

QUEENS COLLEGE RADIOCARBON MEASUREMENTS IV

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The following list includes radiocarbon analyses of samples related to studies of Holocene sea levels completed since the publication of the last list (R, 1980, v 22, p 1073-1083). Sample preparation and counting for liquid scintillation samples remain the same. However, an additional gas-proportional facility was added in 1981 to handle the analyses of small samples, some of which are included in this list. The new system consists of two 660cc OFHC copper counters built at Queens College. Samples are counted over at least two 2800 minute intervals alternating with backgrounds and standards counted over 1400 minute intervals. Ages are based on the Libby half-life of 5568 years and include 1σ standard deviations of sample, standard, and background activities.

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New York

Marlboro Marsh series

This series was taken from Marlboro Marsh. All samples are basal peat, at coordinates (41° 36' 40" N, 73° 57' 58" W), and coll 1979 by J Miller, H Craig and L J Cinquemani except where noted.

QC-341. Marlboro Marsh 1	2330 ± 240
3.1 to 3.3m below mean high water.	
QC-340. Marlboro Marsh 2	3010 ± 120
4.1 to 4.3m below mean high water.	
QC-342. Marlboro Marsh 3	4150 ± 100
4.8 to 5m below mean high water.	
QC-343. Marlboro Marsh 4	4390 ± 220
5.8 to 6m below mean high water.	
QC-705. Marlboro Marsh 5	4260 ± 130
7.15 to 7.45m below mean high water. Coll by H Craig, S Jencius, and J Wilson.	
QC-686. Marlboro Marsh 6	4570 ± 110
8.2 to 8.6m below mean high water. Coll by W S Newman, H Craig, S Jencius, and J Wilson. <i>Comment:</i> Marlboro 5 and 6 are on stiff clayey substrates and may not be valid sea level indicators.	

Constitution Island series

This series was taken from Constitution I. Marsh. All samples are basal peat. Coordinates for Constitution I. marsh are: Constitution I. 2, 7, and 12 (41° 24' 22" N, 73° 56' 53" W), Constitution I. 5, 8, 11, and 13 (41° 24' 40" N, 73° 56' 53" W), and Constitution I. 1, 3, 4, 6, 9, 10, and 14 (41° 24' 23" N, 73° 56' 30" W).

QC-691. Constitution I. 1 2320 ± 500

1 to 1.3m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, and J Wilson. *Comment:* sample yields only freshwater diatoms; also some benzene evaporated.

QC-1039. Constitution I. 2 2160 ± 130

1.7 to 2.08m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, B Duffy, J Schneller, H Greenberg, and K Tessmer.

QC-690. Constitution I. 3 1440 ± 100

2.1 to 2.4m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, and J Wilson. *Comment:* sample yields only freshwater diatoms.

QC-695. Constitution I. 4 2440 ± 100

2.9 to 3.4m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, and J Wilson.

QC-226. Constitution I. 5 2320 ± 100

3.7 to 3.9m below mean high water. Coll 1976 by L J Cinquemani.

QC-693. Constitution I. 6 3210 ± 110

4.7 to 5.2m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, and J Wilson.

QC-1042. Constitution I. 7 4660 ± 130

5.8 to 6.1m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, B Duffy, J Schneller, H Greenberg, and K Tessmer.

QC-276. Constitution I. 8 4110 ± 100

5.95 to 6.15m below mean high water. Coll 1976 by L J Cinquemani.

QC-694. Constitution I. 9 3760 ± 120

6.1 to 6.6m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, and J Wilson.

QC-696. Constitution I. 10 2460 ± 110

6.7 to 7.2m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, and J Wilson. *Comment:* field notes suggest some sediment flowed into sample.

QC-227. Constitution I. 11 4230 ± 120

7.5 to 7.7m below mean high water. Coll 1976 by L J Cinquemani.

QC-1040. Constitution I. 12 6030 ± 290

7.9 to 8.3m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, B Duffy, J Schneller, H Greenberg, and K Tessmer.

QC-189. Constitution I. 13 5570 ± 300

9.25 to 9.45m below mean high water. Coll 1976 by L J Cinquemani.

QC-692. Constitution I. 14 4660 ± 140

9.35 to 9.75m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, and J Wilson. *Comment:* Marine Transgression appears more pronounced on E side of marsh.

QC-706. Manitou Marsh 3530 ± 110

Basal peat, 3.65 to 4m below mean high water (41° 20' 00" N, 73° 58' 00" W). Coll 1979 by H Craig, S Jencius, and J Wilson.

Iona Island series

This series was taken from Ring Meadow, Iona Island. All samples are basal peat except where noted and at coordinates (41° 18' 00" N, 73° 58' 50" W).

QC-574. Iona I. 1 390 ± 100

0.94 to 1.14m below mean high water. Coll 1978 by W S Newman.

QC-763. Iona I. 2 1040 ± 120

0.6 to 1m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-764. Iona I. 3 2240 ± 120

Wood and peat, 1.7 to 2m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-575. Iona I. 4 1460 ± 90

1.98 to 2.18m below mean high water. Coll 1978 by W S Newman.

QC-1021. Iona I. 5 3430 ± 120

2.5 to 2.75m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, J Schneller, K Tessmer, and H Greenberg.

QC-765. Iona I. 6 2140 ± 100

2.7 to 3m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-576. Iona I. 7 2830 ± 130

Wood, 3.24 to 3.44m below mean high water. Coll 1978 by W S Newman.

QC-1022. Iona I. 8 3510 ± 150

3.41 to 3.71m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, J Schneller, K Tessmer, and H Greenberg.

- QC-766. Iona I. 9** **2840 ± 110**
Peat, 3.6 to 3.9m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.
- QC-1019. Iona I. 10** **4270 ± 260**
4.37 to 4.67m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, J Schneller, K Tessmer, and H Greenberg.
- QC-274. Iona I. 11** **3610 ± 120**
4.4 to 4.6m below mean high water. Coll 1976 by L J Cinquemani and W S Newman.
- QC-187. Iona I. 12** **3800 ± 160**
4.55 to 4.75m below mean high water. Coll 1976 by L J Cinquemani.
- QC-577. Iona I. 13** **4520 ± 120**
4.89 to 5.09m below mean high water. Coll 1978 by W S Newman.
- QC-767. Iona I. 14** **3140 ± 110**
4.9 to 5.3m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.
- QC-1023. Iona I. 15** **4800 ± 190**
5.6 to 5.85m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, J Schneller, K Tessmer, and H Greenberg.
- QC-768. Iona I. 16** **2960 ± 100**
6.1 to 6.5m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.
- QC-1020. Iona I. 17** **4370 ± 270**
6.25 to 6.55m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, J Schneller, K Tessmer, and H Greenberg.
- QC-1024. Iona I. 18** **5060 ± 270**
6.6 to 6.9m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, J Schneller, K Tessmer, and H Greenberg.
- QC-775. Iona I. 19** **3870 ± 120**
Peat, 7 to 7.4m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.
- QC-776. Iona I. 20** **2170 ± 100**
Peat, 7.6 to 8m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.
- QC-777. Iona I. 21** **2570 ± 90**
Peat, 8.1 to 8.5m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-778. Iona I. 22 4270 ± 120

Peat, 9.6 to 10m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-186. Iona I. 23 3940 ± 140

10.55 to 10.75m below mean high water. Coll 1976 by L J Cinquemani.
General Comment: Iona I. samples 2, 3, 6, 9, 14, 16, 19, 20, 21, 22, and 23 coll along transect 100m S of other samples and yield considerably higher transgression rates. These samples appear to have been taken from SE block of Timp Fault.

Roa Hook series

This series was taken from tidal marsh at Roa Hook (Camp Smith). All samples are basal peat, at coordinates (41° 17' 58" N, 73° 56' 50" W); coll 1978 except where noted. Roa Hook 1-6 are W of E-facing buried (fault?) scarp; other samples of this series are E of scarp.

QC-511. Roa Hook 1 126% modern

From marsh surface. Coll by W S Newman.

QC-569. Roa Hook 2 2490 ± 120

1.94 to 2.14m below mean high water. Coll by W S Newman.

QC-722. Roa Hook 3 2360 ± 100

Wood and basal peat, 2.3 to 2.6m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-567. Roa Hook 4 4280 ± 110

3.83 to 4.03m below mean high water. Coll by W S Newman. *Comment:* result suspect because of data item omission.

QC-568. Roa Hook 5 3170 ± 170

4.01 to 4.21m below mean high water. Coll by W S Newman.

QC-1041. Roa Hook 6 3190 ± 160

4.25 to 4.55m below mean high water (41° 17' 30" N, 73° 56' 00" W). Coll 1980 by W S Newman, L J Cinquemani, B Duffy, J Schneller, H Greenberg, and K Tessmer.

QC-510. Roa Hook 7 3140 ± 170

4.8 to 5m below mean high water. Coll by W S Newman, R R Pardi, G Greengold, and H Craig.

QC-721. Roa Hook 8 3320 ± 110

5.5 to 5.8m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-723. Roa Hook 9 3910 ± 130

6.7 to 7m below mean high water. Coll 1979 by H Craig, S Jencius, and F Ciapetti.

QC-566. Roa Hook 10 **4660 ± 100**

Wood and peat, 6.87 to 7.07m below mean high water. Coll by W S Newman.

QC-1043. Roa Hook 11 **4450 ± 200**

7.5 to 7.95m below mean high water. Coll 1980 by W S Newman, L J Cinquemani, B Duffy, J Schneller, H Greenberg, and K Tessmer.

QC-565. Roa Hook 12 **5470 ± 140**

Wood and peat, 8.6 to 8.8m below mean high water. Coll by W S Newman.

QC-512. Roa Hook 13 **4120 ± 350**

8.8 to 9m below mean high water. Coll by W S Newman.

QC-509. Roa Hook 14 **4550 ± 130**

9.3 to 9.5m below mean high water. Coll by W S Newman, R R Pardi, G Greengold, and H Craig.

QC-573. Roa Hook 15 **6230 ± 120**

Wood, 10.8 to 11m below mean high water. Coll by W S Newman.

Stony Point series

This series was taken from tidal marsh S of Stony Point. All samples are basal peat, at coordinates (41° 14' 40" N, 73° 58' 05" W); coll 1978 by W S Newman, L J Cinquemani, H Craig, S Nelson, and V Newman except where noted.

QC-505. Stony Point 1 **3100 ± 110**

3.2 to 3.4m below mean high water.

QC-506. Stony Point 2 **3740 ± 200**

5.8 to 6m below mean high water.

QC-469. Stony Point 3 **4830 ± 110**

5.9 to 6.1m below mean high water. Coll 1977 by W S Newman, L J Cinquemani, H Craig, G Greengold, V Newman, and S Nelson.

Oscawana Island series

This series was taken from Tidal Marsh, Oscawana I. All samples are basal peat, at coordinates (41° 13' 45" N, 73° 55' 50" W); coll 1976 by L J Cinquemani except where noted.

QC-228. Oscawana I. 1 **1870 ± 90**

2.5 to 2.7m below mean high water.

QC-729. Oscawana I. 2 **330 ± 100**

5.6 to 5.9m below mean high water. Coll 1979 by H Craig and S Jencius. *Comment:* Oscawana 2 date seems inexplicable for its depth.

QC-221B. Oscawana I. 3 **4570 ± 120**

6.6 to 6.8m below mean high water.

QC-264. Oscawana I. 4 **4500 ± 100**

6.8 to 7m below mean high water.

QC-221A. Oscawana I. 5 **5150 ± 210**

7.3 to 7.5m below mean high water.

Cedar Pond series

This series was taken from Cedar Pond Brook Marsh. All samples are basal peat, at coordinates (41° 13' 30" N, 73° 58' 00" W); coll 1979.

QC-770. Cedar Pond 1 **800 ± 100**

0.7 to 1m below mean high water. Coll by H Craig, S Jencius, F Ciapetti, and H Greenberg.

QC-772. Cedar Pond 2 **1740 ± 100**

1.7 to 2m below mean high water. Coll by H Craig, S Jencius, F Ciapetti, and H Greenberg.

QC-712. Cedar Pond 3 **1940 ± 110**

2.5 to 2.8m below mean high water. Coll by H Craig and S Jencius.

QC-773. Cedar Pond 4 **2650 ± 100**

2.5 to 2.8m below mean high water. Coll by H Craig, S Jencius, F Ciapetti, and H Greenberg.

QC-771. Cedar Pond 5 **2890 ± 130**

Wood and peat, 3.1 to 3.4m below mean high water. Coll by H Craig, S Jencius, F Ciapetti, and H Greenberg.

QC-810. Cedar Pond 6 **3030 ± 100**

3.2 to 3.6m below mean high water. Coll by H Craig, S Jencius, J Gordon, F Ciapetti, and H Greenberg.

QC-709. Cedar Pond 7 **2220 ± 120**

3.25 to 3.6m below mean high water. Coll by H Craig, S Jencius, and S Olgun.

QC-774. Cedar Pond 8 **3090 ± 110**

3.4 to 3.7m below mean high water. Coll by H Craig, S Jencius, F Ciapetti, and H Greenberg.

QC-811. Cedar Pond 9 **2700 ± 120**

3.5 to 3.9m below mean high water. Coll by H Craig, S Jencius, J Gordon, F Ciapetti, and H Greenberg.

QC-710. Cedar Pond 10 **3660 ± 110**

3.85 to 4.2m below mean high water. Coll by H Craig and S Jencius.

- QC-812. Cedar Pond 11** **3860 ± 150**
4.2 to 4.6m below mean high water. Coll by H Craig, S Jencius, J Gordon, F Ciapetti, and H Greenberg.
- QC-711. Cedar Pond 12** **3630 ± 110**
5.1 to 5.5m below mean high water. Coll by H Craig and S Jencius.
- QC-718. Cedar Pond 13** **4400 ± 130**
6.6 to 7m below mean high water. Coll by H Craig and S Jencius.
- QC-719. Cedar Pond 14** **5080 ± 130**
6.7 to 7m below mean high water. Coll by H Craig and S Jencius.

Piermont series

This series was taken from Piermont Tidal Marsh, Tallman State Park. All samples are basal peat, at coordinates (41° 01' 30" N, 73° 54' 00" W); coll 1979 by H Craig and S Jencius except where noted.

- QC-733. Piermont 1** **<90**
0.7 to 1m below mean high water.
- QC-734. Piermont 2** **1420 ± 120**
1.4 to 1.7m below mean high water.
- QC-735. Piermont 3** **2000 ± 110**
3 to 3.3m below mean high water.
- QC-211. Piermont 4** **2300 ± 160**
2.8 to 3m below mean high water. Coll 1976 by B Cirolli, M Drillings, J Gordon, and M Balarazo.
- QC-736. Piermont 5** **2550 ± 140**
4.5 to 4.8m below mean high water.
- QC-732. Piermont 6** **2990 ± 100**
4.5 to 4.8m below mean high water.
- QC-730. Piermont 7** **3050 ± 100**
5.2 to 5.5m below mean high water.
- QC-738. Piermont 8** **3320 ± 140**
6.65 to 7m below mean high water.
- QC-262. Piermont 9** **3460 ± 100**
4.85 to 5.05m below mean high water. Coll by L J Cinquemani.
- QC-731. Piermont 10** **3530 ± 110**
Wood hash, 5.1 to 5.2m below mean high water. *Comment:* samples are not basal peat above Piermont 7.
- QC-737. Piermont 11** **3730 ± 200**
5.6 to 5.9m below mean high water.

- QC-739. Piermont 12** **3790 ± 90**
7.6 to 8m below mean high water.
- QC-261. Piermont 13** **4610 ± 110**
8.34 to 8.54m below mean high water. Coll by L J Cinquemani.
- QC-740. Piermont 14** **4300 ± 280**
8.6 to 9m below mean sea level.
- QC-741. Piermont 15** **4720 ± 120**
9.6 to 10m below mean high water.
- QC-742. Piermont 16** **5320 ± 170**
11.1 to 11.4m below mean high water. Coll by H Craig, S Jencius, and F Ciapetti.
- QC-808. Piermont 17** **5480 ± 140**
11 to 11.5m below mean high water. Coll by H Craig, S Jencius, J Gordon, F Ciapetti, and H Greenberg.
- QC-809. Piermont 18** **6840 ± 230**
11.5 to 12m below mean high water. Coll by H Craig, S Jencius, J Gordon, and H Greenberg.
- QC-295. Pelham Bay Park** **1800 ± 90**
Basal peat, 2.05 to 2.25m below mean high water (40° 52' 06" N, 73° 47' 36" W), Pelham Bay Park, Bronx. Coll 1976 by W S Newman, L J Cinquemani, and H Craig.

East River series

This series consists of commercial borehole samples taken from East R. All samples are basal peat, at coordinates (40° 47' 45" N, 73° 49' 50" W) and coll 1976 by Mueser, Rutledge, Johnson, and DeSimone, Consulting Engineers except where noted.

- QC-267. College Point Marsh, Core B-206B4, Sample 3** **5650 ± 170**
12.7 to 13m below mean high water.
- QC-306. Roosevelt Ave 1** **7980 ± 390**
15.5 to 15.7m below mean high water (40° 48' N, 73° 48' W). Coll by M Marty, Transit Authority.
- QC-266. College Point Marsh, Core B-288, Sample 13** **7120 ± 240**
17.7 to 18m below mean high water.
- QC-265. College Point Marsh, Core B-219, Sample 15** **6370 ± 100**
18.1 to 18.3m below mean high water.

QC-269. College Point Marsh, Core B-227, Sample 15 **8100 ± 100**

19.7 to 20.1m below mean high water.

QC-268. College Point Marsh, Core B-218, Sample 13 **12,400 ± 260**

20 to 20.3m below mean high water.

Westway series

This series was taken along lower W side of Manhattan I. All samples are organic-rich sediments overlying glacial gravels, sands, or rock. Coll 1979 by Mueser, Rutledge, Johnston, and DeSimone, Consulting Engineers except where noted.

QC-1399. Westway MJ0682-0012-057-BVB3 **2700 ± 150**

Peat, 1.7 to 1.8m below mean high water (40° 27' 20" N, 74° 10' 45" W).

QC-1381. Westway Core TT-412, Sample 300 **10,700 ± 180**

13.7 to 14.3m below mean high water (40° 45' 10" N, 74° 00' 18" W).

QC-1382. Westway Core VT-209, Sample 4D **2030 ± 150**

18.7 to 19.4m below mean high water (40° 43' 28" N, 74° 00' 18" W).

QC-1029. Westway Core HT-1270, Sample 130D **8190 ± 130**

Basal peat, 19.2 to 19.8m below mean high water (40° 43' 31" N, 74° 00' 40" W), from West Side Expressway-Holland Tunnel.

QC-1330. Westway Core VT-249, Sample 8D **490 ± 110**

Intrusive wood fragment probably from pier piling, 21.3 to 21.9m below mean high water (40° 43' 50" N, 74° 00' 46" W).

QC-1380. Westway Core VT-203, Sample 11D **8960 ± 270**

21.3 to 21.9m below mean high water (40° 43' 28" N, 74° 00' 56" W).

QC-1028. Westway Core HV-21, Sample 60D **8750 ± 170**

Basal peat, 21.3 to 22m below mean high water (40° 43' 23" N, 74° 00' 59" W), from West Side Expressway-Chambers St.

QC-1389. Westway Core VT-214, Sample 9D **7650 ± 190**

21.5 to 22m below mean high water (40° 43' 32" N, 74° 00' 57" W).

QC-1027. Westway Core HV-13, Sample 11D **10,500 ± 500**

Basal peat, 22 to 22.6m below mean high water (40° 43' 26" N, 74° 00' 58" W), from West Side Expressway-Chambers St.

QC-1026. Westway Core HT-120, Sample 13D **9170 ± 230**

Basal peat, 22.9 to 23.5m below mean high water (40° 43' 34" N, 74° 00' 43" W), from West Side Expressway-Holland Tunnel.

- QC-1184. Westway Core HT-124, Sample 19D 5540 ± 160**
Shell probably allochthonous, 23.2 to 23.5m below mean high water (40° 43' 33" N, 74° 00' 40" W), from along Holland Tunnel, right-of-way on E side of Hudson R.
- QC-1321. Westway Core TT-313, Sample 12D 7920 ± 200**
24.4 to 25m below mean high water (40° 44' 27" N, 74° 00' 40" W).
- QC-1374. Westway Core VT-215, Sample 15D 8690 ± 190**
Organic rich sediment just above bedrock, 24.4 to 25m below mean high water (40° 43' 30" N, 74° 00' 59" W).
- QC-1025. Westway Core HT-123U, Sample 27D 11,300 ± 220**
Basal peat, 24.8 to 25.5m below mean high water (40° 43' 32" N, 74° 00' 40" W), from West Side Expressway-Holland Tunnel.
- QC-1324. Westway Core TT-335, Sample 14D 11,100 ± 250**
27.4 to 28m below mean high water (40° 44' 30" N, 74° 00' 36" W).
- QC-1322. Westway Core TT-314, Sample 15D 11,420 ± 250**
27.4 to 28m below mean high water (40° 44' 27" N, 74° 00' 40" W).
- QC-1329. Westway Core TT-359, Sample 16D 11,990 ± 220**
29 to 29.6m below mean high water (40° 44' 36" N, 74° 00' 34" W).
- QC-1326. Westway Core TT-352, Sample 17D 11,620 ± 200**
30.5 to 31.1m below mean high water (40° 44' 35" N, 74° 00' 36" W).
- QC-1183. Westway Core RR-114, Sample 22D 9540 ± 120**
Organic silt, 36.6 to 37.2m below mean high water (40° 45' 39" N, 74° 00' 47" W), from Amtrak Tunnel-E shore Hudson R. *Comment:* not basal peat.
- QC-1182. Westway Core RR-126, Sample 27 10,200 ± 170**
Wood fragments overlying glacial gravel, 38.2 to 38.9m below mean high water (40° 45' 36" N, 74° 00' 45" W); coll 1978. *Comment:* probably allochthonous sample.
- QC-1315. Westway Core WT-505, Sample 26D 12,280 ± 260**
Lowest organic material above glacial gravel, 42.7 to 43.3m below mean high water (40° 45' 35" N, 74° 00' 45" W).

Caumsett Marsh series

This series was taken from Caumsett Marsh. All samples are basal peat, at coordinates (40° 56' 30" N, 73° 28' 50" W); coll 1979 by D Habib, W S Newman, L J Cinquemani, H Craig, S Jencius, and J Wilson.

- QC-689. Caumsett Marsh I 780 ± 120**
0.9 to 1.1m below mean high water.

- QC-687. Caumsett Marsh 2** **660 ± 120**
2.05 to 2.35m below mean high water.
- QC-688. Caumsett Marsh 3** **760 ± 140**
2.06 to 2.36m below mean high water.

Eatons Neck series

This series are all basal peats from tidal marsh on Eatons Neck, at coordinates (40° 56' 58" N, 73° 23' 43" W). Coll 1979 by G Wisker.

- QC-681. Eatons Neck 1** **370 ± 120**
0.65 to 0.95m below mean high water.
- QC-679. Eatons Neck 2** **1590 ± 11**
1.4 to 1.55m below mean high water.
- QC-682. Eatons Neck 3** **2520 ± 90**
4.85 to 5.05m below mean high water.

- QC-190. Mt Sinai** **2180 ± 100**
Peat, 4.2 to 4.9m below surface (40° 56' 55" N, 73° 01' 50" W), from Mt Sinai Harbor. Coll 1976 by L J Cinquemani.

Shelter Island series

This series was taken from Bass Creek, Shelter I. All samples are at coordinates (41° 02' 47" N, 72° 18' 50" W); coll 1980 by W S Newman, M Newman, B Duffy, L Bruno, and J Isby.

- QC-1084. Shelter I. 1** **850 ± 150**
Salt marsh-*sphagnum* peat interface, 1.1 to 1.3m below mean high water.
- QC-1083A&B. Shelter I. 2** **3590 ± 130**
Base of *sphagnum* peat sec above glacial drift. Peat and wood, 6.6 to 6.75m below mean high water.
- QC-1082. Queens Mall, Core 5, Sample 14B** **32,000**
+ 3800
- 2600
Peat, 22.8 to 23.5m below mean high water (40° 44' 05" N, 73° 52' 30" W), from Queens Mall, Rego Park, near intersec of Queens Blvd and Woodhaven Blvd. Coll 1973 by Woodward Moorehouse Assoc. *Comment:* sample in Flushing Formation (see Newman, 1977).

*New Jersey***Cheesequake series**

This series was taken from salt marsh in Cheesequake State Park. All samples are basal peat except Cheesequake 6, at coordinates (40° 26' 05" N, 74° 17' 20" W); coll 1979 by W S Newman, H Craig, S Jencius, H Greenberg, and R Ortner except where noted. Cheesequake 4 through 6 appear anomalous in age and/or elev.

QC-844. Cheesequake 1 **1210 ± 190**
2.6 to 2.8m below mean high water.

QC-847. Cheesequake 2 **1960 ± 130**
2.8 to 3.05m below mean high water.

QC-842. Cheesequake 3 **2080 ± 160**
3.3 to 3.5m below mean high water.

QC-848. Cheesequake 4 **930 ± 170**
4.5 to 4.8m below mean high water.

QC-846. Cheesequake 5 **530 ± 150**
9.25 to 9.65m below mean high water.

QC-845. Cheesequake 6 **4820 ± 100**
Peat, 10.9 to 11.15m below mean high water.

QC-896. Cheesequake 7 **7230 ± 190**
11.8 to 12.1m below mean high water. Coll by H Craig, S Jencius, H Greenberg, and K Tessmer.

Sea Island City series

This series was taken from Sea Island City. All samples are basal peat and coll 1979 by W S Newman, H Craig, S Jencius, H Greenberg, and R Ortner.

QC-849. Sea I. City 1 **<160**
0.7 to 0.9m below mean high water (39° 10' 40" N, 74° 43' 45" W).
Comment: modern rootlet contamination.

QC-850. Sea I. City 2 **920 ± 160**
1.3 to 1.5m below mean high water (39° 10' 30" N, 74° 43' 35" W).

QC-851. Sea I. City 3 **2350 ± 100**
From layer 2.8 to 3m below mean high water (39° 10' 15" N, 74° 43' 25" W).

QC-852. Sea I. City 4 **2260 ± 100**
3.5 to 3.7m below mean high water (39° 10' 00" N, 74° 43' 15" W).

QC-853. Sea I. City 5 **2760 ± 100**
4.75 to 4.95m below mean high water (39° 09' 45" N, 74° 43' 05" W).

QC-854. Sea I. City 6 **3440 ± 110**
5.45 to 5.75m below mean high water (39° 09' 40" N, 74° 42' 45" W).

QC-855. Sea I. City 7 **3960 ± 110**
7.3 to 7.6m below mean high water (39° 09' 30" N, 74° 42' 25" W).

*Connecticut***Indian River series**

This series was taken from Indian River, Milford. All samples are basal peat at coordinates (41° 13' 10" N, 73° 02' 12" W); coll 1980 by W S Newman, H Greenberg, L J Cinquemani, K Tessmer, J Schneller, and W Krulish.

QC-1017A&B. Indian R 1 **2970 ± 100**
3.2 to 3.65m below mean high water.

QC-1012A&B. Indian R 2 **3500 ± 120**
4.25 to 4.45m below mean high water.

QC-1010A&B. Indian R 3 **3650 ± 100**
5.3 to 5.7m below mean high water.

QC-1016. Gulf Pond **1520 ± 190**
Basal peat, 2 to 2.2m below mean high water (41° 13' 00" N, 73° 12' 00" W), from Gulf Pond, Milford. Coll 1980 by W S Newman, L J Cinquemani, H Greenberg, K Tessmer, J Schneller, and W Krulish.

Oyster Creek series

This series was taken from Oyster Creek, Old Saybrook. All samples are basal peat at coordinates (41° 15' 20" N, 72° 21' 00" W); coll 1980 by W S Newman, L J Cinquemani, H Greenberg, K Tessmer, J Schneller, and W Krulish.

QC-1015A. Oyster Creek 1 **3970 ± 390**
3.87 to 3.97m below mean high water.

QC-1014. Oyster Creek 2 **4460 ± 160**
6.53 to 6.83m below mean high water.

QC-1014B&C. Oyster Creek 3 **3850 ± 240**
6.42 to 6.83m below mean high water.

QC-1013. Oyster Creek 4 **4780 ± 180**
6.95 to 7.15m below mean high water.

QC-1011. Oyster Creek 5 **5510 ± 130**
Shell in basal peat, 7.9 to 8.05m below mean high water.

Delaware

QC-807. Fowler Beach **290 ± 200**
Basal peat, 0.4 to 0.55m below mean high water (38° 53' 00" N, 74° 16' 18" W), from Fowler Beach. Coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

*Maryland***Radcliffe Creek series**

This series was taken from Radcliffe Creek Bridge. All samples are basal peat at coordinates (59° 12' 00" N, 76° 04' 00" W); coll 1979 by W S Newman, H Craig, S Jencius, H Greenberg, R Ortner, and G G Connally.

QC-859. Radcliffe Creek 1 **1230 ± 160**

1.8 to 2m below mean high water.

QC-857. Radcliffe Creek 2 **3370 ± 150**

Wood, small acorn, and basal peat, 5 to 5.3m below mean high water.

QC-856. Radcliffe Creek 3 **4510 ± 120**

10.7 to 11m below mean high water.

Blackwater series

This series was taken from Blackwater Wildlife Refuge. All samples coll 1979 by W S Newman, H Craig, S Jencius, H Greenberg, and R Ortner.

QC-860. Blackwater 1 **2840 ± 140**

Basal peat and some wood hash, 3.2 to 3.45m below mean high water (38° 23' 32" N, 76° 03' 45" W).

QC-861. Blackwater 2 **2490 ± 130**

Basal peat and some wood, 3.5 to 3.7m below mean high water (38° 23' 23" N, 76° 03' 50" W).

QC-862. Blackwater 3 **2650 ± 180**

Basal peat, 4 to 4.2m below mean high water (38° 23' 15" N, 76° 03' 55" W).

QC-863. Blackwater 4 **3750 ± 120**

Basal peat and wood hash, 5.4 to 5.7m below mean high water (38° 23' 00" N, 76° 04' 00" W).

*North Carolina***Roanoke Island series**

This series was taken from Baumtown, Roanoke I. All samples are basal peat at coordinates (35° 52' 30" N, 75° 39' 00" W); coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

QC-792. Roanoke I. 1 **760 ± 140**

0.4 to 0.6m below mean high water.

QC-805. Roanoke I. 2 **2950 ± 280**

1.1 to 1.3m below mean high water.

QC-804. Roanoke I. 3 **2630 ± 150**

1.4 to 1.7m below mean high water.

Croatan National Forest series

This series was taken from Croatan Natl Forest. All samples are basal peat at coordinates (34° 42' N, 77° 06' W); coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

QC-801. Croatan Forest 1	1180 ± 190
0.4 to 0.7m below mean high water.	
QC-802. Croatan Forest 2	1740 ± 110
1.6 to 1.9m below mean high water.	

Lilliput Creek series

This series was taken from Lilliput Creek, Rte 133 near Wilmington. All samples are at coordinates (34° 04' 30" N, 77° 57' 27" W); coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

QC-798. Lilliput Creek 1	1450 ± 150
Basal peat, 0.6 to 0.8m below mean high water.	
QC-799. Lilliput Creek 2	1390 ± 130
Basal peat, 1.25 to 1.45m below mean high water.	
QC-793A. Lilliput Creek 3	3390 ± 110
Wood, 3.1 to 3.3m below mean high water.	
QC-793B. Lilliput Creek 4	3400 ± 110
Basal peat, 3.5 to 3.8m below mean high water.	
QC-794. Lilliput Creek 5	3600 ± 120
Wood and peat, 4.2 to 4.5m below mean high water.	
QC-795. Lilliput Creek 6	3260 ± 190
Basal peat, 4.5 to 4.9m below mean high water.	
QC-796. Lilliput Creek 7	3870 ± 180
Basal peat, 5.45 to 5.95m below mean high water.	
QC-797. Lilliput Creek 8	5680 ± 250
Wood and basal peat, 8.1 to 8.36m below mean high water.	

*South Carolina***Pee Dee River series**

QC-603. Pee Dee R 1	2630 ± 110
Woody peat, 2.6 to 2.8m below mean high water. Coll 1978 by W S Newman and F Stapor.	
QC-602. Pee Dee R 2	3690 ± 150
Basal peat, 3.4 to 3.6m below mean high water. Coll 1978 by W S Newman and F Stapor.	
QC-815. Pee Dee R 3	5300 ± 150
Wood, in basal peat, 3.5 to 3.9m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.	

QC-604. Pee Dee R 4 4680 ± 120

Wood, 4.8 to 5m below mean high water. Coll 1978 by W S Newman and F Stapor.

QC-813. Pee Dee R 5 5630 ± 130

Peat, 6.58 to 6.8m below mean high water, 0.3m above sand stratum. Coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

QC-814. Pee Dee R 6 6140 ± 200

Basal peat, 6.65 to 7.1m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

Santee River series

This series was taken from Santee River Estuary near Rte 17. All samples are at coordinates (33° 11' 36" N, 79° 23' 48" W); coll 1978 by W S Newman and F Stapor.

QC-596-1. Santee R 1 3110 ± 90

Basal peat, 3 to 3.2m below mean high water.

QC-596-2. Santee R 2 3140 ± 140

Basal peat, 3 to 3.2m below mean high water. Repeat assay of Santee R 1.

QC-597. Santee R 3 4550 ± 150

Wood and peat, 3.87 to 4.15m below mean high water.

QC-595. Santee R 4 4420 ± 410

Basal peat, 4.05 to 4.35m below mean high water.

QC-598. Santee R 5 3980 ± 280

Wood in paleosol, 5.3m below mean high water.

Cooper River series

This series was taken from Cooper River Estuary. All samples are basal peat and coll 1978 by W S Newman and D J Colquhoun except where noted.

QC-583. Cooper R 1 2040 ± 110

Wood stump in basal peat on Cooper Marl, 1m below mean high water (32° 55' 30" N, 79° 53' 42" W).

QC-611. Cooper R 2 2150 ± 110

1.6 to 1.8m below mean high water (32° 58' 30" N, 79° 54' 05" W).

QC-585. Cooper R 3 2700 ± 120

Stump in basal peat on Cooper Marl, 2m below mean high water (32° 58' 31" N, 79° 53' 40" W).

- QC-613. Cooper R 4** **2330 ± 140**
1.6 to 2.3m below mean high water (32° 58' 30" N, 79° 54' 05" W).
- QC-584. Cooper R 5** **3100 ± 100**
2.5 to 2.7m below mean high water (32° 58' 30" N, 79° 54' 05" W).
- QC-588. Cooper R 6** **4140 ± 70**
2.8 to 3.1m below mean high water (32° 59' 50" N, 79° 53' 52" W).
- QC-587. Cooper R 7** **4290 ± 130**
3.4 to 3.7m below mean high water (32° 59' 05" N, 79° 54' 00" W).
- QC-586. Cooper R 8** **5010 ± 140**
4.3 to 4.7m below mean high water (32° 58' 45" N, 79° 53' 37" W).

Wando River series

This series was taken from Hobcaw Creek, Wando River. All samples are at coordinates (32° 48' 00" N, 79° 53' 00" W) and coll 1979 by L J Cinquemani and H Craig.

- QC-703. Wando R 1** **3100 ± 160**
Basal peat, 2 to 2.2m below mean high water.
- QC-702. Wando R 2** **4670 ± 130**
Woody basal peat, 2.75 to 3.05m below mean high water.
- QC-704. Wando R 3** **4760 ± 290**
Basal peat and wood hash, 3.9 to 4.2m below mean high water.

Combahee River series

This series was taken from Combahee River. All samples are peat at coordinates (32° 39' 12" N, 80° 40' 30" W); coll 1978 by W S Newman and F W Stapor except where noted.

- QC-609. Combahee R 1** **2880 ± 110**
2.26 to 2.45m below mean high water.
- QC-610. Combahee R 2** **3330 ± 130**
Woody peat, 2.75 to 2.9m below mean high water.
- QC-828. Combahee R 3** **4430 ± 170**
Basal peat, 3.32 to 3.66m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.
- QC-594. Combahee R 4** **5620 ± 140**
3.65 to 3.8m below mean high water.
- QC-593. Combahee R 5** **5280 ± 120**
4 to 4.2m below mean high water.
- QC-589. Combahee R 6** **5400 ± 120**
4.15 to 4.35m below mean high water (32° 39' 20" N, 80° 40' 14" W).

Coosawatchie River series

This series was taken from Coosawatchie River. All samples are basal peat at coordinates (32° 35' 00" N, 80° 55' 15" W); coll 1979 by D Colquhoun, W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

QC-827. Coosawatchie R 1 **730 ± 110**

0.7 to 1m below mean high water.

QC-826. Coosawatchie R 2 **2130 ± 100**

1.28 to 1.58m below mean high water.

Savannah River series

This series was taken from Savannah River Estuary. All samples are at coordinates (32° 08' 00" N, 80° 59' 30" W); coll 1978 by F Stapor and W S Newman except where noted.

QC-825. Savannah R 1 **3130 ± 130**

Basal peat and some wood, 2 to 2.3m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

QC-600. Savannah R 2 **2320 ± 110**

Peat and some wood, 2.5 to 2.7m below mean high water.

QC-599. Savannah R 3 **3100 ± 100**

Basal peat, 2.7 to 2.9m below mean high water.

QC-821. Savannah R 4 **2440 ± 130**

Basal peat, 3.35 to 3.53m below mean high water. Coll 1979 by W S Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

QC-601. Savannah R 5 **3070 ± 190**

Peat and roots in paleosol, 4m below mean high water.

QC-822. Savannah R 6 **2060 ± 130**

Basal peat, 4.77 to 5.07m below mean high water. Coll 1979 by W Newman, H Craig, S Jencius, J Gordon, and H Greenberg.

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