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SI Table S1 The values of $^{210}Pb_{ex}$, Ln($^{210}Pb_{ex}$), ^{228}Raex in the sediment cores from the Shijiao transect (including Stations of SJ1 and SJ2)

Depth	^{210}Pbex	Ln(^{210}Pbex)	^{228}Raex	Depth	^{210}Pbex	Ln(^{210}Pbex)	^{228}Raex
SJ-1				SJ-2			
0-3cm	72.3±11.0	4.28±0.15	3.19±0.16	0-3cm	77.1±11.4	4.35±0.15	1.20±0.08
3-6cm	75.8±11.6	4.33±0.15	1.80±0.09	3-6cm	50.9±7.9	3.93±0.16	1.03±0.06
6-9cm	74.9±12.1	4.32±0.16	1.44±0.07	6-9cm	77.3±12.6	4.35±0.16	2.43±0.17
9-12cm	77.1±12.2	4.34±0.16	0.86±0.05	9-12cm	66.1±10.0	4.19±0.15	1.86±0.12
12-15cm	55.3±9.1	4.01±0.16	3.33±0.17	12-15cm	71.2±11.8	4.27±0.17	2.34±0.16
15-18cm	39.7±5.3	3.68±0.13	2.47±0.08	15-20cm	58.9±8.9	4.08±0.15	1.66±0.10
18-21cm	42.2±6.6	3.74±0.16	1.23±0.06	20-25cm	26.8±4.3	3.29±0.16	3.05±0.21
21-24cm	23.5±3.7	3.16±0.16	2.07±0.11	25-30cm	17.1±4.1	2.84±0.24	1.04±0.07
24-27cm	17.1±2.7	2.84±0.16	1.21±0.06	30-35cm	13.4±2.2	2.59±0.16	2.45±0.16
27-30cm	17.8±3.0	2.88±0.17	0.75±0.04	35-40cm	11.5±2.0	2.44±0.18	1.75±0.11
30-35cm	11.5±2.0	2.44±0.17	2.26±0.12	40-45cm	9.8±1.6	2.28±0.17	1.76±0.12
35-40cm	11.8±2.0	2.47±0.17	0.41±0.02	45-49cm	7.4±1.3	2.01±0.18	2.00±0.13
40-45cm	12.9±2.3	2.56±0.18	2.75±0.14	49-52cm	9.0±1.5	2.20±0.17	2.29±0.15
45-50cm	13.0±2.4	2.57±0.18	0.37±0.02				
50-55cm	5.7±0.7	1.74±0.13	0.90±0.04				
55-60cm	11.8±2.1	2.47±0.18	0.32±0.02				
60-65cm	9.2±1.5	2.22±0.16	-0.92±-0.05				
65-70cm	10.3±1.8	2.33±0.18	1.56±0.06				
70-75cm	12.5±1.9	2.53±0.15	1.16±0.06				
75-82cm	11.0±1.8	2.40±0.17	0.12±0.01				

SI Table S2 The values of $^{210}Pb_{ex}$, Ln($^{210}Pb_{ex}$), ^{228}Raex in the sediment cores from the Rongshutou transect (including Stations of RST-1 and RST-2)

Depth/cm	^{210}Pbex	Ln(^{210}Pbex)	^{228}Raex	Depth/cm	^{210}Pbex	Ln(^{210}Pbex)	^{228}Raex
RST-1				RST-2			
0-5cm	48.4±7.2	3.88±0.15	-0.77±-0.05	0-3cm	55.6±9.1	4.02±0.16	0.45±0.03
5-10cm	55.6±8.3	4.02±0.15	0.09±0.01	3-6cm	49.1±7.8	3.89±0.16	-0.13±-0.01
10-15cm	58.9±8.7	4.08±0.15	-0.11±-0.01	6-9cm	46.1±7.2	3.83±0.16	0.54±0.04
15-20cm	42.4±6.4	3.75±0.15	-1.33±-0.09	9-12cm	45.8±7.2	3.82±0.16	0.99±0.07
20-25cm	35.3±5.8	3.56±0.16	-0.37±-0.02	12-15cm	48.5±7.6	3.88±0.16	1.77±0.12
25-30cm	27.5±4.6	3.31±0.17	-0.05±0.00	15-20cm	29.4±4.7	3.38±0.16	0.17±0.01
30-35cm	60.6±9.3	4.10±0.15	0.49±0.03	20-25cm	28.1±4.6	3.33±0.16	1.62±0.11
35-42.5cm	46.8±7.2	3.85±0.15	-1.10±-0.07	25-30cm	26.1±4.3	3.26±0.17	0.78±0.05
				35-40cm	23.5±4.2	3.16±0.18	0.78±0.05
				40-45cm	32.6±5.5	3.49±0.17	0.88±0.06
				45-50cm	21.7±3.7	3.08±0.17	1.38±0.09
				50-55cm	22.6±3.8	3.12±0.17	-0.19±-0.01
				55-59cm	24.7±3.9	3.20±0.16	0.69±0.04
				59-62cm	21.6±3.5	3.07±0.16	0.81±0.05

SI Table S3. The specific activities of ^{40}K, ^{226}Ra, ^{228}Ra, ^{228}Th, ^{238}U, ^{137}Cs, and Ratios of $^{228}Th/^{228}Ra$ and $^{226}Ra/^{238}U$ in the sediment cores from the Shijiao transect (including Stations of SJ-1, and SJ-2)

Soil layer	Depth/cm	^{40}K	^{210}Pb	^{226}Ra	^{228}Ra	^{228}Th	^{238}U	$^{228}Th/^{228}Ra$	$^{226}Ra/^{238}U$	^{137}Cs	A.D.
SJ-1											
0-3cm	1.5	177±8	91.7±13.8	19.5±0.5	26.6±0.9	23.5±0.8	59.2±3.2	0.88±0.04	0.33±0.02	0.56±0.16	2015.9
3-6cm	4.5	171±7	96.8±14.7	21±0.5	26.4±0.9	24.6±0.9	62.7±3.6	0.93±0.05	0.33±0.02	0.67±0.11	2008.8
6-9cm (shell 4.7g)	7.5	171±7	94.9±15.3	20±0.5	25.8±0.8	24.3±0.8	63.0±3.2	0.94±0.05	0.32±0.02	0.61±0.04	2001.7
9-12cm	10.5	157±7	96.4±15.1	19.4±0.5	24.2±0.9	23.3±0.9	62.6±3.5	0.96±0.05	0.31±0.02	0.53±0.06	1994.6
12-15cm	13.5	152±7	76.7±12.6	21.4±0.6	27.3±1.0	24±0.9	61.0±3.2	0.88±0.05	0.35±0.02	0.54±0.05	1987.5
15-18cm	16.5	135±6	58.5±7.7	18.8±0.3	24.3±0.6	21.9±0.5	46.0±2.8	0.90±0.03	0.41±0.03	0.45±0.05	1980.4
18-21cm	19.5	133±6	62.5±9.6	20.3±0.5	25.7±0.8	24.5±0.9	61.7±3.2	0.95±0.05	0.33±0.02	0.60±0.05	1973.3
21-24cm	22.5	131±6	42±6.5	18.5±0.5	25.8±0.9	23.7±0.8	55.8±3.0	0.92±0.05	0.33±0.02	0.52±0.07	1966.2
24-27cm (shell 5.85g)	25.5	123±6	33.6±5.2	16.5±0.5	22.9±0.8	21.7±0.8	54.5±3.1	0.95±0.05	0.3±0.02	0.35±0.16	1959.1
27-30cm	28.5	119±5	33.4±5.5	15.6±0.4	22.0±0.7	21.3±0.8	49.9±3.2	0.97±0.05	0.31±0.02	0.29±0.09	1952.0
30-35cm	32.5	123±6	27.3±4.7	15.8±0.4	23.4±0.9	21.1±0.8	47.8±2.5	0.90±0.05	0.33±0.02	<0.45	1942.5
35-40cm	37.5	120±5	28.4±4.8	16.6±0.5	21.8±0.8	21.4±0.8	47.1±2.8	0.98±0.05	0.35±0.02	<0.37	1930.6
40-45cm	42.5	131±6	29.9±5.4	17±0.5	26.0±1.0	23.2±0.8	51.4±2.9	0.89±0.05	0.33±0.02	<0.47	1918.8
45-50cm	47.5	133±6	31.0±5.6	18±0.5	26±0.9	25.7±0.9	49.4±3.0	0.99±0.05	0.37±0.02	<0.24	1907.0
50-55cm	52.5	143±5	23.4±3.0	17.7±0.4	27.3±0.8	26.4±0.9	47.2±2.4	0.97±0.04	0.37±0.02	<0.40	1895.1
55-60cm	57.5	126±6	28.6±5.1	16.7±0.5	25.9±1.0	25.6±0.9	42.7±2.6	0.99±0.05	0.39±0.03	<0.48	1883.3
60-65cm	62.5	127±6	27.0±4.4	17.8±0.5	25.0±0.8	25.9±0.9	43.0±2.5	1.04±0.05	0.41±0.03	<0.35	1871.4
65-70cm	67.5	119±5	26.7±4.7	16.4±0.3	24.9±0.6	23.4±0.6	32.3±2.4	0.94±0.03	0.51±0.04	<0.46	1859.6
70-75cm	72.5	147±6	31.0±4.7	18.4±0.5	29.8±1.1	28.6±1.0	57.2±3.6	0.96±0.05	0.32±0.02	<0.19	1847.8
75-82cm	78.5	138±6	29.2±4.8	18.2±0.5	27.4±0.9	27.3±1.0	46.9±2.7	1.00±0.05	0.39±0.02	<0.39	1833.6
SJ-2											
0-3cm	1.5	176±8	98.6±14.3	21.5±0.7	26.8±1.1	25.6±1.3	64.0±4.8	0.96±0.06	0.34±0.03	0.51±0.06	2016.9
3-6cm	4.5	136±6	68.5±10.6	17.7±0.5	22.5±0.9	21.5±0.8	53.1±3.2	0.95±0.05	0.33±0.02	<0.30	2011.7
6-9cm	7.5	146±7	95.5±15.4	18.3±0.7	25.8±1.2	23.4±1.2	61.3±5.0	0.91±0.06	0.3±0.03	0.35±0.07	2006.6
9-12cm	10.5	151±7	86.2±12.8	20.1±0.7	26.8±1.1	24.9±1.3	61.2±4.9	0.93±0.06	0.33±0.03	0.55±0.22	2001.5
12-15cm	13.5	156±7	89.2±14.6	18.0±0.7	26.9±1.2	24.5±1.3	68.9±6.0	0.91±0.06	0.26±0.02	0.43±0.2	1996.3
15-20cm	17.5	152±7	76.4±11.5	17.5±0.6	26.4±1.0	24.7±1.3	57.4±4.6	0.94±0.06	0.3±0.03	0.51±0.07	1989.5
20-25cm	22.5	111±5	45.4±7.2	18.6±0.6	25.3±1.1	22.3±1.1	52.6±4.2	0.88±0.06	0.35±0.03	<0.46	1980.9
25-30cm (shell 21.93g)	27.5	109±5	33.4±8.0	16.3±0.6	23.4±0.9	22.4±1.1	53.8±4.4	0.96±0.06	0.30±0.03	<0.27	1972.4
30-35cm	32.5	108±5	30.1±4.9	16.8±0.6	25.3±1.0	22.9±1.1	60.5±4.9	0.9±0.06	0.28±0.02	<0.37	1963.8
35-40cm	37.5	105±5	27.4±4.8	15.9±0.6	23.1±0.9	21.4±1.1	50.9±4.2	0.92±0.06	0.31±0.03	<0.47	1955.3
40-45cm	42.5	135±6	26.1±4.4	16.4±0.6	25.3±1.1	23.5±1.2	48.4±3.9	0.93±0.06	0.34±0.03	<0.18	1946.7
45-49cm	47	132±6	23.5±4.2	16.1±0.6	26.1±1.1	24.1±1.2	46.2±3.8	0.92±0.06	0.35±0.03	<0.47	1939.0
49-52cm	50.5	116±5	24.4±4.0	15.4±0.5	23.4±1.0	21.1±1.1	51.8±4.4	0.90±0.06	0.30±0.03	<0.38	1933.0

SI Table S4. The specific activities of ^{40}K, ^{226}Ra, ^{228}Ra, ^{228}Th, ^{238}U, ^{137}Cs, and Ratios of $^{228}Th/^{228}Ra$ and $^{226}Ra/^{238}U$ in the sediment cores from the Rongshutou transect (including Stations of RST-1 and RST-2)

Soil layer	Depth/cm	^{40}K	^{210}Pb	^{226}Ra	^{228}Ra	^{228}Th	^{238}U	$^{228}Th/^{228}Ra$	$^{226}Ra/^{238}U$	^{137}Cs	A.D.
RST-1											
0-5cm	2.5	59.6±3.0	69.2±10.1	20.8±0.7	23.4±1.0	24.1±1.2	46.8±3.7	1.03±0.07	0.45±0.04	<0.35	2015.5
5-10cm	7.5	68.6±3.4	80.3±11.7	24.7±0.8	27.3±1.2	27.2±1.4	49.6±4.1	1.00±0.07	0.50±0.04	<0.37	2007.5
10-15cm	12.5	71.3±3.5	81.5±11.8	22.6±0.8	26.9±1.2	27±1.3	52.2±4.2	1.00±0.07	0.43±0.04	<0.38	1999.5
15-20cm	17.5	87.0±4.2	64.3±9.6	21.9±0.7	26.8±1.1	28.2±1.4	65.9±5.3	1.05±0.07	0.33±0.03	<0.26	1991.6
20-25cm	22.5	114±5.4	55.2±8.9	19.9±0.7	28.3±1.2	28.7±1.4	83.7±6.4	1.01±0.07	0.24±0.02	<0.43	1983.6
25-30cm	27.5	90.0±4.3	46.8±7.7	19.3±0.7	27.6±1.2	27.7±1.4	79.1±6.0	1.00±0.07	0.24±0.02	<0.38	1975.6
30-35cm	32.5	89.1±4.5	82.9±12.5	22.3±0.8	31.0±1.4	30.5±1.5	69.3±5.7	0.98±0.07	0.32±0.03	<0.32	1967.7
35-42.5cm	38.75	79.4±3.9	70.6±10.7	23.9±0.8	31.2±1.3	32.3±1.6	68.7±5.5	1.04±0.07	0.35±0.03	<0.39	1957.7
RST-2											
0-3cm	1.5	84.0±4.5	87.0±13.8	31.4±1.1	26.2±1.2	25.8±1.3	58.7±4.7	0.98±0.07	0.53±0.05	<0.69	2018.0
3-6cm	4.5	82.8±3.9	76.7±11.9	27.5±0.9	27.4±1.2	27.5±1.4	50.8±4.0	1.00±0.07	0.54±0.05	<0.45	2015.2
6-9cm	7.5	84.6±3.8	72.7±11.1	26.6±0.8	26.2±1.1	25.7±1.3	50.6±3.9	0.98±0.06	0.53±0.04	<0.35	2012.3
9-12cm	10.5	92.0±4.3	71.8±11.1	25.9±0.9	27.4±1.2	26.4±1.3	45.7±3.7	0.96±0.06	0.57±0.05	<0.43	2009.5
12-15cm	13.5	94.8±4.4	72.7±11.2	24.2±0.8	27.9±1.2	26.1±1.3	48.9±3.9	0.94±0.06	0.49±0.04	<0.44	2006.6
15-20cm	17.5	131±6	51.0±8.1	21.6±0.7	26.0±1.1	25.8±1.3	70.4±5.2	0.99±0.07	0.31±0.02	<0.40	2002.8
20-25cm	22.5	130±6	47.3±7.7	19.2±0.7	26.2±1.1	24.5±1.2	74.9±5.5	0.94±0.06	0.26±0.02	0.22±0.05	1998.1
25-30cm	27.5	131±6	45.5±7.4	19.3±0.7	26.9±1.2	26.1±1.3	76.7±5.6	0.97±0.06	0.25±0.02	<0.43	1993.3
30-35cm	32.5	146±7	41.7±7.4	18.2±0.7	28.9±1.3	28.1±1.4	79.9±5.9	0.97±0.07	0.23±0.02	<0.54	1988.6
35-40cm	37.5	150±7	54.3±9.1	21.6±0.8	34.0±1.5	33.1±1.6	107.1±7.8	0.97±0.06	0.20±0.02	<0.52	1983.8
40-45cm	42.5	94.4±4.4	42.8±7.3	21.1±0.7	26.3±1.1	24.9±1.3	71.1±5.4	0.95±0.06	0.30±0.02	<0.43	1979.1

45-50cm	47.5	80.2±3.7	41.7±7.0	19.0±0.6	22.2±1.0	22.4±1.1	61.1±4.6	1.01±0.07	0.31±0.03	<0.35	1974.4
50-54cm	52.0	74.2±3.2	45.2±7.1	20.5±0.6	22.8±1.0	22.1±1.1	56.6±4.2	0.97±0.06	0.36±0.03	<0.24	1970.1
54-57cm	56.0	87.9±3.8	38.8±6.3	17.2±0.5	21.7±0.9	20.9±1.0	65.2±4.7	0.96±0.06	0.26±0.02	<0.27	1966.3

SI Table S5. The recent accretion rate (mm/a) in soil cores in the Beilun Estuary mangrove forest region.

Stations	**Vegetation**	Fitting function	Accretion rate (mm/a)	Station of rising and falling tide
SJ-1	*Aegiceras corniculatum, andelia candel*	y = -0.0803x + 5.065, R^2 =0.9598, n=9	4.223	High-tide station
SJ-2		y = -0.0593x + 4.8028, R^2 =0.9339, n=11	5.843	Medium-tide station
RST-1	*Avicennia marina*	y = -0.0495x + 4.6643, R2=0.9879.n=4	6.279	High-medium-tide station
RST-2		y = -0.0295x + 4.0715, R^2 =0.8992, n=9	10.537	Low-tide station

SI Table S6. The accretion rate (mm/a) in mangrove forest regions of Guangxi Zhuang Autonomous Region

Mangrove Area	Core	Time-Sampling	Vegetation	Tidal position	Method	Accretion rate (corrected rate)	MeanAccretion rate* (Range)	References
Rongshutou, Beilun Estuary Fangcheng--gang	RST-1	June 8, 2019	*Avicennia marina*	High-tidal	210Pb-CIC	6.279	6.279	This study
	RST-2	June 8, 2019		Low-tidal	210Pb-CIC	10.537	10.537	This study
Pear Bay, Fangcheng--gang	SJ-1	June 8, 2019	*Aegiceras corniculatum, andelia candel*	High-tidal	210Pb-CIC	4.223	4.223	This study
	SJ-2	June 8, 2019		Low-tidal	210Pb-CIC	5.843	5.843	This study
	F11 F11-1)	2007	*Avicennia marina*	Low-tidal	^{210}Pb-CIC	u/n	u/n	Li, 2010
	F14(F11-1)	2007	*Avicennia marina*	Low-tidal	^{210}Pb-CIC	6.7	6.7	Li, 2010
	ZZW-1	Dec, 2018	*u/n*	Inside mangrove	^{210}Pb-CIC ST-Sa ^{210}Pb-CFS SDM	2.6 1.1 3.2 2.9 (1906~1934); 1.9 (1934~1965); 2.9 (1965~1986); 1.9 (1986~2018)	2.2 (1.1-3.2)	Xu,2020 Xu,2020 Chu, 2021 Chu, 2021
	ZZW-2	Dec, 2018	*u/n*	Mangrove Transition Zone	^{210}Pb-CIC ST-Sa SDM	u/n 2.2 4.3 (1906~1934); 2.6 (1934~1965); 1.9 (1965~1986); 1.8 (1986~2008); 4.0 (2008~2018)	2.0 (1.8-4.3)	Xu,2020 Xu,2020 Chu, 2021
	ZZW-3	Dec, 2018	*u/n*	Front edge of mangrove	^{210}Pb-CIC ST-Sa ^{210}Pb-CFS SDM	2.6 u/n 1.9 2.1 (1906~1934); 1.5 (1934~1965); 2.9 (1965~1986); 2.7 (1986~2008); 6.0 (2008~2018)	3.5 (1.5-6.0)	Xu,2020 Xu,2020 Chu, 2021 Chu, 2021
Yuzhouping, Dong Bay, Fangcheng--gang	YZP-1	Dec, 2018	*u/n* *u/n*	Inside mangrove	^{210}Pb-CIC ST-Sa ^{210}Pb (CF-CS) SDM	4.0 3.6 3.6 3.6 (1906~1934); 3.3 (1934~1965); 5.7 (1965~1986); 1.8 (1986~2008); 4.0 (2008~2018)	3.8 (1.8-5.7)	Xu,2020 Xu,2020 Chu, 2021 Chu, 2021
	YZP-2	Dec, 2018	*u/n* *u/n*	Front edge of mangrove	^{210}Pb-CIC ST-Sa	3.6 2.2	3.9 (2.2-8.0)	Xu,2020 Xu,2020

					^{210}Pb (CF-CS) SDM	5.7 2.9 (1906~1934); 2.6 (1934~1965); 4.8 (1965~1986); 2.4 (1986~2003); 8.0 (2003~2008) 4.0 (2008~2018)		Chu, 2021 Chu, 2021
Maoweihai-Qinjiang Estuary	HXL	May, 2011	*Acanthus ilicifolius L.*	u/n	210Pb	10.4 (7.8)	7.8 (7.8-10.4)	Xia et al., 2015
	JXW	May, 2011	*Kandelia candel*	u/n	210Pb	5.2 (4.4)	4.4 (4.4-5.2)	Xia et al., 2015
	SJC	May, 2011	*Aegiceras corniculatum*	u/n	210Pb	5.2 (5.2)	5.2	Xia et al., 2015
Qinzhou Bay	LM01	2007	*u/n*	u/n	210Pb-CIC	6.1	6.1	Li, 2010; Li et al., 2010
	Q24(24-2)	2007	*u/n*	High-tidal	210Pb-CIC	25	25	Li, 2010; Li et al., 2010
	Q32(32-1)	2007	*u/n*	front of the dike	210Pb-CIC	16.8	16.8	Li, 2010; Li et al., 2010
	Q37(37-2)	2007	*u/n*	Midium-tidal	210Pb-CIC	6.3	6.3	Li, 2010; Li et al., 2010
Nanliughe Estuary, Beihai	NL1	May, 2013	*Aegiceras corniculatum*	u/n	^{210}Pb (CRS)	10.3 (0-50cm) 16.3 (14~23, 0-10cm); 8.8 (6~14, >10cm)	10.3 (6.0-23)	Liu et al., 2017
	C3	May, 2013	*100*	Inside mangrove	210Pb-CIC 210Pb ST-Sa SDM	7.3 8.1 9.3 9.1 (1986-2008); 13.0 (2008-2013)	9.4 (7.3-13.0)	Xu,2020 Chu, 2021 Xu,2020 Chu, 2021
	C5	May, 2013	*100*	Mangrove Transition Zone	^{210}Pb-(CF-CS) ST-Sa SDM	7.0 (≥10 cm) u/n 7.3 (1986-2008); 22.0 (2008-2013)	14.5 (7.0-22.0)	Chu, 2021 Chu, 2021
	C7	May, 2013	*100*	Front edge of mangrove	^{210}Pb-CIC ST-Sa SDM	5.2 15.0 14.1(1986-2008); 12.0 (2008-2013)	10.7 (5.2-15.0)	Xu,2020 Xu,2020 Chu, 2021
Muanjing,Nanliughe Estuary, Beihai	MAJ-1	u/n	*u/n*	Inside mangrove	210Pb-CIC	u/n	u/n	Xu,2020
	MAJ-2	u/n	*u/n*	Front edge of mangrove	210Pb-CIC	u/n	u/n	Xu,2020
Jinhai Bay (Daguan--sha), Beihai	Z1 Z-1	May-19 Dec.18	*Avicennia marina* *u/n*	u/n Front edge of mangrove	SDM SDM	2.0 (2008-); 4.0 (2008-2017)	3.0 (2.0-4.0)	Liu et al., 2022 Chu, 2021
	Z2 Z-2	May-19 Dec.18	*Avicennia marina* *u/n*	u/n Inside mangrove	SDM SDM	22.0 (2008-) 22.0 (2008-2017)	22.0	Liu et al., 2022 Chu, 2021
	DGS1-1 DGS1-2	u/n u/n	*u/n* *u/n*	Front edge of mangrove	ST-Sa ST-Sa	4.1 u/n	4.1	Xu,2020 Xu,2020
	DGS3 DGS3 DGS-3	Aug., 2014 2014 Aug., 2014	*u/n* *u/n* *u/n*	u/n u/n Mangrove along the deke	^{210}Pb (CRS) ^{210}Pb (CRS) ^{210}Pb-CFS	17.6 (0-70cm) 22.3(18~26, 0-16cm) 15.5(13~17, >16cm) 15.6 14.3	17.45 (13.0-26.0)	Liu et al., 2017 Liu et al., 2022 Chu, 2021
Jinhai Bay (Daguan--sha), Beihai	JHW1	May，2017	*Avicennia marina*	Front edge of mangrove	^{210}Pb-CIC ^{210}Pb-CFS ^{210}Pb(CRS)	5.5 6.7 (≥14 cm) 6.1 (≥14 cm)	5.0 (2.2-8.0)	Xu, 2020 Chu, 2021 Liu et al., 2022

					SDM	5.8 (1934~1965); 4.7 (1965~1986); 4.7 (1986~2003); 8.0 (2003~2008); 4.4 (2008~2017);		Chu, 2021
					SDM	5.7 (1986~2008); 5.3 (1986~2017); 5.4 (1934~1986) 5.3 (1986-2017); 5.7 (1986-2008), 2.2 (2008-2017) 5.8 (1934~1965); 4.8 (1965~1986)		Liu et al., 2022
	JHW2	2017	*Avicennia marina*	Mangrove Transition Zone	ST-Sa	u/n	8.6 (5.45-10.0)	Xu,2020
					SDM	7.1 (1986-2017) 5.45 (1986-2008); 10.0 (2008-2017) 7.1 (1986-2017) 5.7 (1986-2008); 10.0 (2008-2017)		Chu, 2021 Liu et al., 2022
	JHW3	2017	*Avicennia marina*	Inside mangrove	ST-Sa	4.1	9.7 (4.1-18.0)	Xu,2020
					SDM	11.0 (1986-2017) 7.3 (1986-2008); 7.1 (1986~2003); 8.0 (2003~2008); 18.0 (2008-2017) 11.0 (1986-2017); 7.3 (1986~2003); 14.0 (2008-2017)		Chu, 2021 Liu et al., 2022
Tieshan--gang (Tieshan port)	TSW-1	u/n	*u/n*	Inside mangrove	210Pb-CIC	1.7	1.7	Xu,2020
	TSW-2	u/n	*u/n*	Front edge of mangrove	210Pb-CIC	5.5	5.5	Xu,2020
Dandouhai	DDH	May, 2011	*Avicennia marina*	u/n	^{210}Pb	1.9 (1.6)	1.6 (1.6-1.9)	Xia et al., 2015
	DDH-3	u/n				u/n		Xu,2020
Yingluo bay, Beihai	C11	2007	-	u/n	^{210}Pb-CIC	7.0	7.0	Li, 2010
	O18	1996	-	u/n	^{210}Pb-CIC	4.4	4.4	Li, 2010
	YLW01	May, 2011	*Rhizophora stylosa*	u/n	^{210}Pb	3.3 (3.1)	3.1 (3.1-3.3)	Xia et al., 2015
	YLW02	May, 2011	*Kandelia candel*	u/n	^{210}Pb	3.1 (2.6) 1.5-3.9 (1.6)	2.1 (1.5-3.9)	Xia et al., 2015 Luo et al., 2017
	YLW03	May, 2011	*Bruguiera gymnorrhiza*	u/n	^{210}Pb	2.6 (2.4)	2.4 (2.4-2.6)	Xia et al., 2015
	YLW04	May, 2011	*Aegiceras corniculatum*	u/n	^{210}Pb	2.2 (2.2) 2.0-3.9, mean=2.1 (1.85)	2.0 (1.85-3.9)	Xia et al., 2015 Luo et al., 2017

Note: (1) ST-Sa represents thickness of sedimentary layer—stand age method.

(2)SDM represents the storm deposition dating method. u/n represents no data.

(3) Mean Accretion rate is used the mean value of all min-values in the suface.

(4) CFS or CF-CS represents the model of Constant Flux (Constant rate of Supply; CIC represents the model of Constant Initial Concentration; CRS presents the model of Constant Rate of Supply.

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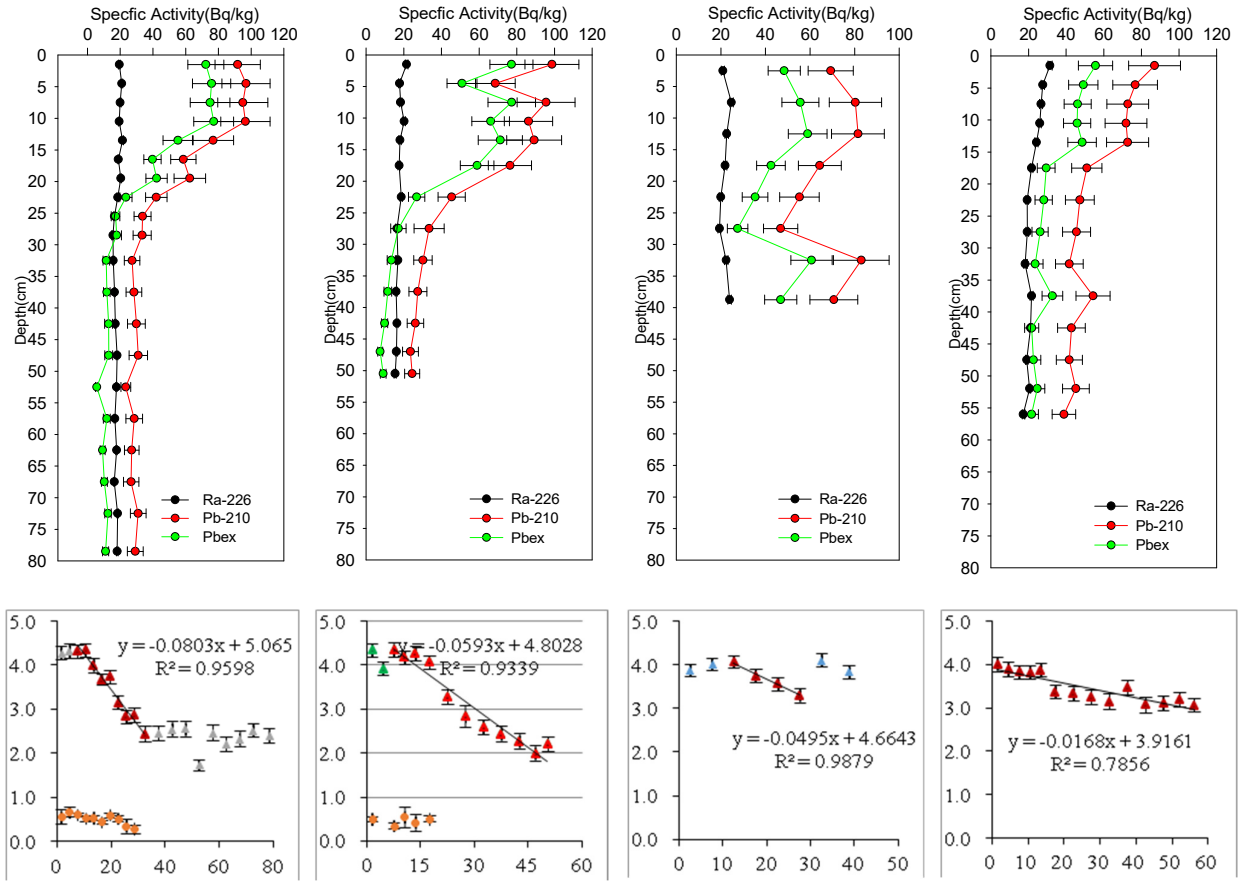
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(A) SJ-1 **(B) SJ-2** **(C) RST-1** **(D) RST-2**

SI Fig. S1 Distribution of ^{210}Pb, ^{226}Ra, and $^{210}Pb_{ex}$ of four soil cores (A) SJ-1, (B) SJ-2, (C) RST-1, and (D) RST-2