

Supplementary Materials Table S1. Data used to construct geological cross-sections for each coastal sector as illustrated in Figure 4. Yellow infill = data generated from shell. Orange infill = data generated from plant material. nd = no data provided.

Sector	Reference	Location	Sample ID	Paleo environment	Material sampled	Sample depth (m)	Age in RC yr BP	RC age after OxCal Correction (cal yr BP)	Age reported in cal yr BP	Std Dev
Southern North Carolina	Berelson and Heron (1985) [1]	Back barrier lagoon	C19	Back barrier marsh	Oyster	-4.00	3780	4160		140
		Back barrier lagoon	C37	Back barrier marsh	Shell	-2.60	1520	1417		70
		Back barrier lagoon	C26	Back barrier marsh	Gastropod	-2.10	3080	3233		90
		Back barrier lagoon	C39	Back barrier marsh	Articulated oyster	-4.80	4800	5526		100
	Engelhart and Horton (2012) [2]	Jarrett Bay	SC-VI-53-1	Not specified	Salt peat	-0.73			585	nd
	Index Pts only	Jarrett Bay	SC-VI-53-2	Not specified	Salt peat	-1.91			2197	nd
	Includes Horton et al. (2009) [3] except as below	Croatan National Forest	QC-801	Not specified	Salt peat	-0.77			1056	nd
		Croatan National Forest	QC-802	Not specified	Salt peat	-1.27			1646	nd
		Wilmington	QC-799	Not specified	Salt peat	-0.93			1267	nd
		Wilmington	QC-793A	Not specified	Salt peat	-3.03			3644	nd
		Wilmington	QC-793B	Not specified	Salt peat	-3.43			3647	nd
		Wilmington	QC-794	Not specified	Salt peat	-4.23			3916	nd
		Wilmington	QC-796	Not specified	Salt peat	-5.53			4333	nd
		Wilmington	QC-797	Not specified	Salt peat	-8.03			6539	nd
		Southport	I-1576	Not specified	Salt peat	-1.90			2465	nd

	Horton et al. (2009) [3]	Southport	I-1577	Not specified	Peat	-2.50			3268	nd
	Index points only	Southport	I-1579	Not specified	Peat	-3.70			4096	nd
	Timmons et al. (2010) [4]	Bogue Sound	BS-08-2 Core	Facies D Lagoon	Articulated bivalve	-1.55			930	30
		Bogue Sound	BS-08-4	Facies D Lagoon	Articulated bivalve	-1.89			390	50
		Bogue Sound	BS-08-4	Facies A Lagoon	Oyster	-2.79			2525	30
		Bogue Sound	BS-08-6	Facies D Lagoon	Articulated bivalve	-1.63			1080	55
		Bogue Sound	BS-08-8	Facies D Lagoon	Articulated bivalve	-1.33			1100	45
		Bogue Sound	BS-08-22	Facies D Lagoon	Articulated bivalve	-4.03			4010	65
		Bogue Sound	BS-08-22	Unknown	Wood	-4.70			5300	20
		Bogue Sound	BS-08-22	Facies D Lagoon	Articulated oyster	-5.00			4730	60
		Bogue Sound	BS-08-22	Facies D Lagoon	Bivalve	-6.21			5525	40
	Lazar et al. (2016) [5]	Bogue Sound	BS-08-02	Estuary	Articulated oyster	-3.24			3390	70
		Bogue Banks	SB-08-03	Estuary	Bivalve	-4.59			3920	100
	Rodriguez et al. (2018) [6]	Oslow Beach	F1-4	Base of lagoon	Bivalve	-1.50			935	nd
		Oslow Beach	F1-2	Marsh above lagoon	Plant fragments	-0.80			297	nd
Northern South Carolina	Gayes et al. (1992) [7]	Merrells Inlet	1	Marsh	Peat	-4.21			2009	nd
		Merrells Inlet	2	Marsh	Peat	-5.65			2721	nd
		Merrells Inlet	3	Marsh	Peat	-4.73			3001	nd
		Merrells Inlet	6	Marsh	Peat	-5.26			2335	nd
		Merrells Inlet	7	Marsh	Peat	-3.72			2782	nd
		Merrells Inlet	8	Marsh	Peat	-3.13			3593	nd

	Merrells Inlet	103	Marsh	Peat	-0.45		487	nd
	Merrells Inlet	103	Marsh	Peat	-1.18		4281	nd
	Merrells Inlet	106	Marsh	Peat	-2.64		2649	nd
Gardner and Porter (2001) [8]	North Inlet	10	Back barrier	Oyster	-4.37	2750	2857	50
	North Inlet	13	Back barrier	Oyster	-5.57	2275	2253	50
	North Inlet	20	Back barrier	Oyster	-5.21	3230	3464	50
	North Inlet	21	Back barrier	Shell	-2.85	1670	1556	50
	North Inlet	26	Back barrier	Oyster	-1.32	1460	1398	50
	North Inlet	26	Back barrier	Oyster	-3.53	1915	1848	50
	North Inlet	28	Back barrier	Oyster	-2.72	2160	2157	50
	North Inlet	30	Back barrier	Oyster	-5.47	1330	1236	50
	North Inlet	33	Back barrier	Shell	-6.01	4335	4938	50
	North Inlet	36	Back barrier	Oyster	-1.25	605	597	50
	North Inlet	36	Back barrier	Shell hash	-4.71	3550	3836	50
Engelhart and Horton (2012) [2] Index points only	Murrells Inlet	GX-16569	Not specified	Salt peat	-3.02		4633	nd
	Pee Dee River	QC-602	Not specified	Salt peat	-3.41		4036	nd
	Pee Dee River	QC-603	Not specified	Salt peat	-2.61		2660	nd
	Pee Dee River	QC-813	Not specified	Salt peat	-6.60		6433	nd
	Pee Dee River	QC-814	Not specified	Salt peat	-6.59		6992	nd
	Santee River	QC-595	Not specified	Salt peat	-4.11		4955	nd
	Santee River	QC-596(1)	Not specified	Salt peat	-3.01		3256	nd
	Santee River	QC-596(2)	Not specified	Salt peat	-3.01		3323	nd
	Murrells Inlet	GX-15987	Not specified	Salt peat	-3.05		3598	nd
	Pee Dee River	QC-604	Not specified	Salt peat	-4.81		5343	nd
Long et al. (2020) [9]	Cape Romain	VC23:0.63	Shelf sand	Shell	-12.93		850	65
	Cape Romain	VC23:1.37	Shelf sand	Shell	-13.66		3249	82
	Cape Romain	VC24:0.40	Shelf sand	Shell	-12.41		190	76

		Cape Romain	VC24:0.62	Shelf sand	Shell	-12.63			2796	57
		Cape Romain	VC24:1.07	Shelf sand	Shell	-13.09			3768	90
		Cape Romain	VC24:1.23	Shelf sand	Shell	-13.24			4700	104
		Cape Romain	VC24:1.44	Shelf sand	Shell	-13.45			8460	82
Southern South Carolina	Engelhart and Horton (2012) [2]	Combahee River	QC-589	Not specified	Salt peat	-4.10			6667	nd
	Index points only	Combahee River	QC-593	Not specified	Salt peat	-3.95			6025	nd
		Combahee River	QC-594	Not specified	Salt peat	-3.58			6384	nd
		Combahee River	QC-609	Not specified	Salt peat	-2.20			3052	nd
		Combahee River	QC-610_a	Not specified	Salt peat	-2.68			3580	nd
		Combahee River	QC-828	Not specified	Salt peat	-3.29			5077	nd
		Coosawatchie River	QC-826	Not specified	Salt peat	-1.28			2117	nd
		Coosawatchie River	QC-827	Not specified	Salt peat	-0.72			720	nd
		Savannah River	QC-599	Not specified	Salt peat	-2.61			3278	nd
		Savannah River	QC-600	Not specified	Salt peat	-2.41			2392	nd
		Savannah River	QC-821	Not specified	Salt peat	-3.26			2466	nd
		Savannah River	QC-825	Not specified	Salt peat	-1.96			3316	nd
		Cooper-Wando River	QC-584	Not specified	Salt peat	-2.50			3280	nd
		Cooper-Wando River	QC-586	Not specified	Salt peat	-4.40			5754	nd
		Cooper-Wando River	QC-587	Not specified	Salt peat	-3.45			4906	nd
		Cooper-Wando River	QC-588	Not specified	Salt peat	-2.85			4643	nd
		Cooper-Wando River	QC-611	Not specified	Salt peat	-1.60			2117	nd

		Cooper-Wando River	QC-613	Not specified	Salt peat	-1.85			2376	nd
		Cooper-Wando River	QC-702	Not specified	Salt peat	-2.80			5310	nd
		Cooper-Wando River	QC-703	Not specified	Salt peat	-2.00			3278	nd
		Cooper-Wando River	QC-704	Not specified	Salt peat	-3.95			5423	nd
	Duc (1981) [10]	Kiawah Island marsh	KIV 11	Shell layer	Basal lag	-2.90	4435		5079	50
	Long et al. (2020) [9]	Folly-Kiawah	VC14:1.92	Shelf sand	Shell	-15.58			1604	84
		Folly-Kiawah	VC15:0.67	Shelf sand	Shell	-9.54			4383	93
		Folly-Kiawah	VC15:3.03	Shelf sand	Shell	-11.92			4888	71
		Folly-Kiawah	VC18:0.66	Shelf sand	Shell	-13.70			3627	72
		Folly-Kiawah	VC19:2.10	Shelf sand	Shell	-15.91			7883	66
		Folly-Kiawah	VC21:0.97	Shelf sand	Shell	-13.71			7634	64
		Folly-Kiawah	VC21:1.65	Shelf sand	Shell	-14.39			3961	94
		Folly-Kiawah	VC21:3.14	Shelf sand	Shell	-15.88			8328	66
	Long et al. (2021) [11]	Folly-Kiawah	SC04:0.56	Shelf sand	Shell	-12.85			640	47
Georgia-Florida	Long et al. (2021) [11]	Cumberland Island	GA-03:1.93	Shelf sand	Shell	-12.33			2570	107
		St. Simons Island	GA-05:2.25	Shelf sand	Shell	-13.15			7630	56
		St. Simons Island	GA-07:3.12	Shelf sand	Shell	-14.42			360	66
		St. Simons Island	GA-07:3.14	Shelf sand	Shell	-14.44			320	62
		St. Simons Island	GA-07:3.17	Shelf sand	Shell	-14.47			5520	60
	Vaughn et al. (2021) [12]	St. Augustine Beach	Bottom	Mangrove	Wetland sediment	-1.80			2860	nd
		St. Augustine Beach	Bottom	Salt marsh	Wetland sediment	-2.66			4720	nd
		St. Augustine Beach	Bottom	Transitional	Wetland sediment	-2.84			4740	nd

St. Augustine Beach	50	Mangrove	Wetland sediment	-0.50	310	nd
St. Augustine Beach	50	Salt marsh	Wetland sediment	-0.50	860	nd
St. Augustine Beach	50	Transitional	Wetland sediment	-0.50	530	nd
St. Augustine Beach	110	Transitional	Wetland sediment	-1.10	2530	nd
St. Augustine Beach	110	Salt marsh	Wetland sediment	-0.70	1220	nd
St. Augustine Beach	110	Salt marsh	Wetland sediment	-0.10	240	nd
St. Augustine Beach	110	Transitional	Wetland sediment	-0.40	440	nd
St. Augustine Beach	110	Mangrove	Wetland sediment	-1.60	2500	nd
St. Augustine Beach	110	Mangrove	Wetland sediment	-0.40	250	nd

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