вс

Freshwater mussel shell from several locations in same occupation zone, 0 to 46cm below surface.

General Comment (RTG): the Upper Republican site is on upper level of terrace in Red Willow Creek Valley. Dated to provide a better basis for comparative studies of cultures in the region. Charcoal from this site was previously dated  $440 \pm 40$  (SI-72) R, v 7, pp 247.

# **St Simons Island series**

Seven shell samples from middens of various locations on St Simons I. Glynn Co, Georgia. Coll 1974 and subm 1975 by J T Milanich, Univ Florida and A Machover, Univ Miami.

General Comment (JTM): dates correspond to Deptford and Wilmington cultures and are to check, and, if necessary, revise ceramic and cultural sequence for central coast of Georgia.

UM-667. St Simons I. Test B-C	990 р 960	± 80
Busycon from shell midden (31° 17' 8" N, 81° 19' 42 below surface.	″W)	35cm
	1130	± 70
UM-668. St Simons I. Test D A Busycon from shell midden (31° 16′ 30″ N, 81° 19′ 47 below surface.	<b>d 820</b> ‴W)	18cm
	1240	± 90
UM-669. St Simons I. Test F	d 710	
Busycon from shell midden (31° 16′ 4″ N, 81° 20′ 22 below surface.	″W)	10cm
	710	± 70
UM-670. St Simons I. Test G AD Overlap widdles ( $^{2}$ 10, $17''$ , $4''$ , N, 210, 10', 40'', N	1240	90
from surface.	v) ca	30cm
	510	± 75
UM-701. St Simons I. Test G AD Duplicate of UM-670.	1440	
	1240	± 70
UM-671. St Simons I. Test A A Quater shall from shall been $(210, 157, 077)$ by $010, 107, 4077$ M	D 710	1 111
34 to 49cm below surface.	). Leve	el 111,
UM-672. St Simons I. Test A	1190 p 760	± 70
Oyster shell from Level IV, 49 to 64cm, of same shell heap	as UN	1-671.
	1015	+ 70
UM-673. St Simons I. Test E	D 935	- 10
Oyster shell from midden (31° 16' 20" N, 81° 19' 50" W) below surface.	15 to	30cm
St John's II series		
Duplicate runs on <i>Donax variabilis</i> shell coll from a m S of Jacksonville Beach, Florida (30° 16' 47" N, 81° 23' 09" W subm 1975 by J Miller, Tallahassee, Florida.	idden <sup>7</sup> ). Col	8km 1 and

General Comment (JM): helps date occupation, as ceramic markers are vague.

UM-702.	St John's II	1000 ± 70 ad 950
UM-703.	St. John's II	1175 ± 70 ад 775

#### **II. GEOLOGIC SAMPLES**

#### A. United States

#### **Everglades Marsh series**

Periphyton samples coll alive as cylindrical encrustations on Eleocharis stems (a sedge), from various locations in the Everglades marsh, Florida. Coll and subm 1975 by P Gleason and P Stone, Central and S Florida Flood Control Dist.

General Comment (PG): dated to determine hard water effect, and to develop a correction factor for dates on calcitic mud derived from *Periphyton* from similar environments.

UM-656. Everglades Marsh BC6  $134.9 \pm 0.9\%$  modern Carbonate fraction of *Periphyton* (25° 50' N, 80° 50' W) 2.4m above MSL. *Comment* (PG): hard water in contact with surface limestones and marls.

UM-657. Everglades Marsh BC7  $135.2 \pm 1.1\%$  modern Same as UM-656.

UM-658. Everglades Marsh 2-17CP 129.2  $\pm$  1.0% modern Carbonate fraction of *Periphyton* (26° 16′ 50″ N, 80° 25′ 10″ W) 3.4m above MSL. *Comment* (PG): hard water due primarily to agricultural runoff and hard ground water from canals.

**UM-663.** Everglades Marsh 2-17AP 127.8 ± 1.0% modern Same as UM-658.

UM-659. Everglades Marsh 3-28AP 137.3 ± 1.1% modern Carbonate fraction of *Periphyton* (25° 48′ 55″ N, 80° 43′ 15″ W) 2.3m above MSL.

UM-660. Everglades Marsh BC2,3,4,8  $132.9 \pm 0.9\%$  modern Carbonate fraction of *Periphyton* (25° 50' N, 80° 50' W) 2.4m above MSL. Similar to UM-656 and UM-657.

**UM-661.** Everglades Marsh BC2,3,4,8  $130.4 \pm 1.2\%$  modern Organic fraction of UM-660.

**UM-662.** Everglades Marsh BC2,3,4,8 126.1 ± 1.1% modern Duplicate run of UM-661.

#### **Everglades Tree Island series**

Peat samples from 3 piston cores in Everglades tree-islands, small *Persea* type, in Conservation Area I, the Everglades, Florida. Continuation of a study on tree-island formation (R, v 18). Coll and subm 1975 by P Gleason and P Stone and D Piepgras.

General Comment (DP): results of core 20 suggest tree-islands may form *in situ*, contrary to hypothesis that they break loose during flooding and settle over a younger area.

D Piepgras and J J Stipp

<b>UM-681.</b> (26° 26′ 55′	<b>Core 20(3): 146 to 156cm</b> ″ N, 80° 17′ 10″ W) 5.0m above MSL.	930 ± 90 ad 1020
UM-687.	Core 20(3): 156 to 166cm	910 ± 70 ad 1040
UM-682.	Core 20(3): 166 to 175cm	1290 ± 70 ad 660
UM-683.	Core 20(3): 179 to 188cm	1460 ± 70 ad 490
UM-684.	Core 20(4): 198 to 206cm	2070 ± 80 120 вс
UM-685.	Core 20(4): 217 to 226cm	2690 ± 90 740 вс
<b>UM-825.</b> Duplicate 1	<b>Core 20(4): 217 to 226cm</b> run of UM-685.	2110 ± 70 160 вс
<b>UM-686.</b> Comment	<b>Core 20(4): 307 to 315cm</b> (DP): basal peat to determine onset of	<b>4640 ± 130</b> <b>2690 BC</b> f peat deposition.

		$780\pm70$
UM-557.	Core 20: 91cm	ad 1170

Comment (PG): wood dates appearance of trees on islands.

		$4590 \pm 100$
UM-651.	Core 17(3): 300 to 305cm	2640 вс
T2 4	_	

Basal peat to determine onset of peat deposition (26° 26' 55" N, 80° 17' 10" W). Collected at 5.0m above MSL.

		$1280\pm70$
UM-665.	Core 15(3): 170cm	ad 670

Basal hammock peat dates onset of hammock peat deposition (26° 31' 10" N, 80° 19' 40" W). Collected at 5.3m above MSL.

### **Everglades marl series**

Peat and marl samples from 2 cores in the Everglades, Florida (25° 48' 55" N, 80° 43' 15" W). Coll and subm 1975 by P Gleason and P Stone, CSFFCD and M Kirschbaum, Univ Miami.

*General Comment* (PG): marl deposition correlates to a dry period in the history of the Everglades. Peat samples bracket marls to serve as a cross-check to marl dates. Collected at 2.3m above MSL.

# UM-695. Core 26-2: 47 to 53cm $3180 \pm 80$ 1230 BC

Peat sample serves as a lower bracket to marl (UM-697).

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UM-696. Core 26-7: 27 to 33cm	2040 ± 80 90 вс
Peat sample serves as upper bracket to marl (UM-697).	2440 . 00
UM-697. Core 26-4,5: 37 to 44cm	2440 ± 90 490 вс
<i>Periphyton</i> marl with mullosk and gastropod shells.	9420 + 100
UM-698. Core 27-3,4: 36 to 43cm	$\frac{2430 \pm 100}{480 \text{ BC}}$
Periphyton mart with mullosk and gastropod shells.	2010 + 00
<b>UM-699.</b> Core 27-1: 45 to 52cm Peat sample serves as lower bracket to marl (UM-698).	5210 ± 80 1260 вс
T cat sample serves as lower bracket to marr (2.12. 10.1)	$2020 \pm 70$
UM-700. Core 27-6: 27 to 34cm	2080 ± 70 130 вс
JM-664. Everglades peat	4520 ± 160 2570 вс

Basal peat from Everglades marsh dates onset of peat deposition. The Everglades, Florida (25° 48' 55" N, 80° 43' 15" W), 100 to 105cm. Coll and subm 1975 by P Gleason and P Stone.

#### UM-556. The Everglades

Shells (*Chione cancellata*) from a peat core, 196 to 210cm, in Conservation Area 2A, The Everglades, Florida (26° 20' N, 80° 24' W). Dates last marine influence in area. Coll 1974 by P Gleason and P Stone; subm 1975 by P Gleason.

# UM-666. Lake Okeechobee Core 11(3)

Mucky peat from a core at depth 175cm from Kreamer I., Lake Okeechobee, Florida (26° 46' 00" N, 80° 43' 30" W). Dates end of peat deposition or erosional surface. Coll and subm 1975 by P Gleason and P Stone. *Comment* (PG): Sample collected at 4.9m above MSL.

#### 4720 ± 90 2770 вс

 $970 \pm 80$ 

ad 980

>37,550

2500 ± 80 550 вс

# UM-635. Corkscrew Swamp CS-1: 173 to 183cm 2770 BC Basal peat sample from Corkscrew Swamp Sanctuary, W of Immo-

kalee, Florida. Dates onset of peat deposition in swamp. Coll 1975 by P Gleason and P Stone; subm 1975 by M Deuver, Natl Audobon Soc.

#### UM-653. Adams Beach salt marsh

Sandy peat from a core in a salt marsh at Adams Beach, Taylor Co, Florida (29° 52′ 30″ N, 83° 38′ 18″ W). Date may correlate to sea level rise. Coll and subm 1975 by C Wayne and R S Murali, Florida State Univ, Tallahassee, Florida.

# Baker's Haulover and Cape Florida series

Marine carbonate sediments coll by hand scooping of surface sediments at Baker's Haulover Beach (25° 54' N, 80° 07' W) and Cape Florida (25° 40' N, 80° 10' W). Coll and subm 1975 by R Goldstein, Univ Miami. General Comment (RG): dated to compare sediment transports and to correlate sediment size with age.

UM-674.	Cape Florida, A: 250 to 5000 $_{\mu}$	3660 ± 100 1710 вс
UM-675.	Baker's Haulover, B: 250 to 500 $_{\mu}$	5090 ± 110 3140 вс
UM-676.	Cape Florida, A: 125 to $250_{\mu}$	2700 ± 80 750 вс
UM-677.	Baker's Haulover, B: 2000 to $4000\mu$	5550 ± 100 3600 вс
UM-678.	Baker's Haulover, B: 125 to $250_{\mu}$	5180 ± 160 3230 вс
UM-679.	Cape Florida, A: 2000 to $4000\mu$	6320 ± 130 4370 вс
UM-680.	Baker's Haulover, B: 2000 to $4000\mu/B$	12,515 ± 360 10,565 вс

# **Central Delaware shelf series**

Shells from 2 cores off Delaware coast. Dates sedimentation rate during Holocene transgression. Coll 1973 by R E Sheridan; subm 1974 by M S Lipp and W L Stubblefield, NOAA.

		+ 985
		10,710
		-1125
UM-338.	15(MG:G-NOAA)	8760 вс

340 to 346cm from top of core (34° 55' 00" N, 75° 57' 00" W).

# UM-339. 16(MG:G-NOAA)

#### 11,000 ± 240 9050 вс

575 to 585cm from top of core (34° 56' 30" N, 75° 53' 42" W). Comment (WLS): previously dated by Teledyne Isotopes, Inc (unpub) at 12,400 BP.

### **Desoto Canyon series**

Core of calcareous mud from continental slope, Desoto Canyon, Gulf of Mexico (29° 00' N, 87° 36' W). Continuation of a study on paleoclimatology of Quaternary sediments from NE Gulf of Mexico (R, v 17, p 241-242; Emiliani *et al*, 1975). Coll 1974 by S Gartner; subm 1975 by C Emiliani and L Ling, Univ Miami.

		$4910 \pm 140$
UM-688.	GS7102-7, 3 to 8cm	2690 вс

		$8965 \pm 180$
UM-689.	GS7102-7, 72 to 77cm	7015 вс
		$16,660 \pm 500$
UM-690.	GS7102-7, 161 to 163cm	14,710 вс
		+470
		19,020
UM-691.	GS7102-7, 211 to 219cm	17,070 вс
		+590
		21,850
		-640
UM-692.	GS7102-7, 221 to 228cm	19,900 вс
		$15,560 \pm 420$
UM-693.	GS7102-7, 341 to 349cm	13,610 вс
		+1320
		22,570
		-1590
UM-694.	GS7102-7, 351 to 358cm	20,620 вс
	B. Italy	
	<i>,</i>	$20,\!290 \pm 710$

# UM-548. Tyrrenian Sea, T71-3 16

Siderite (FeCO<sub>3</sub>) from top of core from the Tyrrenian abyssal plain (39° 45' N, 14° 30' E). Dated to determine origin of siderite. Coll 1974 by R Sartori, CNR Bologna, Italy; subm 1975 by E Bonatti, RSMAS, Miami, Florida.

C. St Croix

#### 2155 ± 170 205 вс

18,340 вс

#### UM-420. Westend Saltpond

Peat from core taken at Westend Saltpond, St Croix, Virgin Islands (17° 41' 13" N, 64° 53' 21" W). Date for Holocene sea level records. Coll 1974 by L C Gerhard, West Indies Lab, St Croix; subm 1975 by L C Gerhard and E Swietelsky, Univ Miami.

#### D. Bahamas

#### **Tongue of the Ocean series**

Coral, sclerosponge, and sediment samples blasted from reef wall at various locations along the Tongue of the Ocean, Bahamas. Coll and subm 1976 by W Schlager, RSMAS, Miami.

# $\begin{array}{r} 125\pm80\\ \text{ad}\,1825 \end{array}$

Sclerosponge in 82.3m water (24° 02′ 00″ N, 77° 10′ 45″ W). Date for stratigraphy of reef wall.

UM-709. 76-5-7

UM-708. 76-5-4

4460 ± 90 2510 вс

Coral (Porites) from same location as UM-708.

#### UM-710. 76-6-1

Coral (Montastrea annularis) from same location as UM-708, at depth 137m.

### UM-713. 76-14-1

Coral (*Montastrea annularis*) from depth 95.1m (23° 29' 42" N, 76° 34' 06" W). *Comment* (WS): UM-709, -710, and -713 are shallow water corals that probably grew during a lower stand of sea level.

# UM-711. 76-9-2A

Oolites from depth 82.9m (24° 02' 24" N, 77° 11' 12" W).

UM-712. 76-9-2B

3490 ± 85 1540 вс

 $770 \pm 60$ 

AD 1180

Lithified skeletal and ooid sand from same location as UM-711. *Comment* (WS): UM-711 and -712 date sediment accretion rate on reef wall.

### **Fresh Creek series**

Carbonates from Andros I. adjacent to runway at Fresh Creek (24° 41′ 53″ N, 77° 48′ 37″ W). Dated to determine if marine sediments are a source of CaCO<sub>3</sub> in freshwater sediments deposited by Fresh Creek. Coll 1974 and subm 1975 by P Gleason and P Stone.

<b>UM-631.</b> Fresh Creek 1	14,560 ± 230
Oolitic limestone bedrock coll at surface.	12,610 вс
<b>UM-632.</b> Fresh Creek 2	2900 ± 120
Brackish marine carbonate surface sodiment	950 вс

brackish marme carbonate, surface sediment.

# UM-633. Fresh Creek 3 $1040 \pm 120$ AD 910 $1040 \pm 120$

Silt size freshwater calcitic mud coll in a living algal mat.

#### References

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## 8310 ± 80 6360 вс

 $10.000 \pm 85$ 

8050 вс