Supporting Information 1: ^{14}C dataset from the southern Yangtze Delta

Table S1: ^{14}C dates from characteristic sediment sequences on the southern Yangtze Delta. Abbreviated name of each sediment sequence refers to the original literature.

Sediment sequence #	Total Holocene depth(cm)	Sample depth (cm)	Standardized sample depth(%)*	Laboratory code**	$\delta^{13}C$ (‰)***	Age (^{14}C bp)	Calibrated date (cal BP, 2σ)****	Median calibrated date (cal BP)	Dated material *****	References
CD	236	45	19.1 (NM)	UBA20625	-36.1	151±65	290-?	153	Macrocharcoal	(Long et al., 2014)
	236	99	41.9 (NM)	BETA326753	-23.1	3150±30	3449-3260	3377	Pollen residue	(Long et al., 2014)
(PDS1)	236	136	57.6 (NM)	UBA20880	-32.0	10269±37	12163-11825	12032	Macrocharcoal	(Long et al., 2014)
	236	151	64.0 (NM)	UBA20879	-27.6	2996±23	3319-3077	3180	Pollen residue	(Long et al., 2014)
	236	161	68.2 (NM)	UBA20626	-17.3	2581±59	2841-2465	2688	Macrocharcoal	(Long et al., 2014)
	236	173	73.3 (NM)	UBA20627	-16.3	2513±28	2740-2490	2588	Macrocharcoal	(Long et al., 2014)
	236	183	77.5 (NM)	BETA326754	-22.7	2870±30	3076-2880	2991	Pollen residue	(Long et al., 2014)
D2	280	110	39.3 (NA)	NA	NA	2370±80	2719-2180	2443	Organic-rich mud	(Stanley and Chen, 2000)
	280	170	60.7 (NA)	NA	NA	2020±70	2153-1821	1982	Organic-rich mud	(Stanley and Chen, 2000)
	280	220	78.6 (NA)	NA	NA	1090±50	1173-925	1005	Peat	(Stanley and Chen, 2000)
	280	230	82.1 (NA)	NA	NA	1790±70	1870-1560	1715	Peat	(Stanley and Chen, 2000)
	280	250	89.3 (NA)	NA	NA	2350±70	2704-2159	2408	Organic-rich mud	(Stanley and Chen, 2000)
DGY	285	120	42.1 (NM)	NA	NA	2370±80	2719-2180	2443	NA	(Zhao et al., 2007)
	285	176	61.8 (NM)	NA	NA	2020±70	2153-1821	1982	NA	(Zhao et al., 2007)
	285	230	80.7 (NM)	NA	NA	1090±70	1221-804	1014	NA	(Zhao et al., 2007)
	285	240	84.2 (NM)	NA	NA	1790±70	1870-1560	1715	NA	(Zhao et al., 2007)
	285	250	87.7 (M)	NA	NA	2350±70	2704-2159	2408	NA	(Zhao et al., 2007)
E2	230	20	8.7 (NM)	NA	NA	2575±110	2871-2354	2629	Mud	(Wang et al., 2001)
	230	32	13.9 (NM)	AA9242	NA	4765±70	5609-5320	5498	Mud	(Wang et al., 2001)
	230	45	19.6 (NM)	AA9243	NA	5495±75	6450-6025	6296	Mud	(Wang et al., 2001)
	230	110	47.8 (NM)	AA9244	NA	6585±80	7596-7325	7487	Mud	(Wang et al., 2001)
	230	119	51.7 (NM)	NA	NA	5970±170	7246-6446	6825	Mud	(Wang et al., 2001)
	230	226	98.3 (NM)	AA9341	NA	6575±75	7587-7325	7481	Mud	(Wang et al., 2001)

Table S1 (continued)

Sediment sequence #	Total Holocene depth(cm)	Sample depth (cm)	Standardized sample depth (%)*	Laboratory code**	$\delta^{13}C$ (‰)***	Age (^{14}C bp)	Calibrated date (cal BP, 2σ)****	Median calibrated date (cal BP)	Dated material *****	References
GFL Core	1550	175	11.3 (NM)	XA4799	-23.4	14051±69	17374-16799	17078	Organic-rich mud	(Wang et al., 2012)
	1550	832	53.7 (M)	XA4798	-20.9	17953±58	21945-21536	21753	Organic-rich mud	(Wang et al., 2012)
	1550	975	62.9 (M)	XA4797	-23.2	11567±55	13533-13278	13398	Organic-rich mud	(Wang et al., 2012)
(PDS2)	1550	1045	67.4 (M)	XA4796	-27.5	12051±43	14044-13763	13893	Organic-rich mud	(Wang et al., 2012)
	1550	1140	73.5 (M)	XA4795	-23.6	13338±44	16230-15856	16048	Organic-rich mud	(Wang et al., 2012)
	1550	1188	76.6 (M)	XA4794	-25.8	12504±42	15067-14366	14756	Plant fragments	(Wang et al., 2012)
	1550	1205	77.7 (NM)	XA4793	-25.2	12721±45	15316-14969	15160	Organic-rich mud	(Wang et al., 2012)
	1550	1245	80.3 (NM)	XA4815	-4.0	8136±34	9241-9000	9069	Gastropod	(Wang et al., 2012)
	1550	1275	82.3 (NM)	XA4792	-47.2	8101±42	9243-8795	9038	Organic-rich mud	(Wang et al., 2012)
	1550	1315	84.8 (NM)	XA4809	-20.1	9356±39	10694-10440	10577	Plant fragments	(Wang et al., 2012)
	1550	1362	87.9 (NM)	XA4790	-24.8	8143±53	9261-8997	9089	Plant fragments	(Wang et al., 2012)
	1550	1385	89.4 (NM)	XA4789	-36.0	8073±41	9125-8779	9005	Plant fragments	(Wang et al., 2012)
	1550	1418	91.5 (NM)	XA4808	-24.6	9010±36	10244-9967	10203	Plant fragments	(Wang et al., 2012)
	1550	1471	94.9 (NM)	XA4787	-41.7	8307±50	9447-9137	9327	Plant fragments	(Wang et al., 2012)
	1550	1523	98.3 (NM)	XA4786	-26.2	7836±41	8770-8539	8616	Peat	(Wang et al., 2012)
	1550	1535	99.0 (NM)	XA4785	-30.1	7860±39	8930-8547	8643	Peat	(Wang et al., 2012)
JLQ	1450	1150	79.3 (NA)	NA	NA	7400±80	8373-8039	8230	Shell	(Stanley and Chen, 2000)
MJB	800	185.5	23.2 (M)	UBA12489	-22.8	12190±49	14252-13924	14080	Pollen residue	(Long et al., 2014)
	800	201	25.1 (M)	OZL356	-20.2	17560±110	21577-20881	21224	Pollen residue	(Long et al., 2014)
(PDS3)	800	251	31.4 (M)	OZL355	-22.7	14190±90	17549-16994	17275	Pollen residue	(Long et al., 2014)
	800	265.5	33.2 (M)	UBA12490	-23.7	12520±42	15092-14425	14804	Pollen residue	(Long et al., 2014)
	800	301	37.6 (NM)	UBA12491	-24.9	10726±41	12733-12596	12680	Pollen residue	(Long et al., 2014)
	800	301	37.6 (NM)	OZL354	-23.0	13520±80	16571-16026	16283	Pollen residue	(Long et al., 2014)
	800	321	40.1 (NM)	OZL353	-24.9	7390±60	8347-8045	8226	Pollen residue	(Long et al., 2014)
	800	365.5	45.7 (NM)	UBA12492	-28.6	7198±33	8153-7949	8001	Pollen residue	(Long et al., 2014)
	800	380.5	47.6 (NM)	OZL352	-26.5	7080±60	8015-7787	7902	Pollen residue	(Long et al., 2014)
(PDS4)	800	430.5	53.8 (M)	UBA12494	-23.3	11089±39	13068-12823	12963	Pollen residue	(Long et al., 2014)

Table S1 (continued)

Sediment sequence #	Total Holocene depth(cm)	Sample depth (cm)	Standardized sample depth (%)*	Laboratory code**	$\delta^{13}C$ (‰)***	Age (^{14}C bp)	Calibrated date (cal BP, 2σ)****	Median calibrated date (cal BP)	Dated material *****	References
Pingwang	380	186	48.9 (NM)	BETA266433	NA	4430±40	5280-4871	5026	Pollen residue	(Zong et al., 2011)
	380	226	59.5 (NM)	BETA243208	NA	4720±40	5584-5323	5460	Pollen residue	(Zong et al., 2011)
	380	321	84.5 (M)	BETA253340	NA	6800±50	7725-7572	7640	Pollen residue	(Zong et al., 2011)
	380	376	98.9 (M)	BETA228442	NA	6290±50	7321-7025	7218	Peat	(Zong et al., 2011)
Siqian	210	76	36.2 (NM)	BETA245331	NA	5410±40	6297-6025	6229	Pollen residue	(Zong et al., 2011)
	210	141	67.1 (NM)	BETA253341	NA	7310±50	8285-8005	8109	Pollen residue	(Zong et al., 2011)
SL	760	590	77.6 (NA)	NA	NA	7370±140	8425-7937	8189	Oyster shell	(Stanley and Chen, 2000)
T1	327	200	61.2 (NA)	NA	NA	1369±180	1693-929	1284	Peat	(Stanley and Chen, 2000)
	327	320	97.9 (NA)	NA	NA	7064±300	8520-7419	7916	Organic-rich mud	(Stanley and Chen, 2000)
T4	1100	310	28.2 (NA)	NA	NA	2540±200	3144-2135	2608	NA	(Stanley and Chen, 2000)
	1100	510	46.4 (NA)	NA	NA	3650±190	4519-3483	3998	NA	(Stanley and Chen, 2000)
	1100	1100	100.0 (NA)	NA	NA	8225±300	9914-8416	9162	NA	(Stanley and Chen, 2000)
W1	275	20	7.3 (NM)	NA	NA	5490±140	6616-5941	6280	Pollen	(Wang et al., 2001)
	275	30	10.9 (NM)	NA	NA	5020±75	5910-5611	5768	Pollen	(Wang et al., 2001)
	275	65	23.6 (M)	GT1	NA	6145±370	7756-6220	7008	Mud	(Wang et al., 2001)
	275	165	60.0 (NM)	GT2	NA	8575±410	10700-8580	9640	Mud	(Wang et al., 2001)
(PDS5)	275	269	97.8 (NM)	NA	NA	11640±290	14123-12832	13511	Pollen	(Wang et al., 2001)
	275	275	100.0 (NM)	NA	NA	11280±90	13328-12974	13146	Mud	(Wang et al., 2001)
WC1	275	33	12.0 (NA)	NA	NA	5020±75	5910-5611	5768	Organic-rich mud	(Stanley and Chen, 2000)
(PDS6)	275	275	100.0 (NA)	NA	NA	11280±90	13328-12974	13146	Organic-rich mud	(Stanley and Chen, 2000)
WJB	800	182	22.8 (NM)	OZL351	-21.1	9590±60	11164-10737	10939	Pollen residue	(Qin et al., 2011)
	800	351	43.9 (NM)	OZL349	-26.0	6410±60	7435-7181	7343	Charcoal	(Qin et al., 2011)
	800	351	43.9 (NM)	OZL350	-25.9	6250±70	7317-6970	7169	Pollen residue	(Qin et al., 2011)
	800	375	46.9 (NM)	OZL374	-25.0	6600±50	7570-7430	7496	Peat	(Qin et al., 2011)
	800	375	46.9 (NM)	OZL375	-25.0	6630±60	7591-7429	7516	Peat	(Qin et al., 2011)
	800	404	50.5 (M)	OZL376	-21.4	9010±70	10287-9906	10173	Clay	(Qin et al., 2011)
	800	601	75.1 (NM)	OZL377	-23.5	7350±60	8319-8025	8163	Clay	(Qin et al., 2011)

Table S1 (continued)

Sediment sequence #	Total Holocene depth(cm)	Sample depth (cm)	Standardized sample depth (%)*	Laboratory code**	$\delta^{13}C$ (‰)***	Age (^{14}C bp)	Calibrated date (cal BP, 2σ)****	Median calibrated date (cal BP)	Dated material *****	References
Z4	1115	310	27.8 (NA)	NA	NA	2450±200	2965-1999	2519	Organic-rich mud	(Stanley and Chen, 2000)
	1115	500	44.8 (NA)	NA	NA	3650±190	4519-3483	3998	Organic-rich mud	(Stanley and Chen, 2000)
	1115	1110	99.6 (NA)	NA	NA	8225±300	9914-8416	9162	Organic-rich mud	(Stanley and Chen, 2000)
ZX-1	1500	110	7.3 (NM)	NA	NA	2850±60	3159-2802	2970	Organic-rich mud	(Stanley and Chen, 2000)
	1500	470	31.3 (M)	NA	NA	10900±60	12925-12692	12770	Organic-rich mud	(Stanley and Chen, 2000)
(PDS7)	1500	600	40.0 (M)	NA	NA	13300±60	16205-15779	15995	Organic-rich mud	(Stanley and Chen, 2000)
	1500	790	52.7 (M)	NA	NA	11150±45	13111-12879	13031	Organic-rich mud	(Stanley and Chen, 2000)
	1500	890	59.3 (NM)	NA	NA	6850±80	7916-7571	7693	Organic-rich mud	(Stanley and Chen, 2000)
(PDS8)	1500	900	60.0 (NM)	NA	NA	11460±60	13438-13162	13307	Organic-rich mud	(Stanley and Chen, 2000)
	1500	1060	70.7 (M)	NA	NA	10200±50	12106-11710	11899	Organic-rich mud	(Stanley and Chen, 2000)
	1500	1260	84.0 (M)	NA	NA	7750±50	8605-8420	8523	Peat	(Stanley and Chen, 2000)
	1500	1410	94.0 (M)	NA	NA	7820±35	8704-8521	8596	Peat	(Stanley and Chen, 2000)
	1500	1420	94.7 (M)	NA	NA	7900±35	8973-8596	8704	Organic-rich mud	(Stanley and Chen, 2000)

#(PDS)=a set of pre-Holocene dates. *M=Marine-influenced section; NM=non-marine-influenced section; NA=not available. **NA=Not available. ***NA=Not available.
****Calibrated dates are determined from the calibration curve IntCal13 (Reimer et al., 2009) using the program OxCal v4.2 (Ramsey, 1995). Cal BP refers to years before 1950 AD. The calibrated results on this table might be different from that from the original references. *****NA=Not available.

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