

DATE	SITE	LANDSCAPE	Core	Layer	LAYER TOP DEPTH (cm)	LAYER BOTTOM DEPTH (cm)	SAMPLE DEPTH (cm)	SAMPLE DESCRIPTION	DESCRIPTION MODIFIER	BULK DENSITY ¹ (g/cm ³)	BULK DENSITY ² (g/cm ³)	% CARBON
8/2/2014	El Merito	Mudflat	1	1	0	75	5	Clay	Brown with roots to Gray/gr	1.34	1.93	0.55
8/2/2014	El Merito	Mudflat	1	2	75	214	5	Peat		1.05	0.89	10.03
8/2/2014	El Merito	Mudflat	1	3	214	255	5	Peat	Clayey	1.05	0.95	8.35
8/2/2014	El Merito	Mudflat	2	1	0	42	5	Clay	Brown to gray, with roots	1.34	1.35	2.78
8/2/2014	El Merito	Mudflat	2	2	42	205	5	Peat	Muddy at bottom	1.05	0.84	11.42
8/2/2014	El Merito	Mudflat	2	3	205	221	5	Clay	Loose, peaty to sandy	1.00	1.02	7.02
8/3/2014	Puerto Gata	Fringe	1	1	0	58	5	Mud	Loose, detrital with roots to	1.34	0.87	10.53
8/3/2014	Puerto Gata	Fringe	1	2	58	60	2	Peat		1.05	0.89	10.00
8/3/2014	Puerto Gata	Fringe	2	1	0	45	5	Mud	Sandy, with roots	1.34	0.60	22.26
8/3/2014	Puerto Gata	Fringe	2	2	45	54	5	Peat	Muddy	1.05	1.29	3.27
8/3/2014	Puerto Gata	Fringe	2	3	54	61	5	Sand	Course, muddy, peaty	1.34	0.94	8.58
8/3/2014	Puerto Gata	Fringe	3	1	0	51	5	Mud	Sandy to peaty	1.20	0.94	8.59
8/3/2014	Puerto Gata	Fringe	3	2	51	64	5	Peat	Muddy	1.05	1.02	6.90
8/3/2014	Puerto Gata	Fringe	3	3	64	66	2	Mud	Sandy	1.34	1.04	6.62
8/3/2014	Puerto Gata	Mudflat	4	1	0	4	4	Mud	Detrital	1.34	0.78	13.53
8/3/2014	Puerto Gata	Mudflat	4	2	4	41	5	Peat	Muddy at top	1.05	0.62	21.08
8/3/2014	Puerto Gata	Mudflat	4	3	41	50	5	Peat	Loose, muddy	1.05	0.92	9.10
8/3/2014	Puerto Gata	Mudflat	4	4	50	78	5	Sand	Course, muddy, peaty	1.20	0.96	8.24
8/3/2014	Puerto Gata	Mudflat	5	1	0	8	5	Mud	With roots	1.34	0.84	11.41
8/3/2014	Puerto Gata	Mudflat	5	2	8	36	5	Peat		1.05	0.66	18.92
8/3/2014	Puerto Gata	Mudflat	5	3	36	79	5	Peat	Course-sandy	1.05	0.89	10.04
8/3/2014	Puerto Gata	Mudflat	5	4	79	81	2	Sand	Muddy	1.34	1.03	6.66
8/3/2014	Puerto Gata	Mudflat	6	1	0	13	5	Mud	With roots	1.34	0.86	10.87
8/3/2014	Puerto Gata	Mudflat	6	2	13	22	5	Peat		1.05	0.74	15.20
8/3/2014	Puerto Gata	Mudflat	6	3	22	61	5	Sand	Course, with shells, peaty at	1.66	0.90	9.82
8/3/2014	Puerto Gata	Mudflat	7	1	0	9	5	Mud	With roots	1.34	0.97	7.90
8/3/2014	Puerto Gata	Mudflat	7	2	9	35	5	Peat		1.05	0.68	17.75
8/3/2014	Puerto Gata	Mudflat	7	3	35	50	5	Sand	Course, peaty, with shells	1.66	0.86	10.88
7/31/2014	San Gabriel	Mudflat	1	1	12	50	5	Clay	Loamy	1.34	1.10	5.48
7/31/2014	San Gabriel	Mudflat	1	2	50	91	5	Peat	Loamy at top	1.05	0.86	10.90
7/31/2014	San Gabriel	Mudflat	1	3	91	123	5	Peat	Muddy	1.05	1.00	7.37
7/31/2014	San Gabriel	Mudflat	1	4	123	126	3	Sand	Calcite	1.66	0.92	9.29
7/31/2014	San Gabriel	Mudflat	2	1	0	53	5	Clay	Loamy, with roots, sandy at 1	1.34	1.03	6.82
7/31/2014	San Gabriel	Mudflat	2	2	53	93	5	Peat		1.05	0.93	8.99
7/31/2014	San Gabriel	Mudflat	2	3	93	114	5	Peat	Muddy to sandy	1.05	0.96	8.23
7/31/2014	San Gabriel	Mudflat	2	4	114	127	5	Sand	Muddy	1.34	1.03	6.83
7/31/2014	San Gabriel	Mudflat	2	5	127	138	5	Clay	Peaty	1.00	0.94	8.67
8/4/2014	San Jos é	Mudflat	1	1	0	8	4	Peat	Muddy	1.05	0.63	20.82
8/4/2014	San Jos é	Mudflat	1	2	8	128	5	Peat		1.05	0.62	21.30
8/4/2014	San Jos é	Mudflat	1	3	128	150	5	Peat	Clayey	1.05	0.64	20.00
8/4/2014	San Jos é	Mudflat	1	4	150	193	5	Clay	Sandy, peaty	1.20	1.24	3.73

Notes:

(I) Samples collected by Matt Costa and Paula Ezcurra. Samples and data form part of Costa's PhD dissertation work at SIO.

(II) These samples were taken with a Russian peat corer, and the sections for bulk density tended to break and disintegrate when separated from the corer. For this reason, we used two corrected estimates of bulk density:

(1) For the first estimate we used the mean bulk density value from all samples in a similar landform and type of substrate from the 2013 sampling at Balandra and Magdalena.

(2) For the second estimate of bulk density we used the predictor equation $BD = 1.7154 - 0.3592 \ln C$; where BD stands for estimated bulk density, C is the relative carbon content, and "ln" is the natural logarithm.

(this equation was calibrated on our 2013 sampling at Balandra and Magdalena; $r = -0.671$, $P < 0.001$)

(III) The coordinates of the centerpoint of each mudflat were registered. All cores were taken within a 100-meter radius of the centerpoint.

	Latitude	Longitude
El Merito	24°18'04"N	110°19'36"W
San Jose	24°52'09"N	110°34'32"W
San Gabriel	24°25'58"N	110°20'49"W
Puerto Gata	24°14'58"N	110°18'46"W

Additional carbon data from Balandra, 2013 sampling

DATE	SITE	LANDSCAPE	LAYER TOP DEPTH (cm)	LAYER BOTTOM DEPTH (cm)	SAMPLE DEPTH (cm)	SAMPLE COLOR	SAMPLE TEXTURE	BULK DENSITY (g/cm ³)	% CARBON
9/7/2013	Balandra	Avicennia mudflat	0	40	0-5	reddish olive-gray	sandy clay	1.47	0.70
9/7/2013	Balandra	Avicennia mudflat	40	120	47-52	reddish olive-gray	9-40 sandy clay; 40-52 peaty	1.76	0.82
9/7/2013	Balandra	Avicennia mudflat	120	173	167-173	reddish peat	peat (spongy)	0.79	6.42
9/7/2013	Balandra	Avicennia mudflat	173	200	180	reddish peat	peat (spongy)	1.58	1.20
9/7/2013	Balandra	a upper mudflat/hinterland	0	8	0-5	olive-brown	loamy clay	1.22	1.11
9/7/2013	Balandra	a upper mudflat/hinterland	8	45	40-45	olive-brown	loamy clay	1.94	0.37
9/7/2013	Balandra	a upper mudflat/hinterland	45	118	113-118	45-110: olive-greenish gray	45-110: loamy clay; at 110 cr	1.25	3.74
9/7/2013	Balandra	a upper mudflat/hinterland	118	160	155-160	brown-reddish peat	peat	1.39	4.39
9/7/2013	Balandra	a upper mudflat/hinterland	160	182	177-182	olive gray	peaty sand	1.42	2.83
9/7/2013	Balandra	a upper mudflat/hinterland	182	220	190-195	olive-blue gray (anoxic)	peaty sand	0.97	2.65
9/7/2013	Balandra	a upper mudflat/hinterland	220	226	221-226	white calcite	sandy gravel	1.95	5.66
9/7/2013	Balandra	Rhizophora fringe	0	9	4-9	olive gray	0-3 cm, calcite fragments in :	0.74	9.61
9/7/2013	Balandra	Rhizophora fringe	9	43	38-43	9-40: mucky peat; 40-43: w	spongy peat; and calcite coa	1.11	11.15
9/7/2013	Balandra	Rhizophora fringe	43	61	56-61	whitish	calcite coarse sand	2.17	10.51
9/7/2013	Balandra	Avicennia mudflat	0	9	0-5	olive-gray	loamy clay	0.64	3.53
9/7/2013	Balandra	Avicennia mudflat	9	45	40-45	reddish peat on an olive-gr	clayey peat	0.49	17.34
9/7/2013	Balandra	Avicennia mudflat	45	119	114-119	reddish peat on an olive-gr	peat	0.56	13.92
9/7/2013	Balandra	Avicennia mudflat	119	145	140-145	red peat on a red-olive ma	peat with fragments of calcit	0.45	11.62
9/7/2013	Balandra	Avicennia mudflat	145	184	179-184	red peat, last 15 cm whitisl	peat with fragments of calcit	1.33	4.79
9/7/2013	Balandra	a upper mudflat/hinterland	0	49	4-9	light gray	loamy clay	1.44	0.60
9/7/2013	Balandra	a upper mudflat/hinterland	49	197	121-126	reddish peat with olive-gra	peaty with a clayey matrix	0.75	7.29
9/7/2013	Balandra	a upper mudflat/hinterland	197	210	201-206	reddish with white grains	peaty calcite sand	1.06	8.09