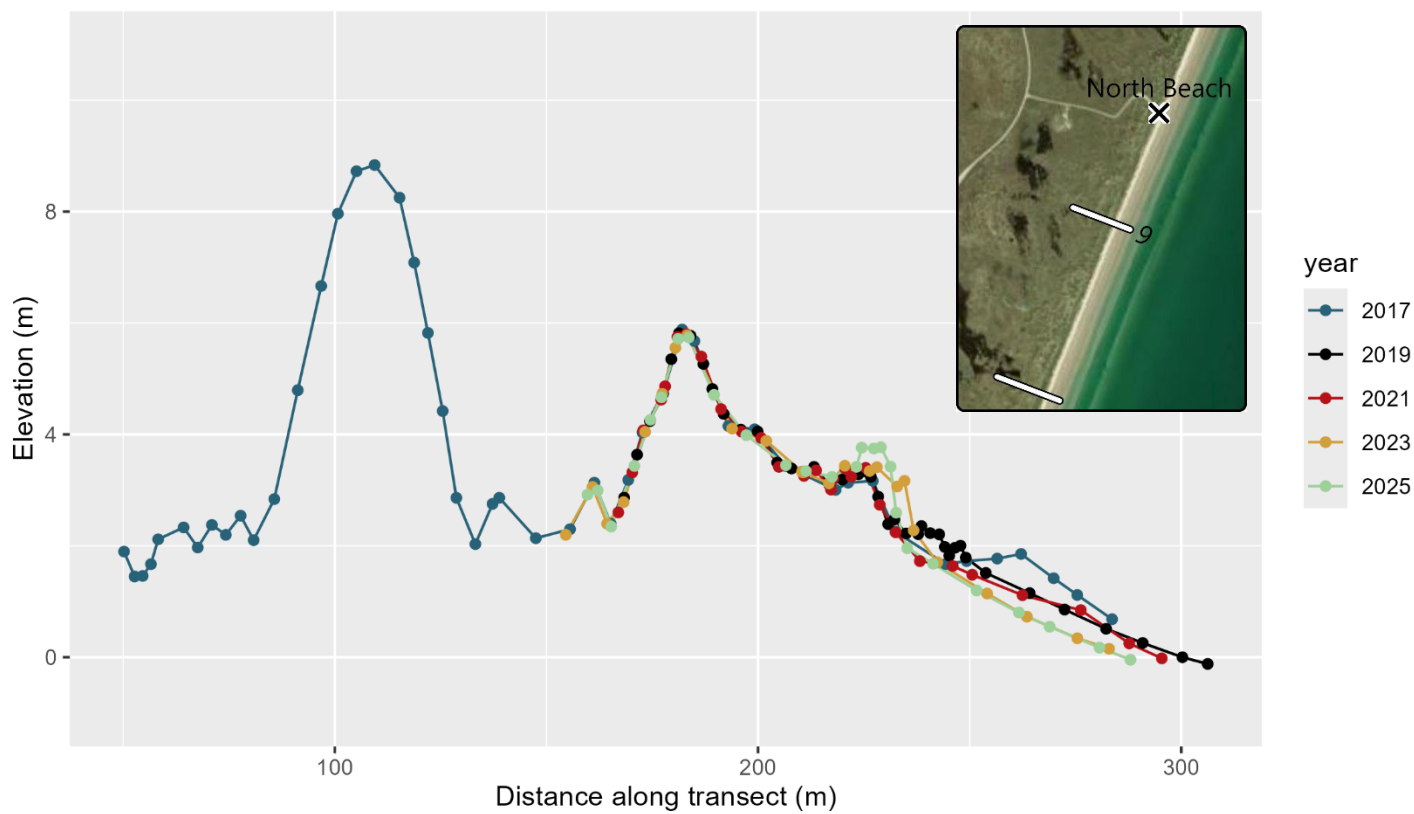


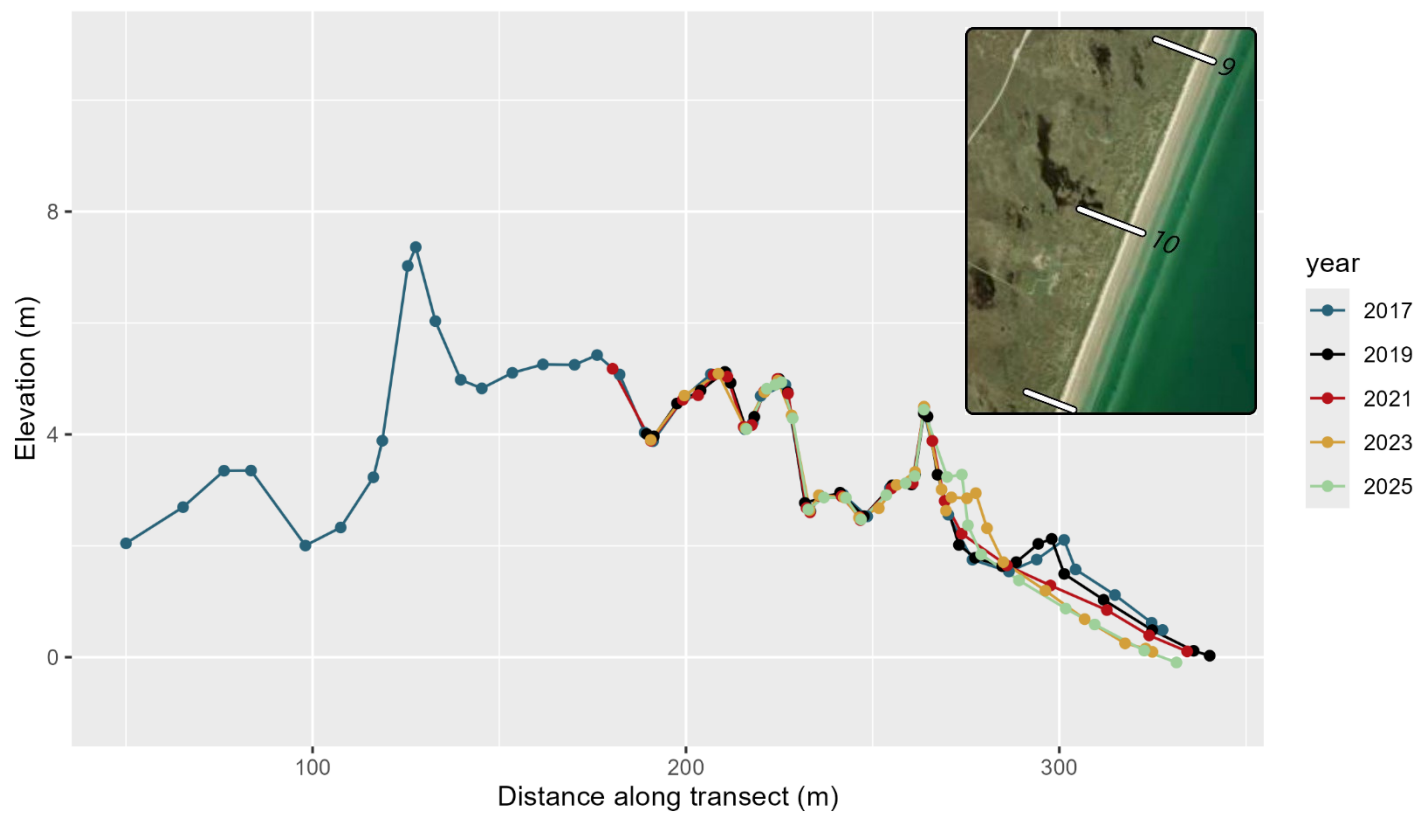
Supplemental Materials (SM 1)

National Park Service Gulf Coast Inventory and Monitoring Network (GULN) topography monitoring profile graph at Padre Island National Seashore measuring elevation along one of twenty-three spatially fixed transects. All years of GULN monitoring are included in the graph. The following twenty-three graphs are ordered from north to south and this caption applies to all pages. The map in upper right corner of each profile shows mile markers or points of interest (black 'x') and transects (white line) with labels. Only the area that lies under all three profiles (years) is used for profile area calculations. This document is part of the report: "Coastal Dynamics Monitoring at Padre Island National Seashore, Texas: 2017-2025 Data Summary" by Jeff Bracewell and Jane Carlson.

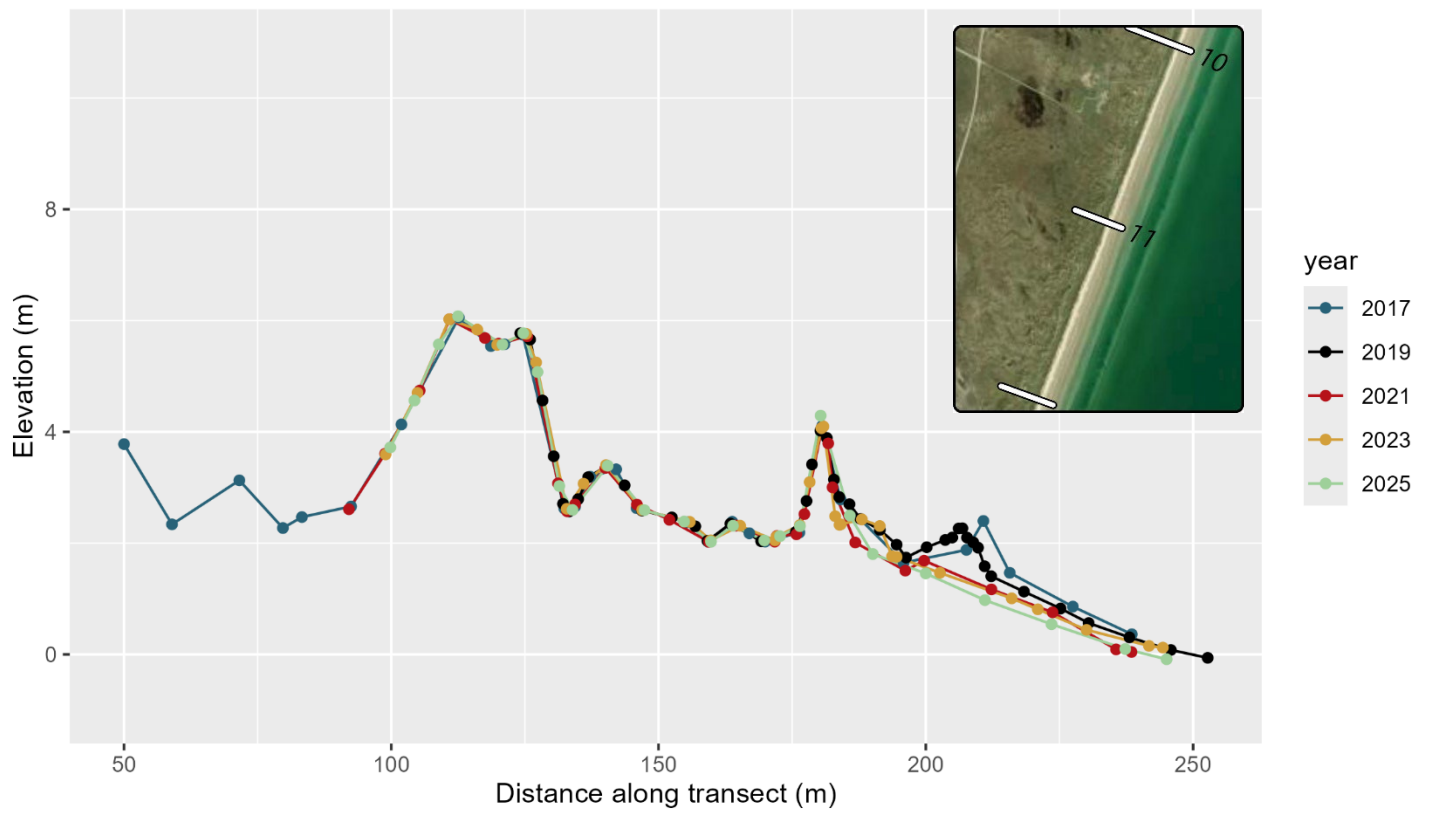
Transect 9: area 2017 = 331.4, area 2019 = 327.2, area 2021 = 318.2, area 2023 = 311.9, area 2025 = 308.7



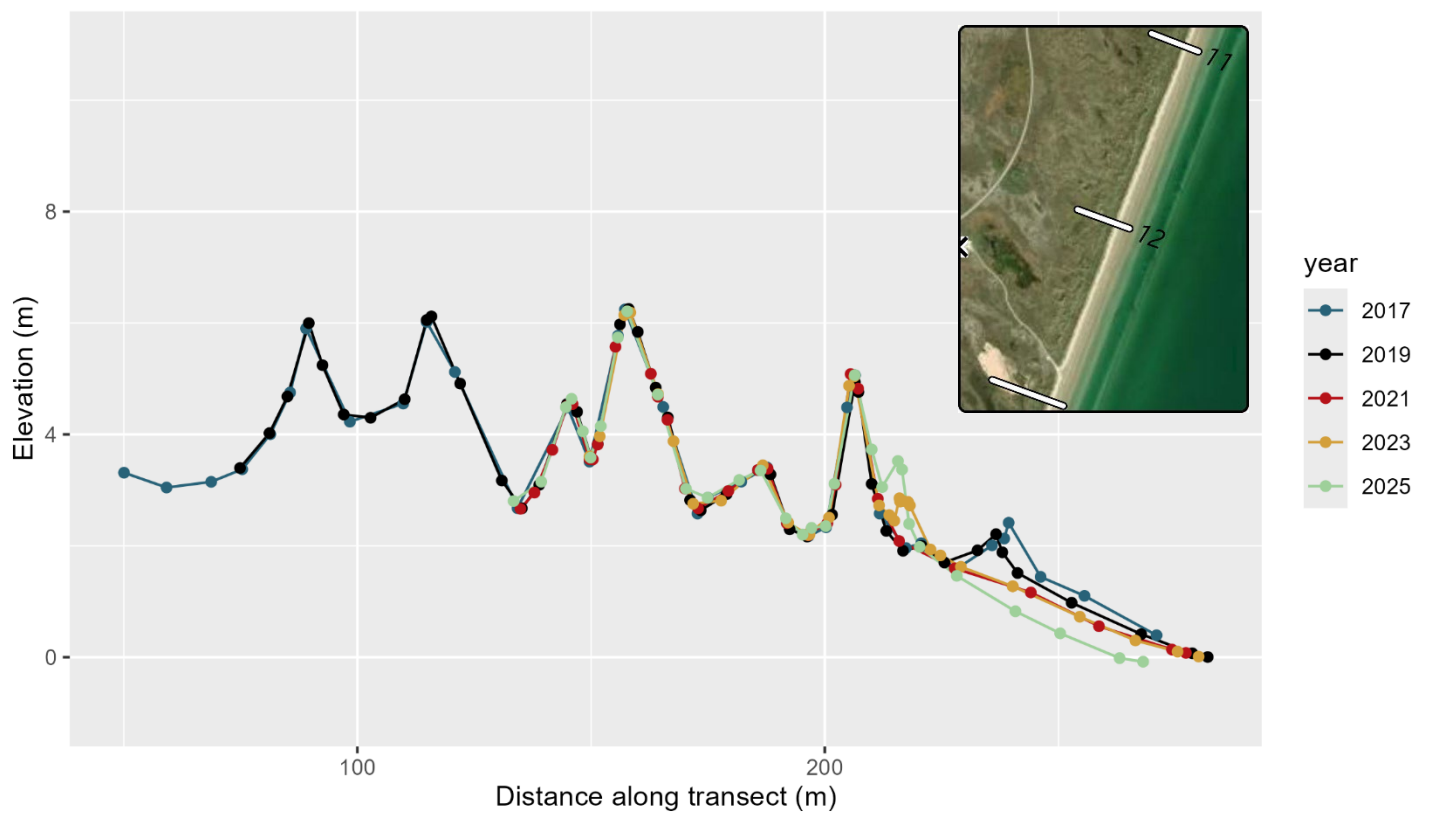
Transect 10: area 2017 = 271.4, area 2019 = 270.7, area 2021 = 260.3, area 2023 = 255.8, area 2025 = 251.8



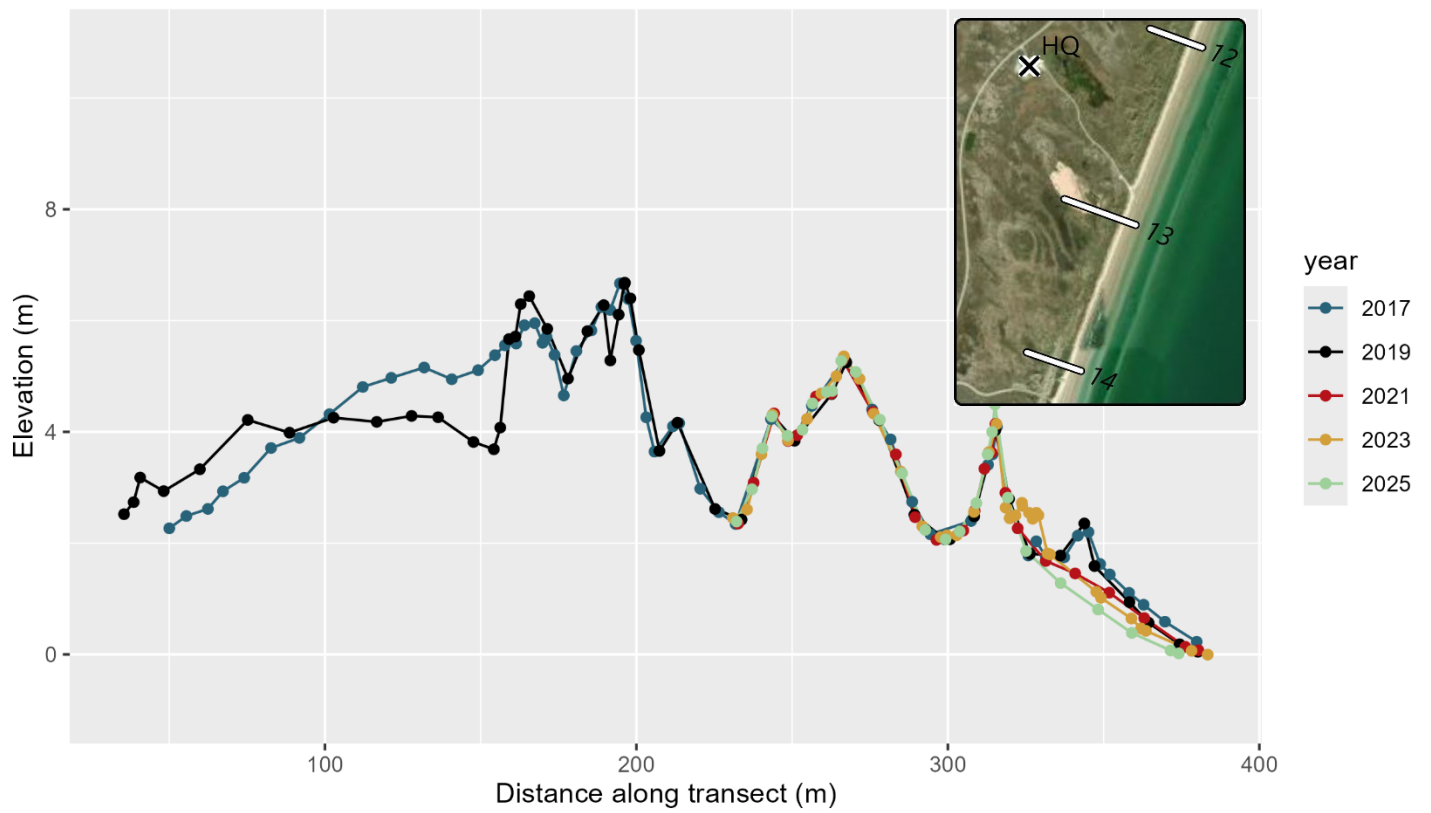
Transect 11: area 2017 = 254.3, area 2019 = 255.3, area 2021 = 232.4, area 2023 = 240.6, area 2025 = 231.2



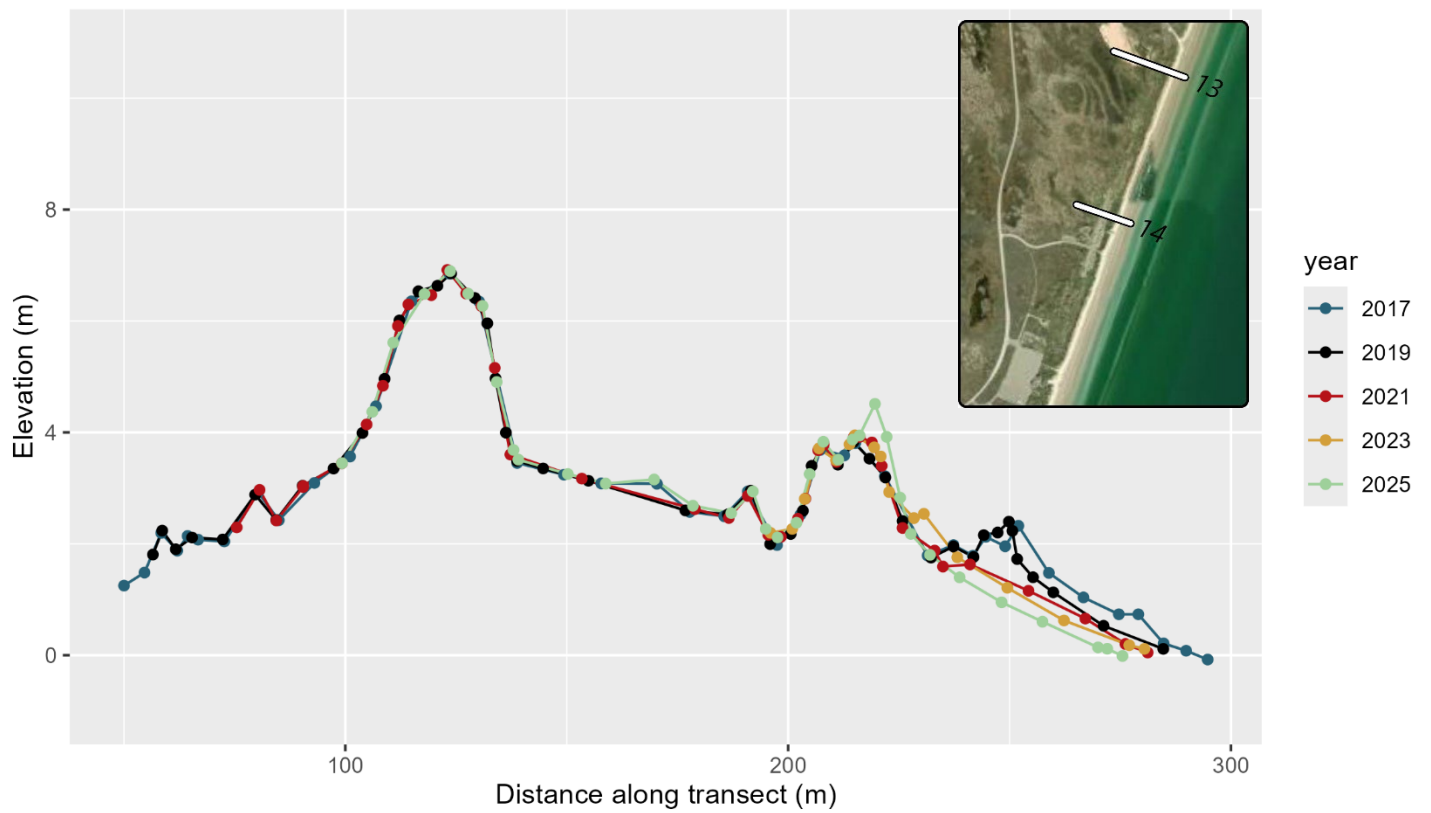
Transect 12: area 2017 = 318.8, area 2019 = 309, area 2021 = 299, area 2023 = 304.3, area 2025 = 289.3



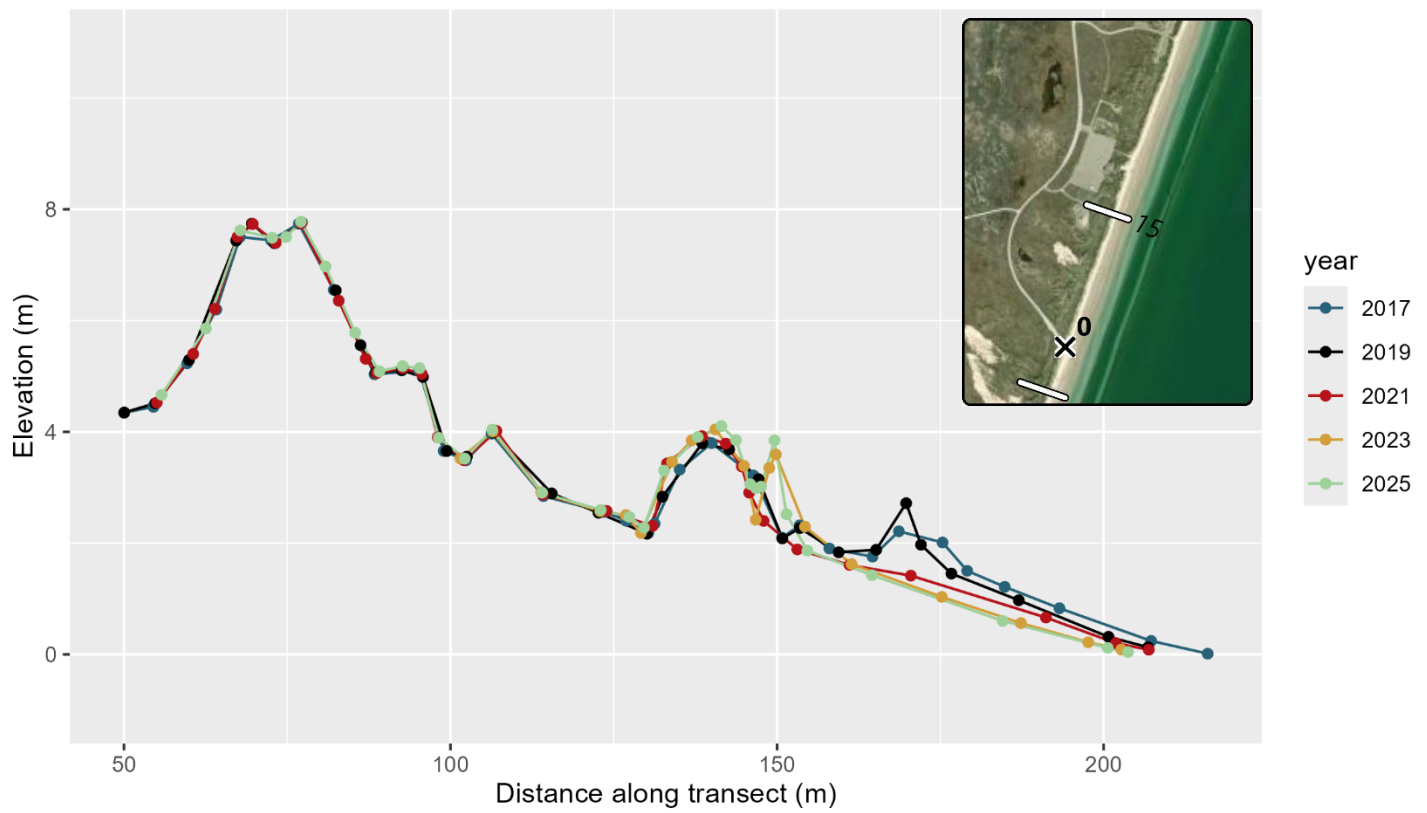
Transect 13: area 2017 = 399.1, area 2019 = 386.1, area 2021 = 378.1, area 2023 = 380, area 2025 = 365.9



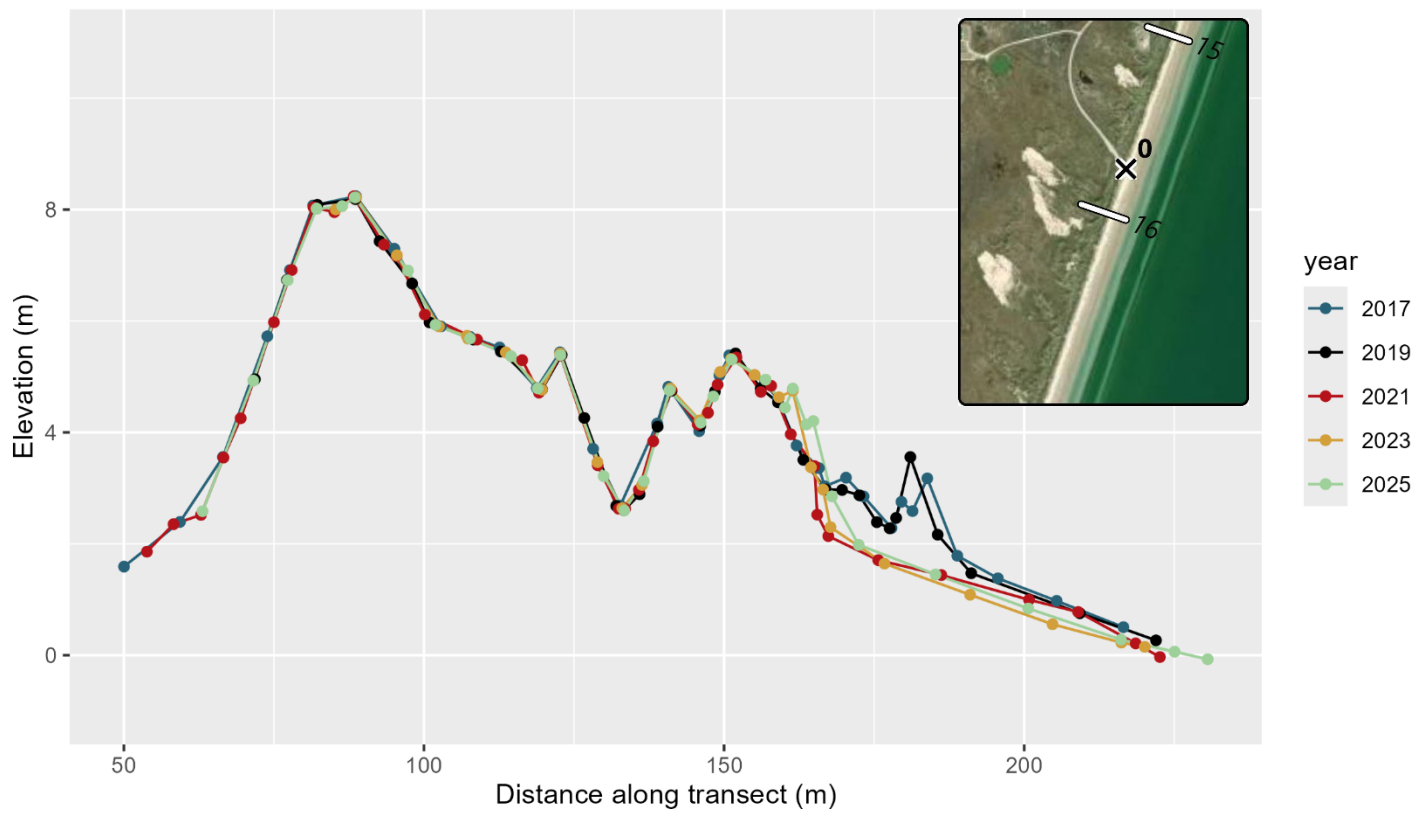
Transect 14: area 2017 = 182.4, area 2019 = 169.9, area 2021 = 157.3, area 2023 = 158.5, area 2025 = 147.8



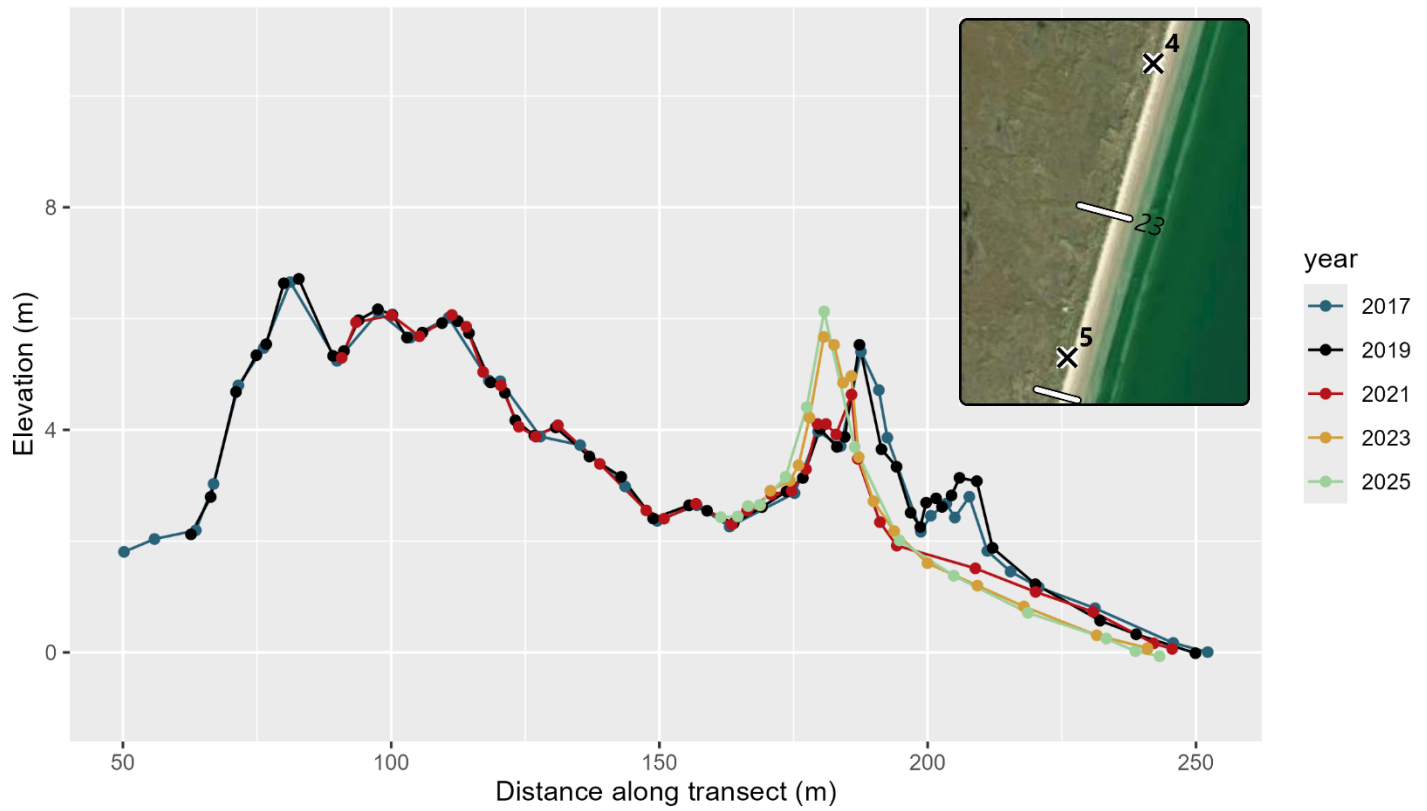
Transect 15: area 2017 = 231.9, area 2019 = 228.3, area 2021 = 213.2, area 2023 = 214.1, area 2025 = 211.6



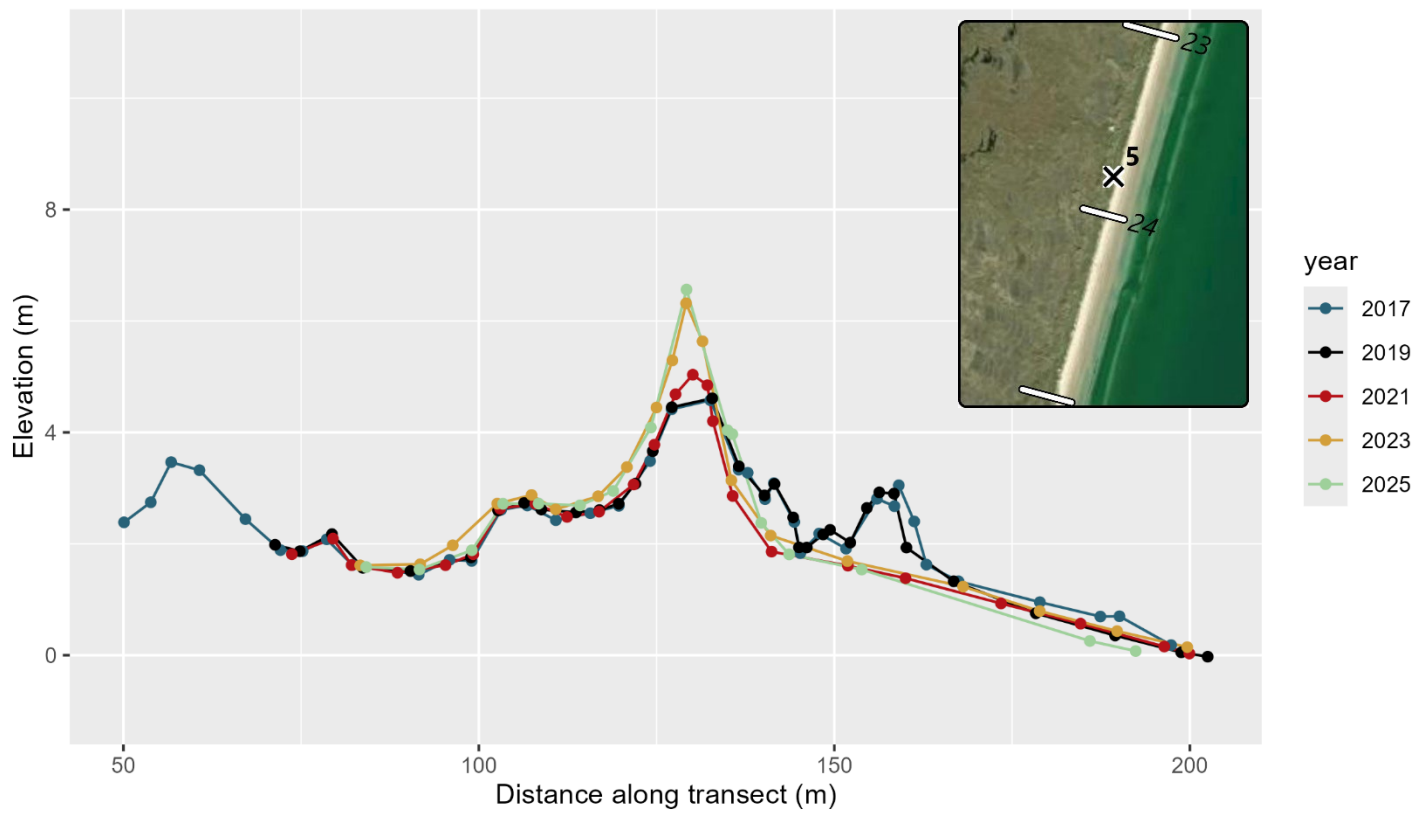
Transect 16: area 2017 = 512.8, area 2019 = 504.5, area 2021 = 479.1, area 2023 = 476.8, area 2025 = 486.7



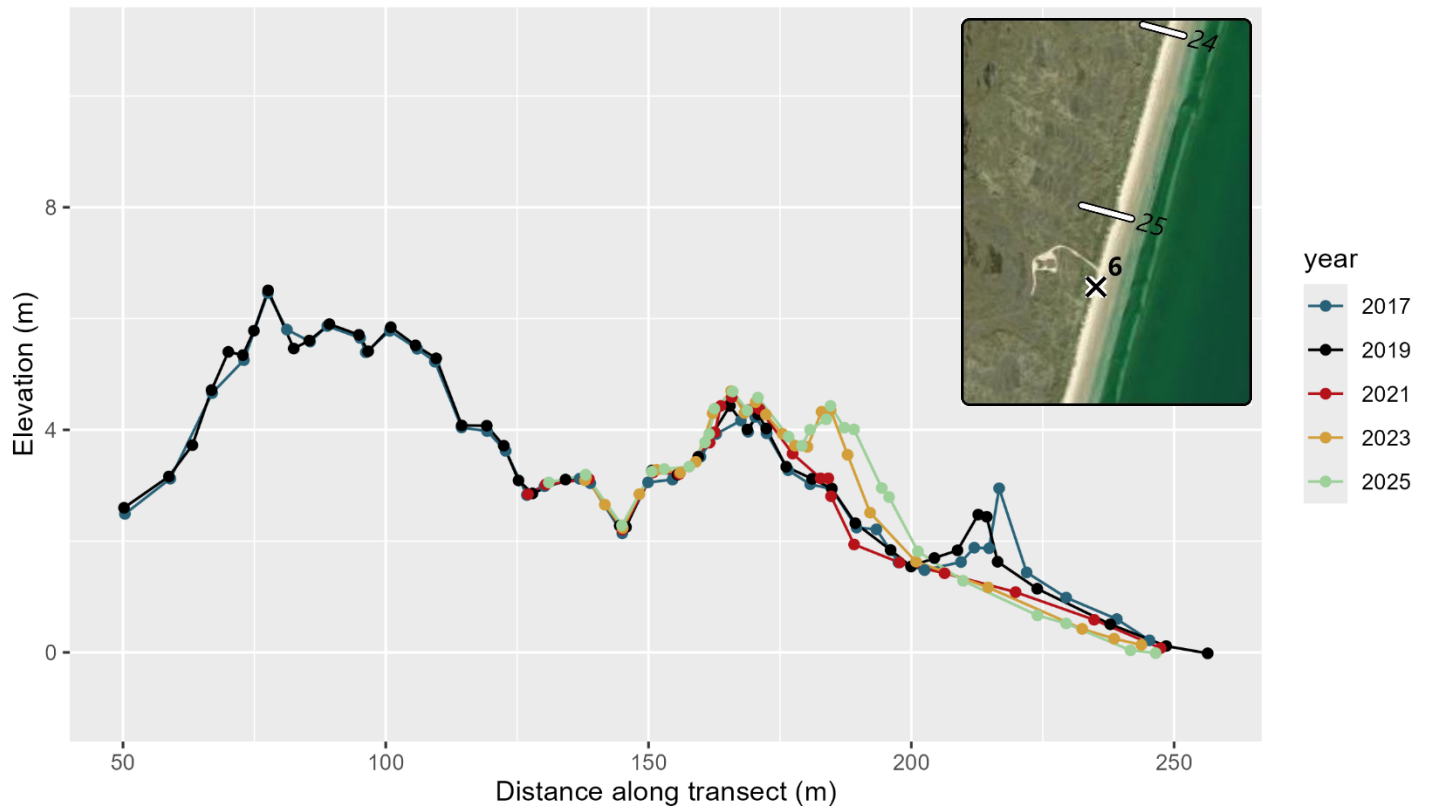
Transect 23: area 2017 = 170.6, area 2019 = 170.5, area 2021 = 137.5, area 2023 = 136.2, area 2025 = 136.7



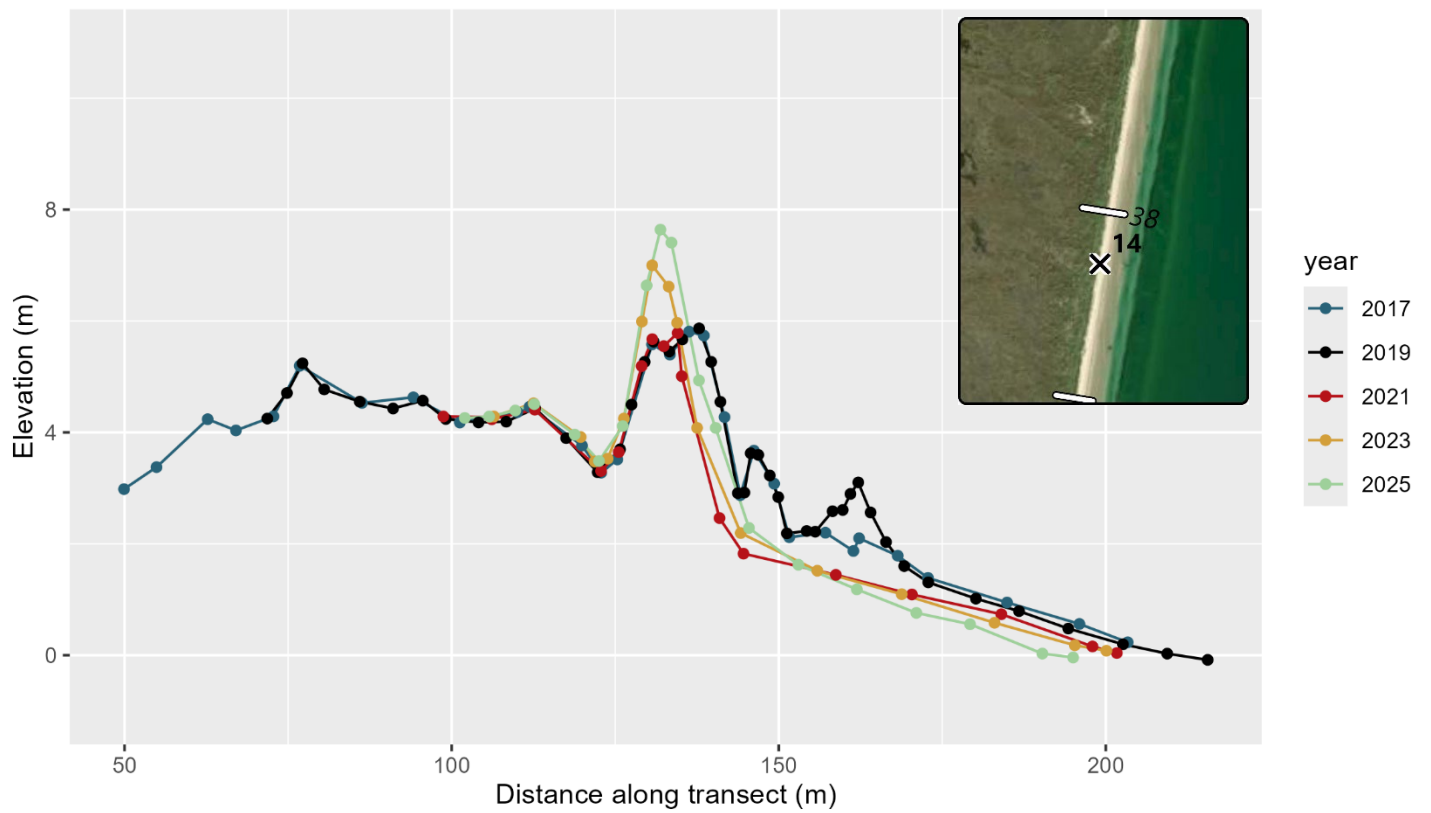
Transect 24: area 2017 = 238.6, area 2019 = 234.2, area 2021 = 212.2, area 2023 = 236.6, area 2025 = 223.6



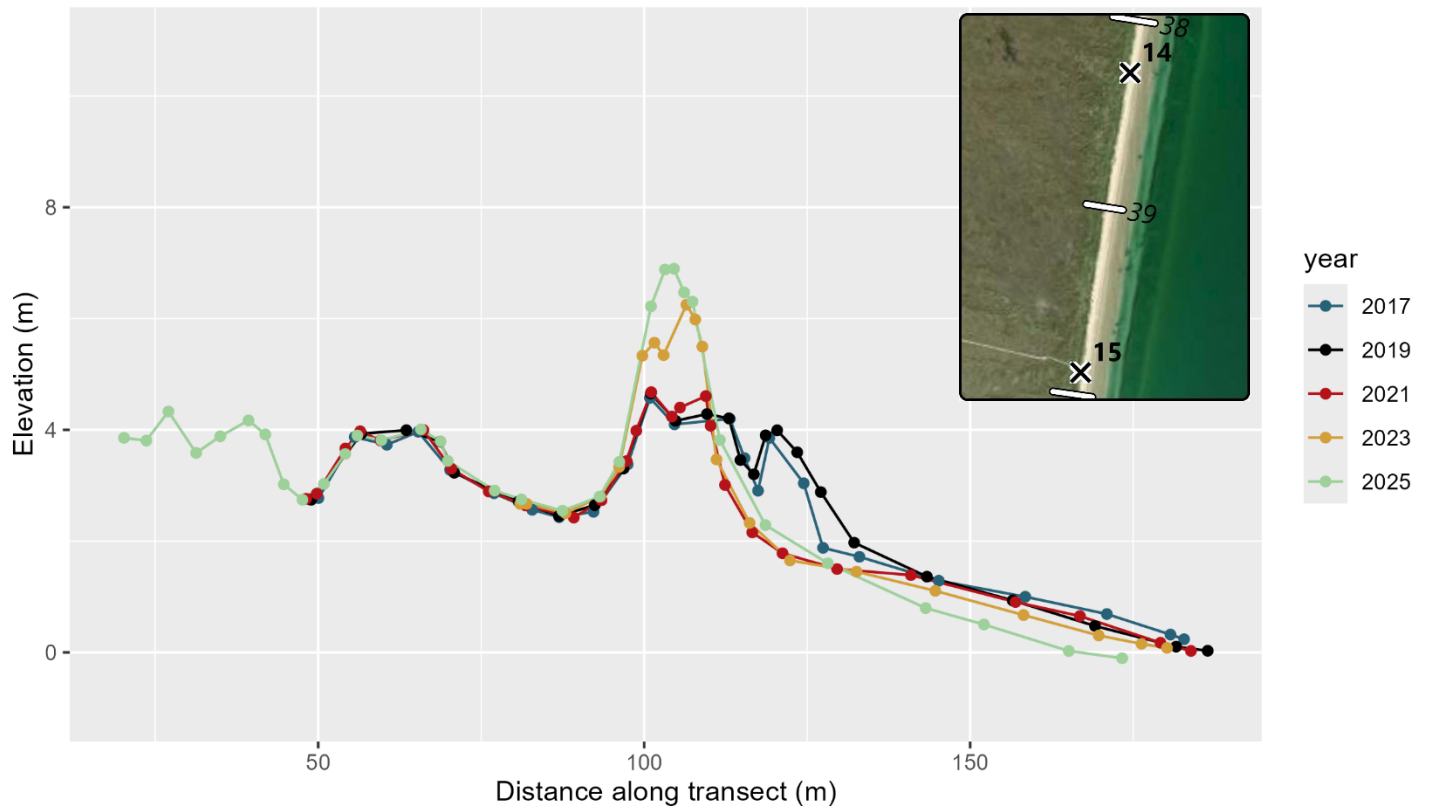
Transect 25: area 2017 = 246.2, area 2019 = 247.1, area 2021 = 234.2, area 2023 = 248.9, area 2025 = 257.7



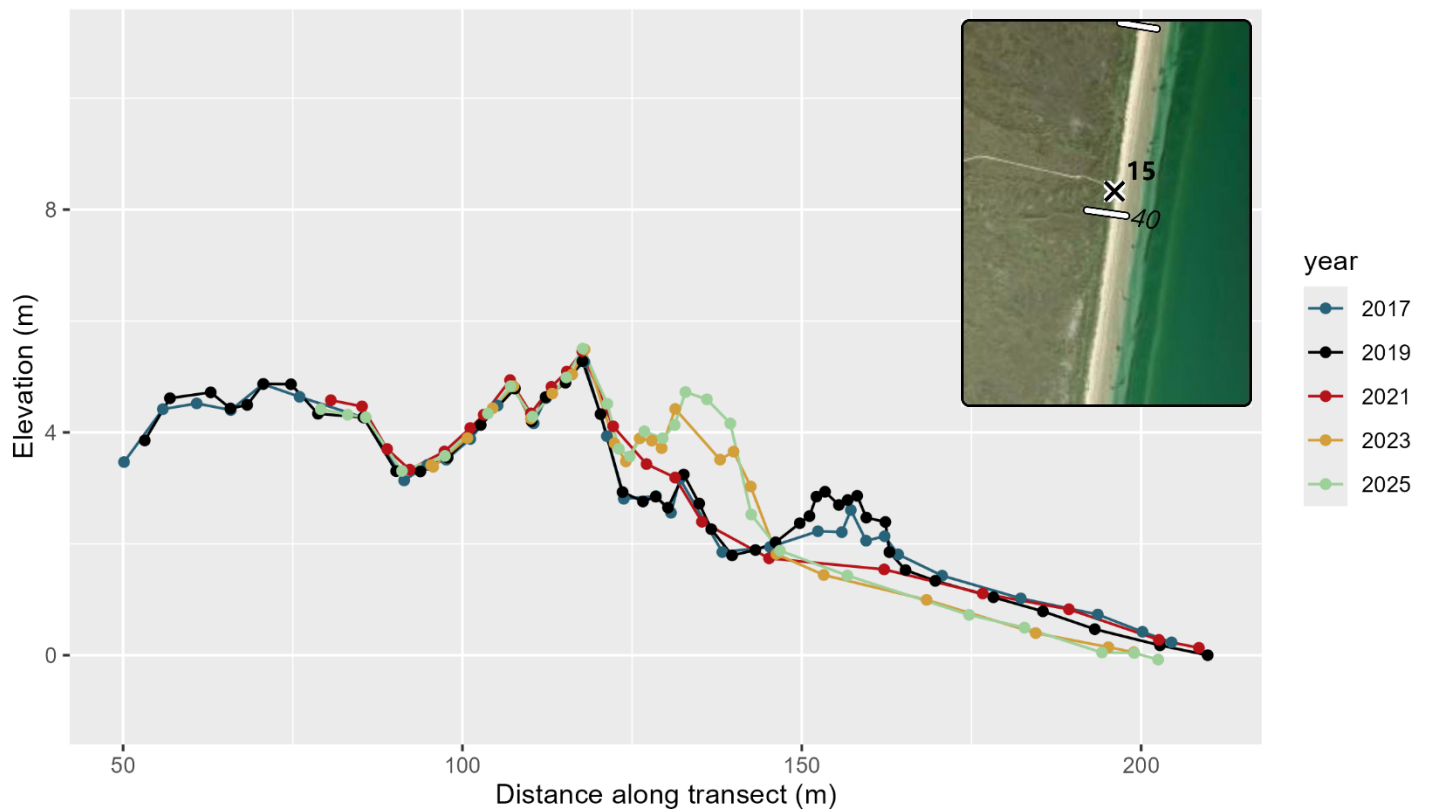
Transect 38: area 2017 = 260.7, area 2019 = 263.2, area 2021 = 213.8, area 2023 = 225.7, area 2025 = 229.2



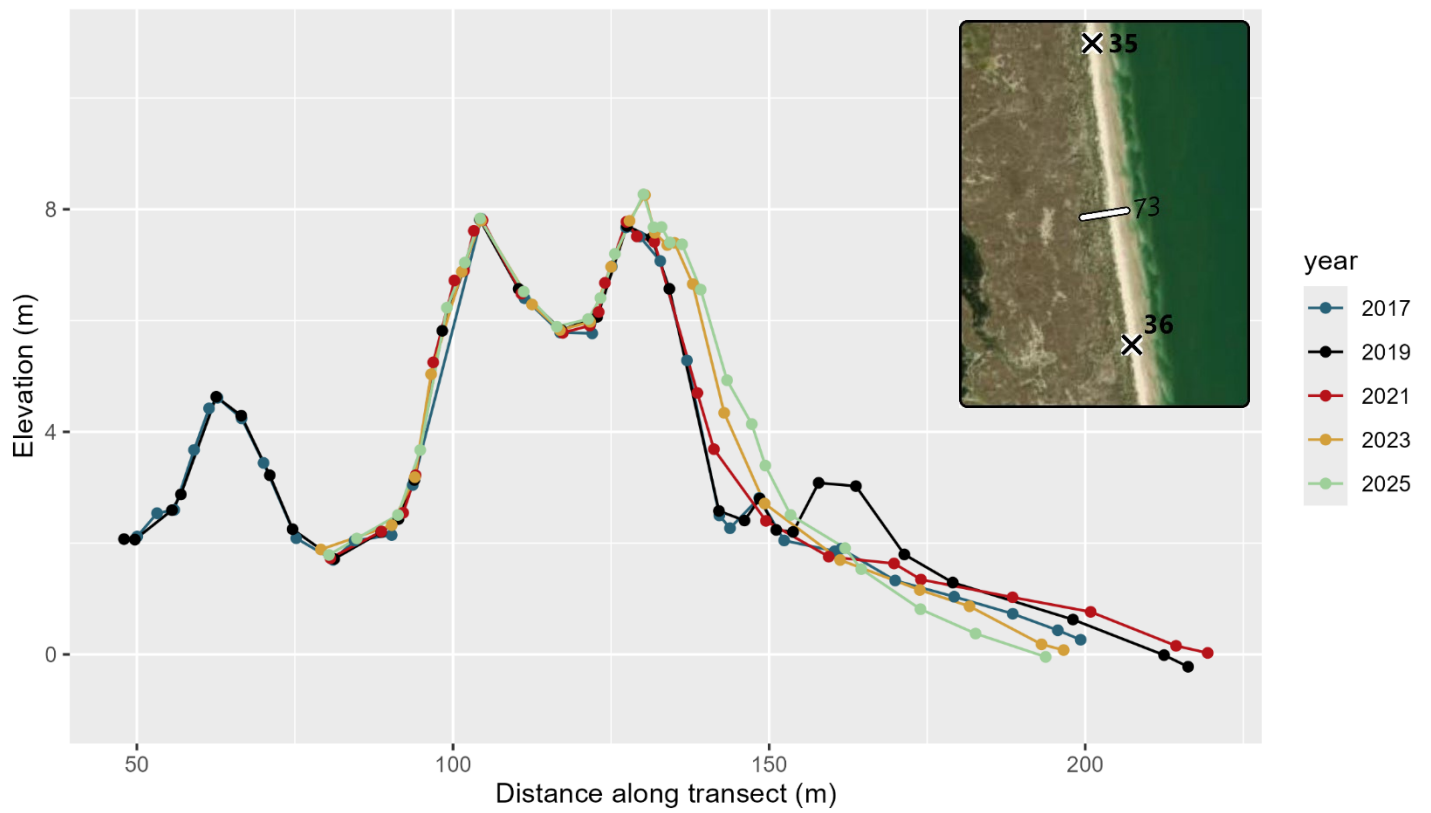
Transect 39: area 2017 = 215.1, area 2019 = 219.9, area 2021 = 189.3, area 2023 = 196.8, area 2025 = 195.6



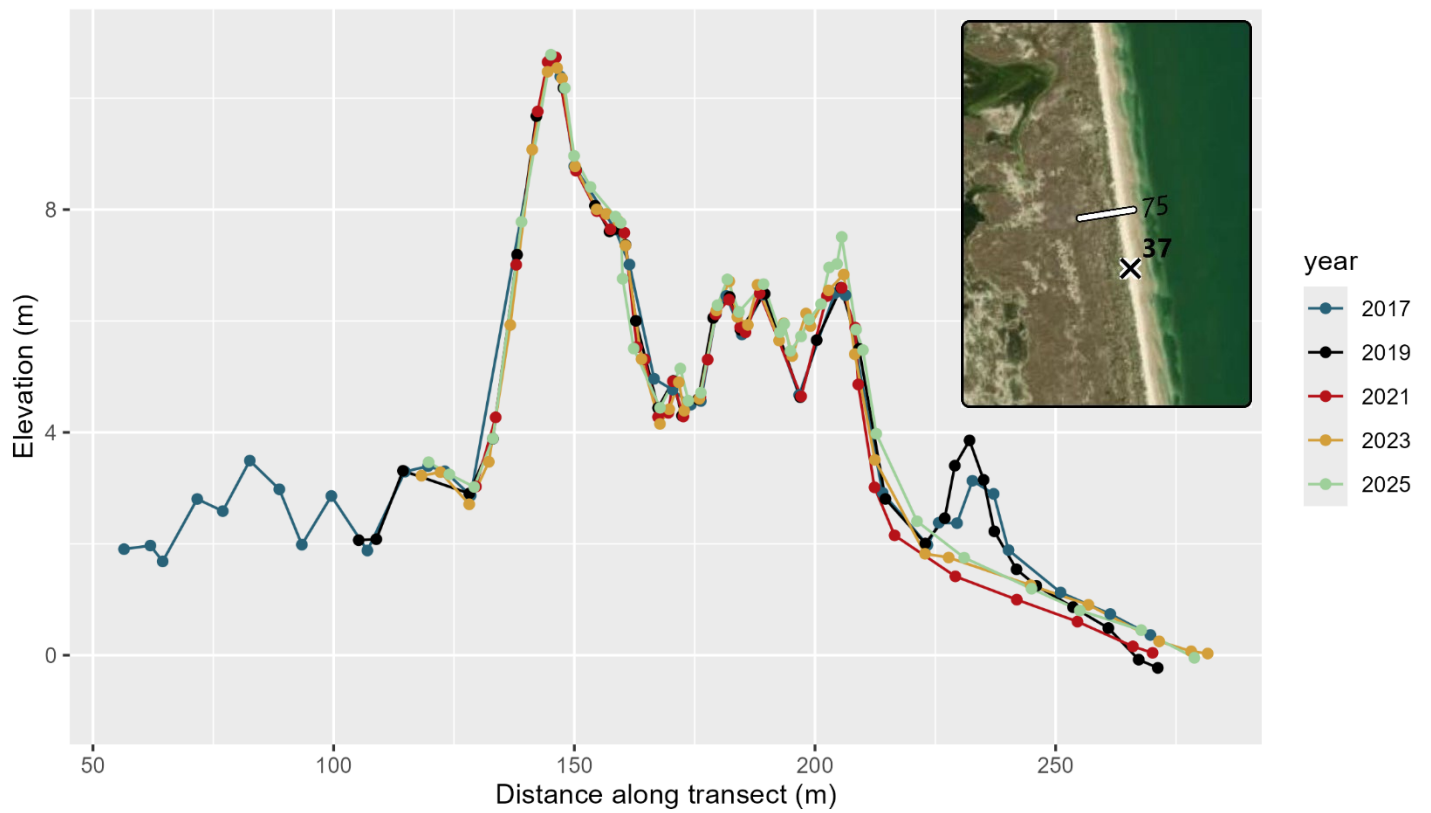
Transect 40: area 2017 = 254.1, area 2019 = 254.6, area 2021 = 253, area 2023 = 248.6, area 2025 = 255.5



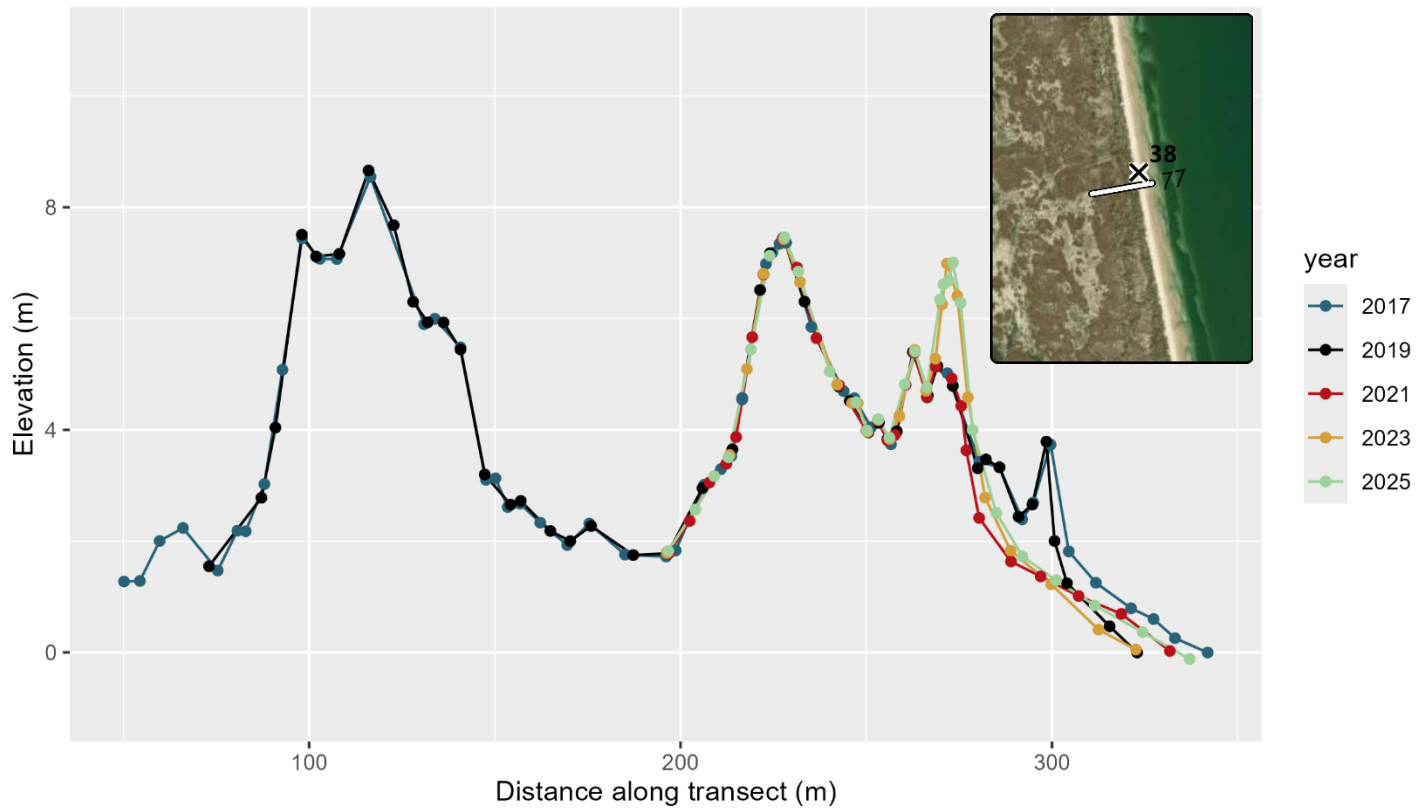
Transect 73: area 2017 = 403, area 2019 = 436.5, area 2021 = 432.2, area 2023 = 431.3, area 2025 = 435.8



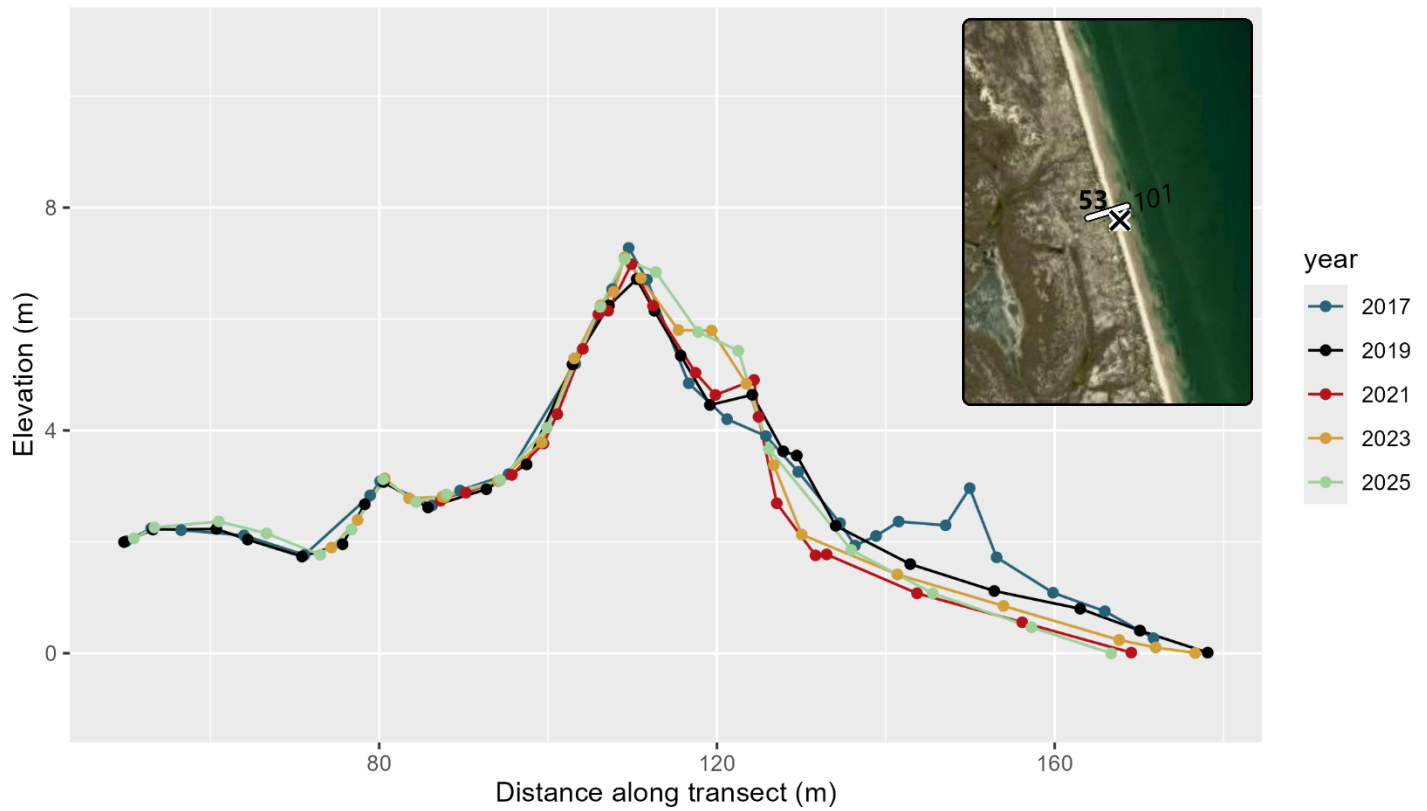
Transect 75: area 2017 = 634.4, area 2019 = 623.6, area 2021 = 583.9, area 2023 = 613, area 2025 = 628.3



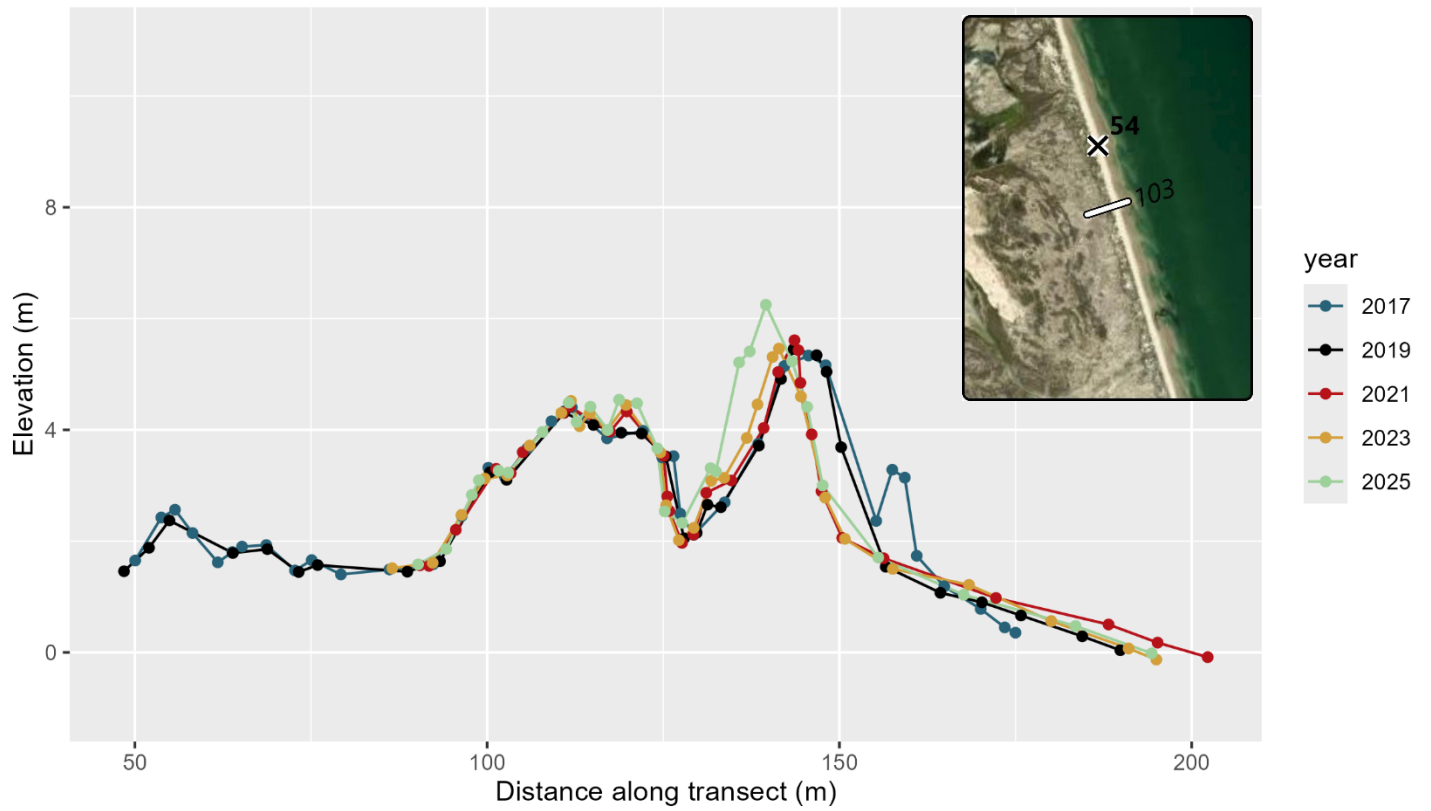
Transect 77: area 2017 = 489, area 2019 = 467.1, area 2021 = 440.7, area 2023 = 453, area 2025 = 470.4



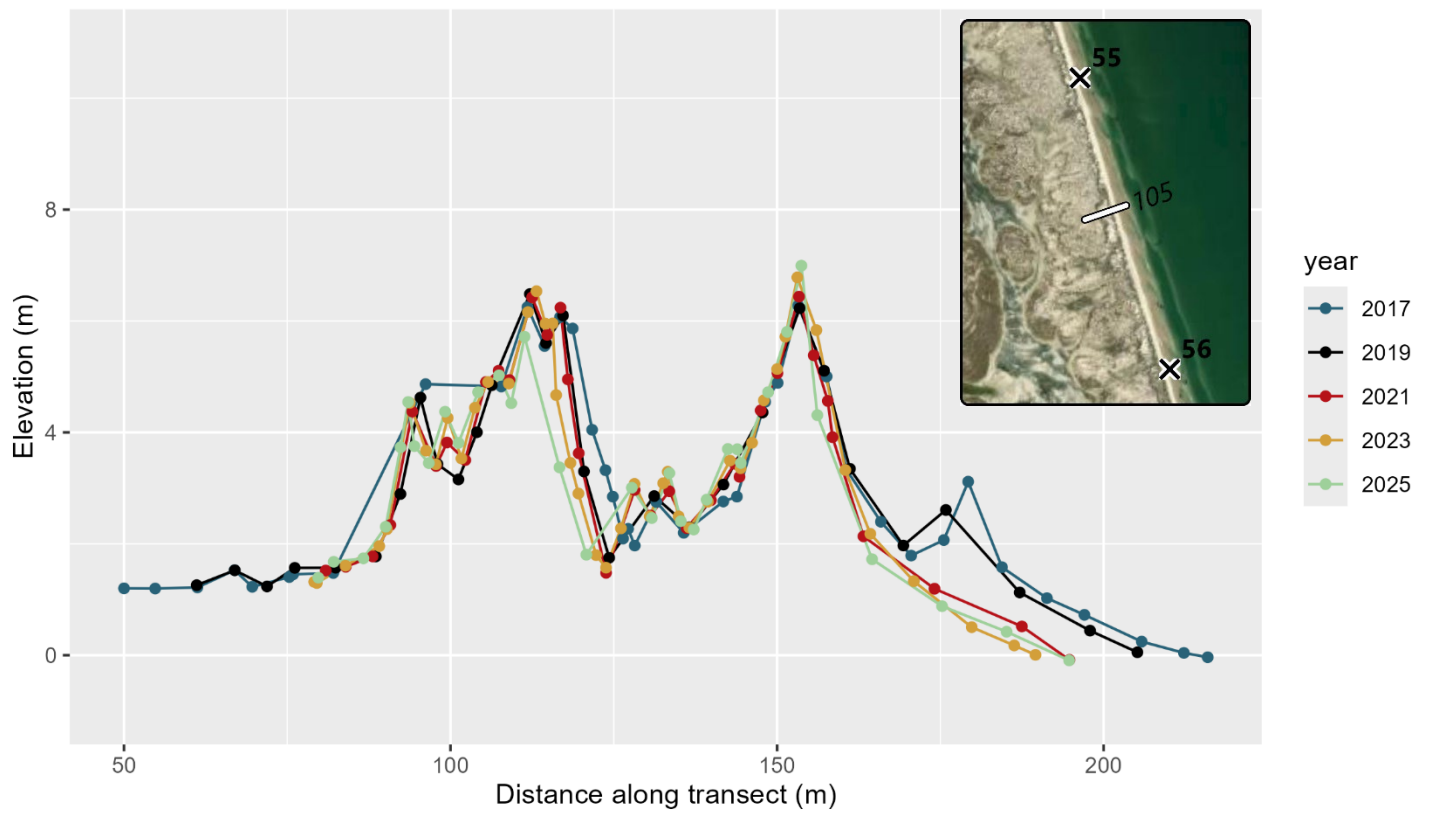
Transect 101: area 2017 = 267.7, area 2019 = 251.5, area 2021 = 225.3, area 2023 = 243, area 2025 = 245



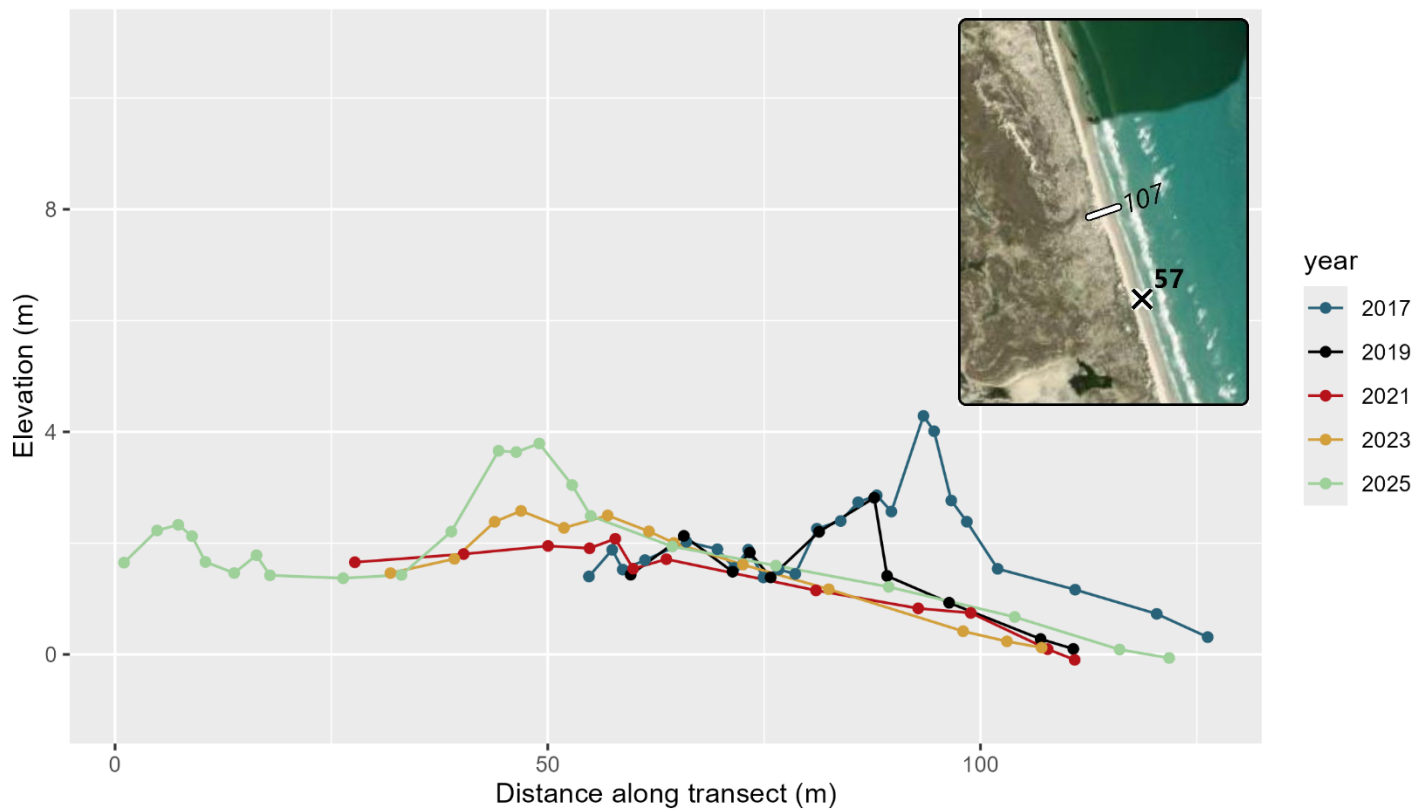
Transect 103: area 2017 = 260, area 2019 = 252.6, area 2021 = 252.1, area 2023 = 250.1, area 2025 = 266.1



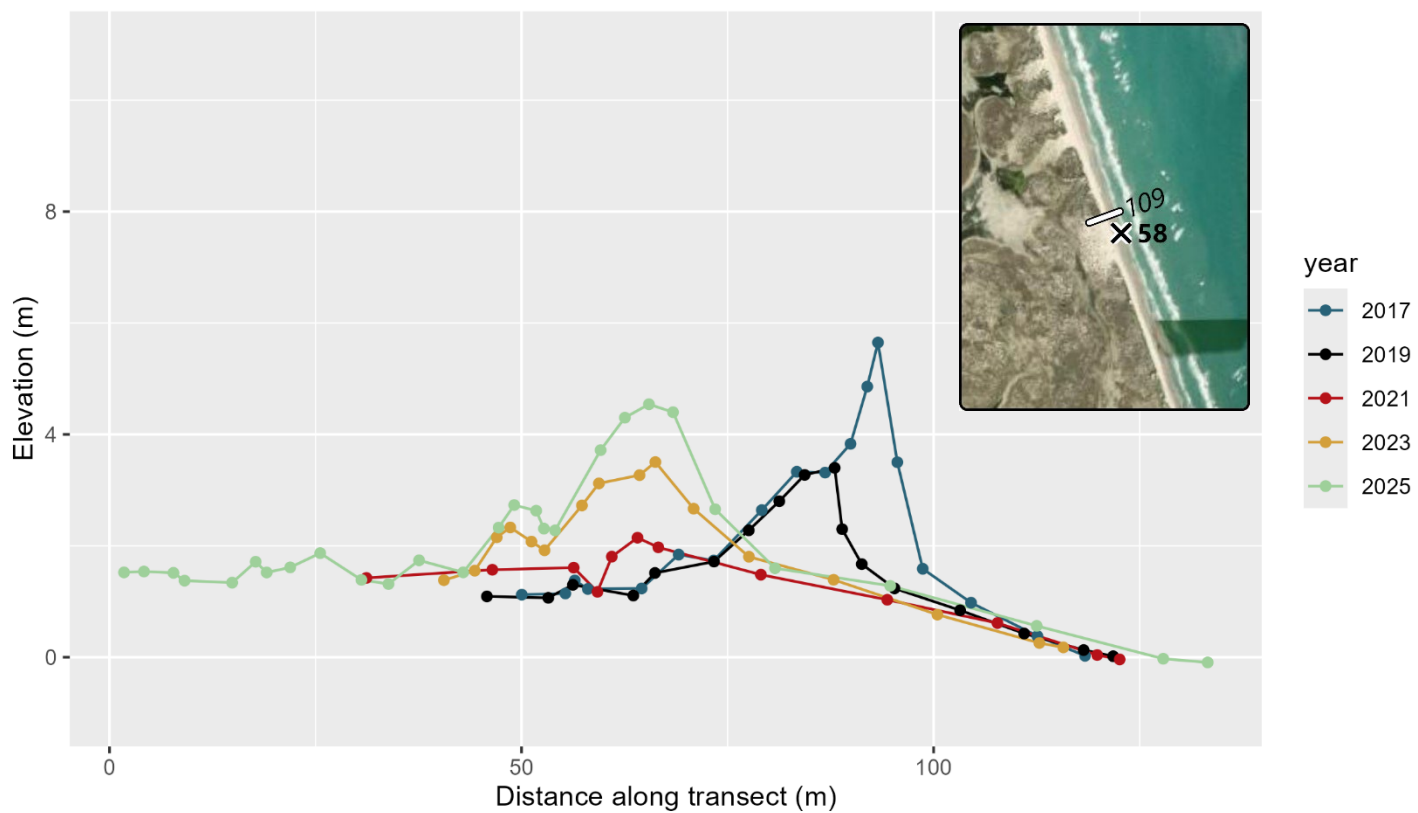
Transect 105: area 2017 = 393.4, area 2019 = 364.3, area 2021 = 330.8, area 2023 = 326.2, area 2025 = 313.8



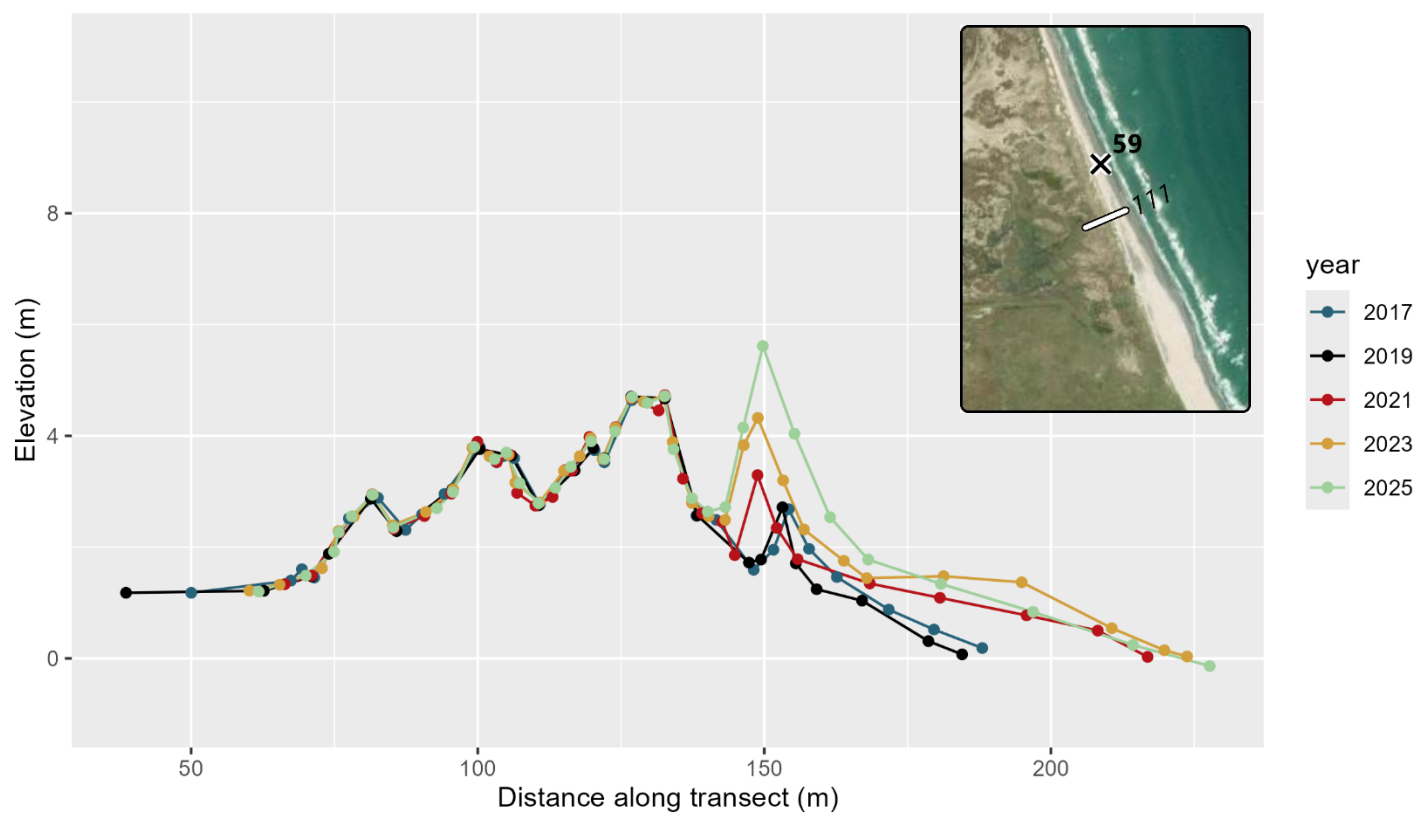
Transect 107: area 2017 = 120.1, area 2019 = 73, area 2021 = 51.6, area 2023 = 53.8, area 2025 = 67.9



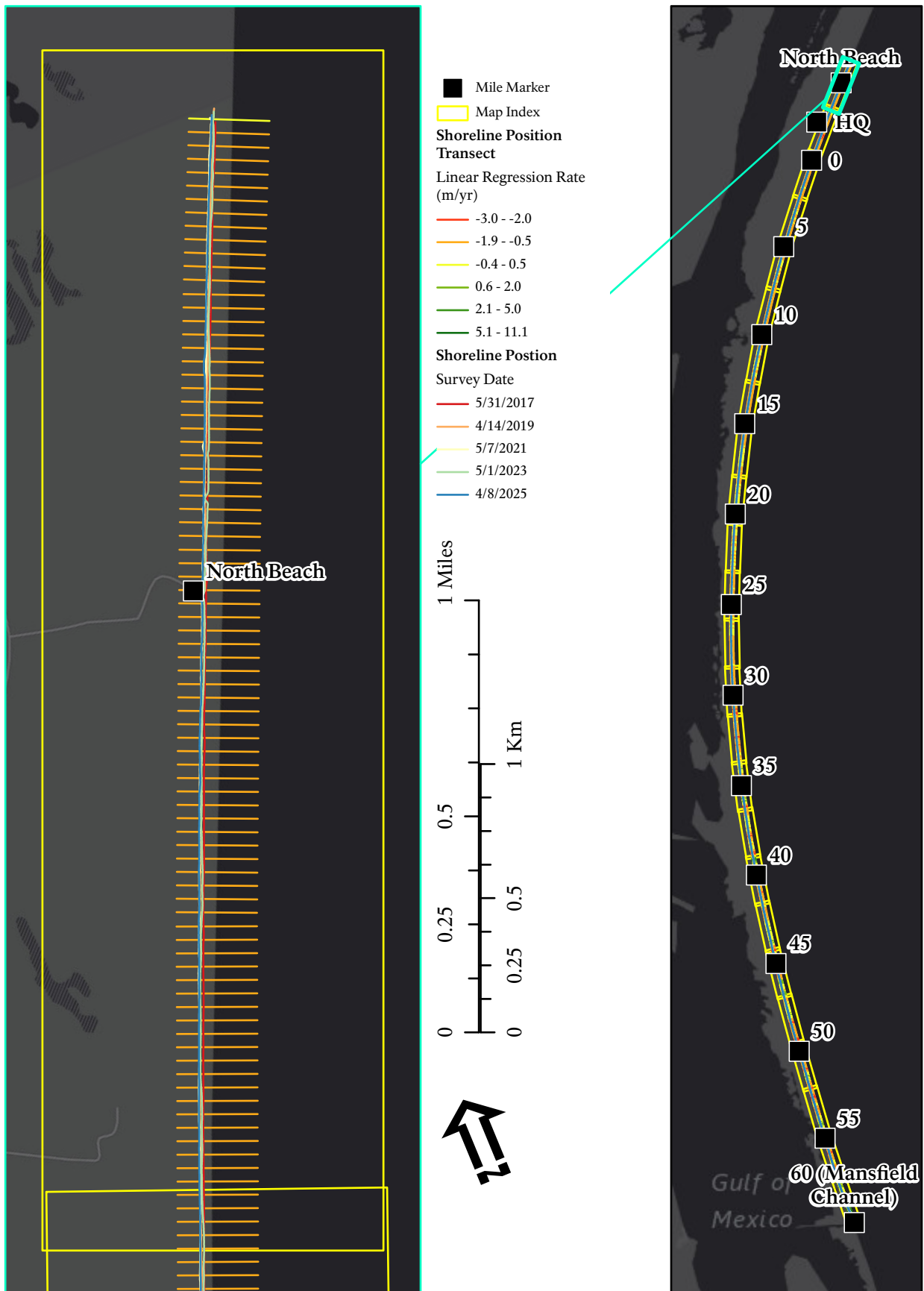
Transect 109: area 2017 = 128.4, area 2019 = 98.7, area 2021 = 83.8, area 2023 = 110.7, area 2025 = 138.2



Transect 111: area 2017 = 294.9, area 2019 = 283.9, area 2021 = 325.1, area 2023 = 362.6, area 2025 = 373.4

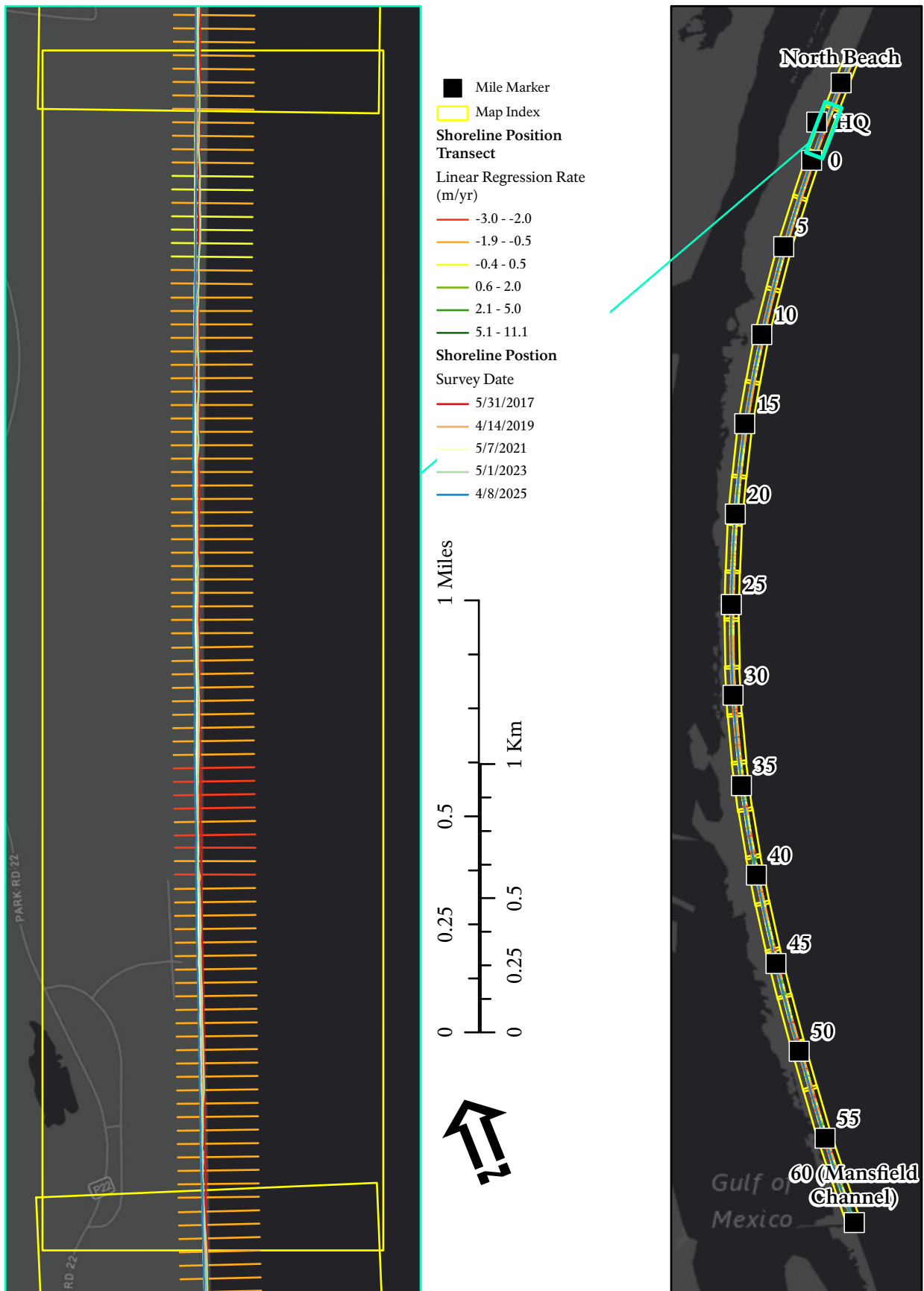


Supplemental Materials (SM 2): PAIS Shoreline Change Linear Regression Rate (LRR) 2017 to 2025



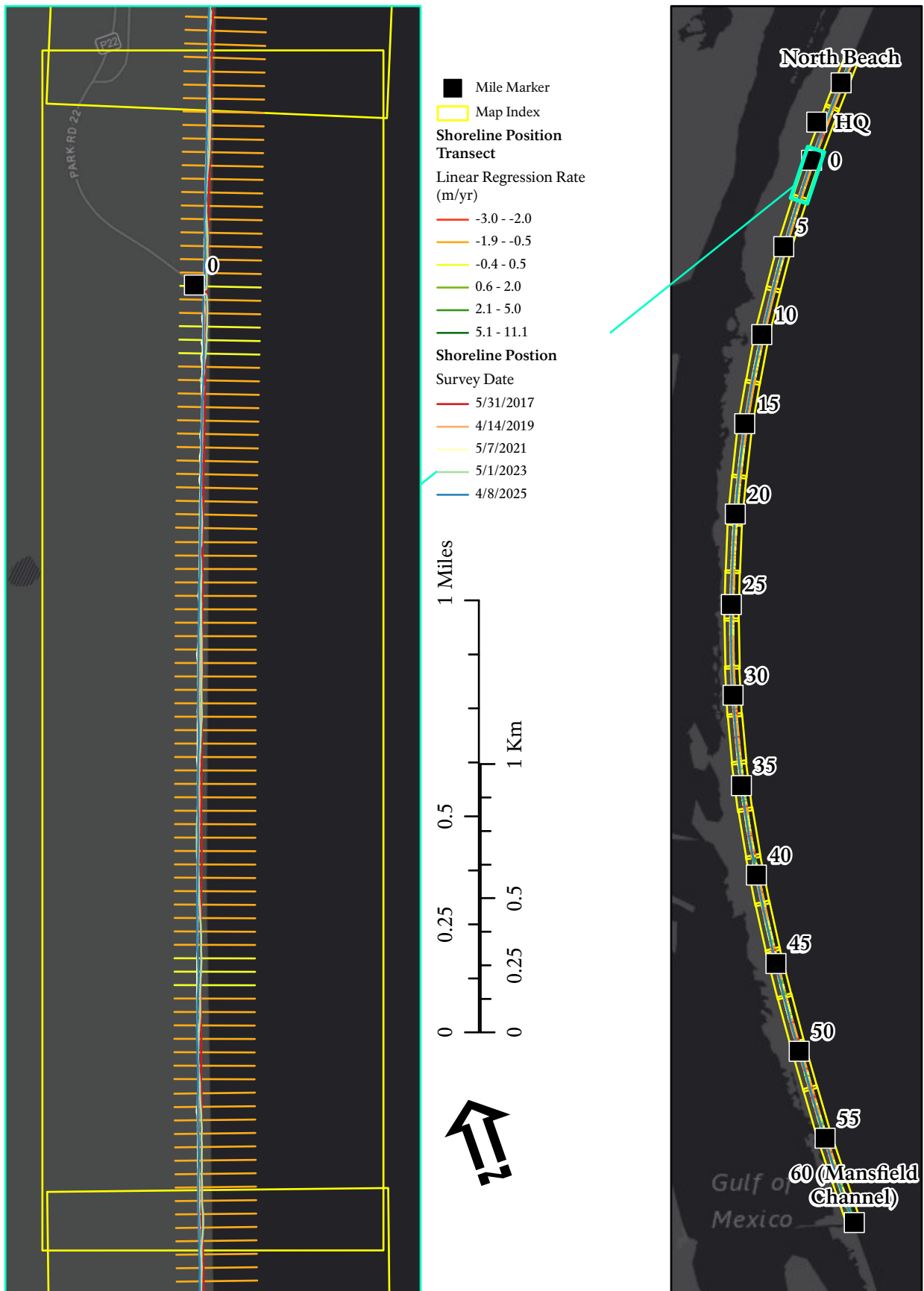
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Supplemental Materials (SM 2): PAIS Shoreline Change Linear Regression Rate (LRR) 2017 to 2025



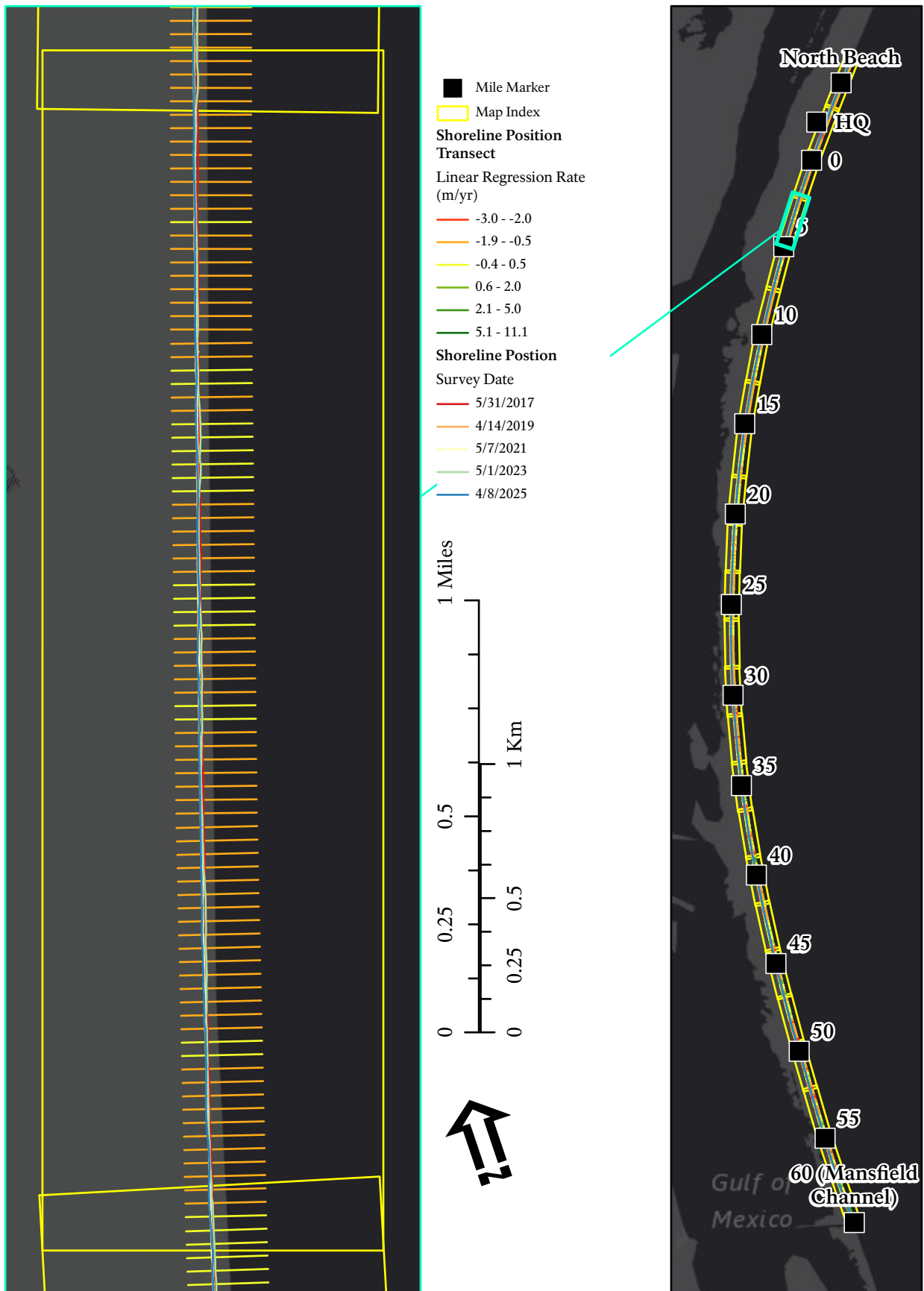
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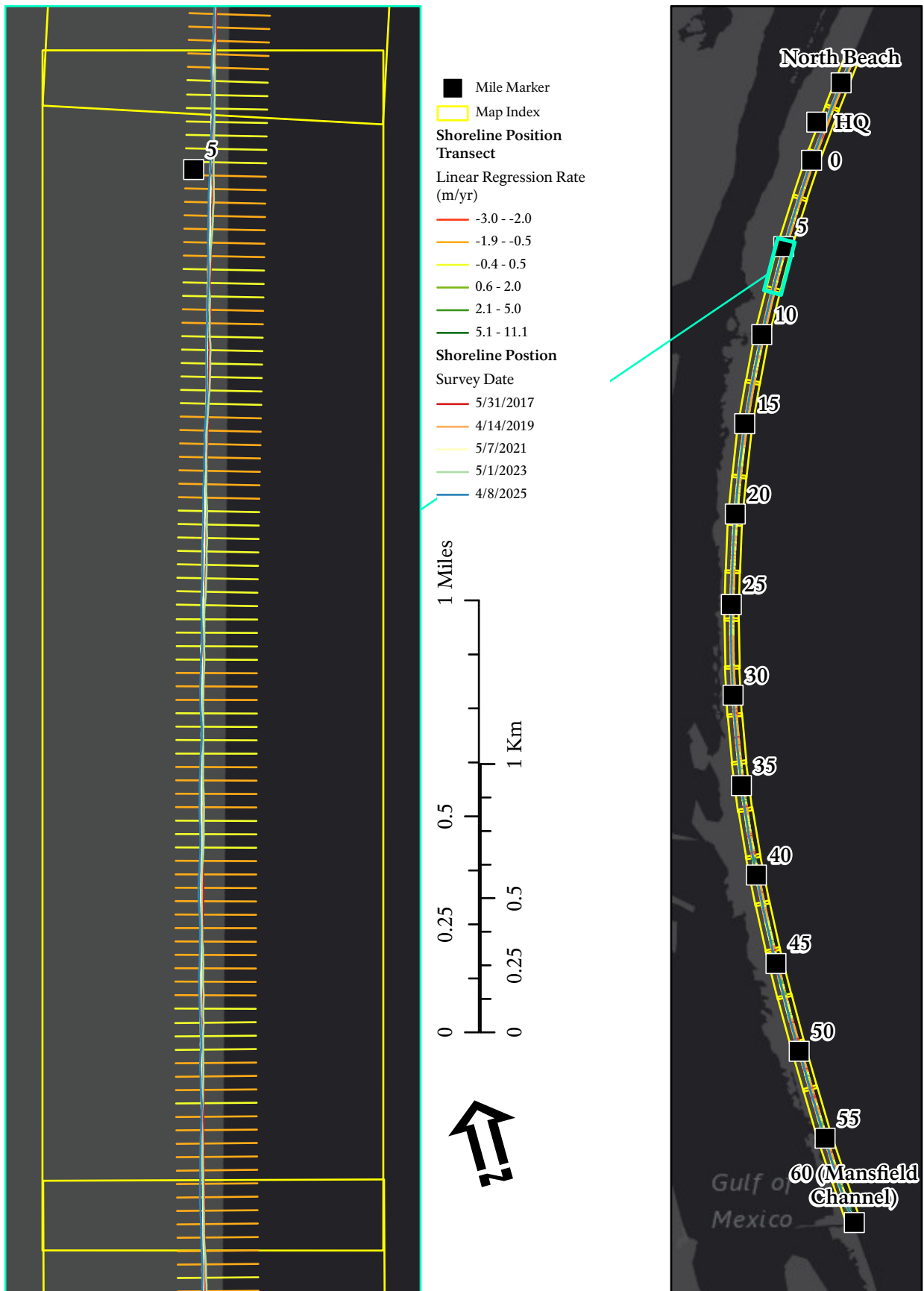
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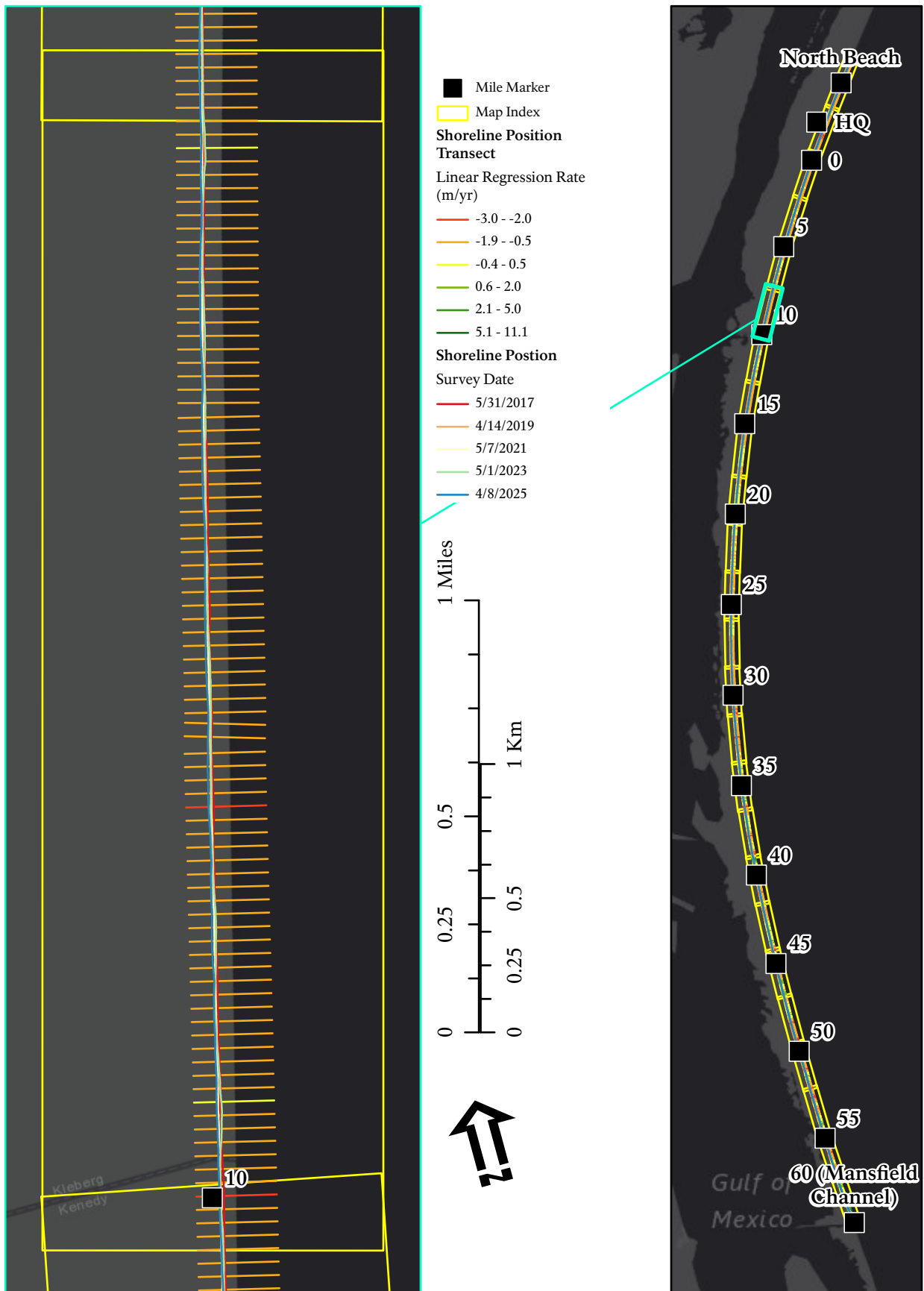
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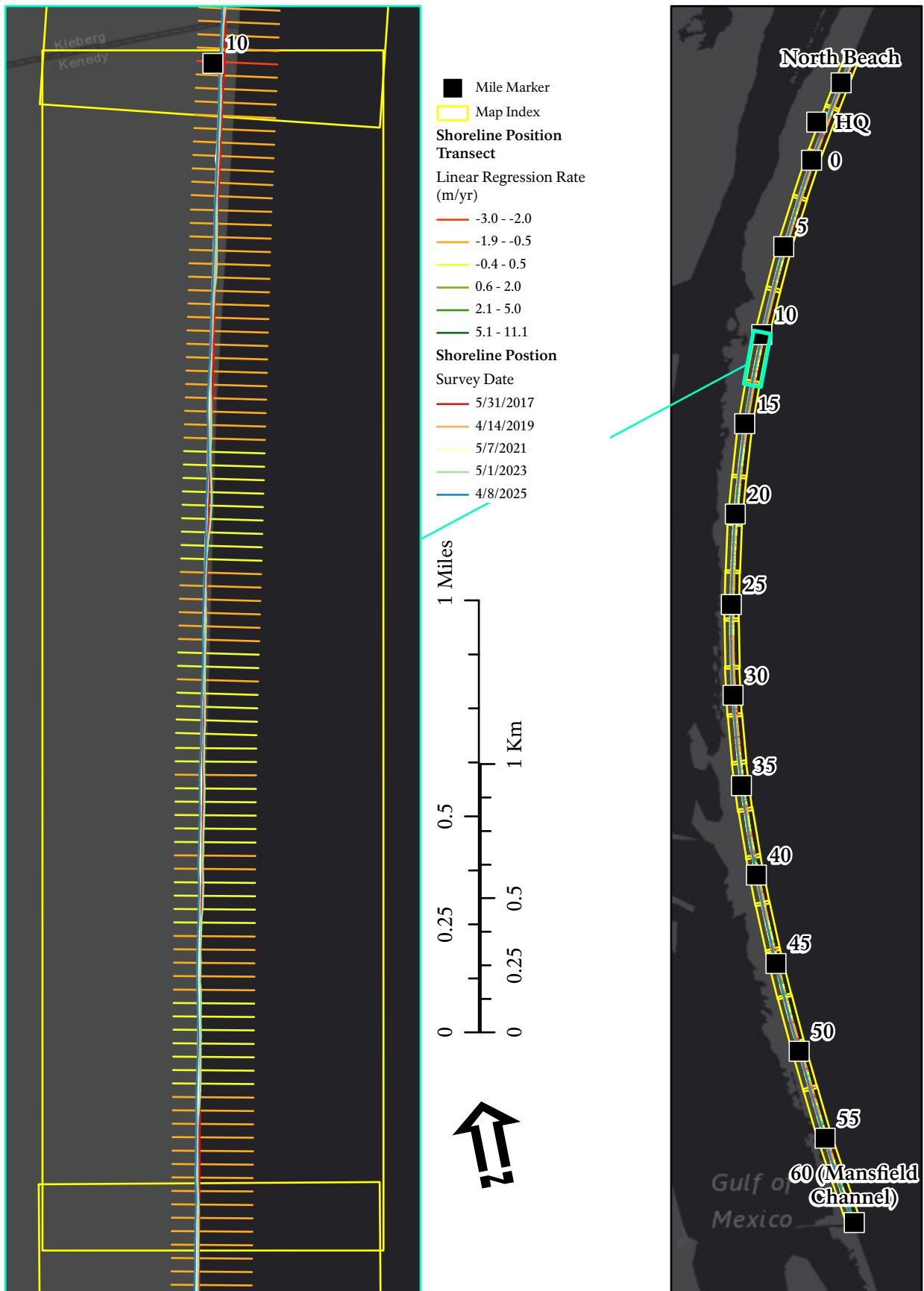
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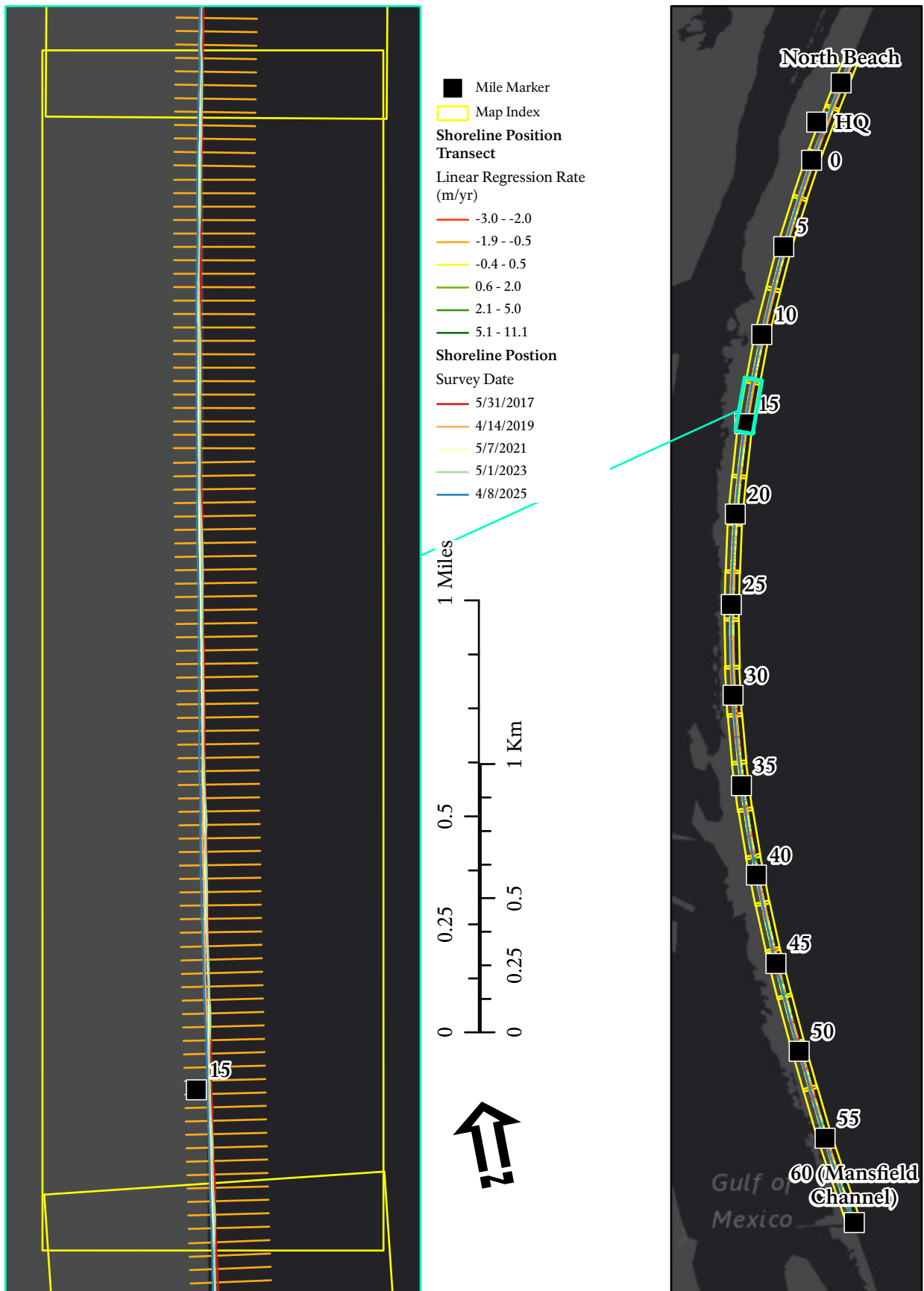
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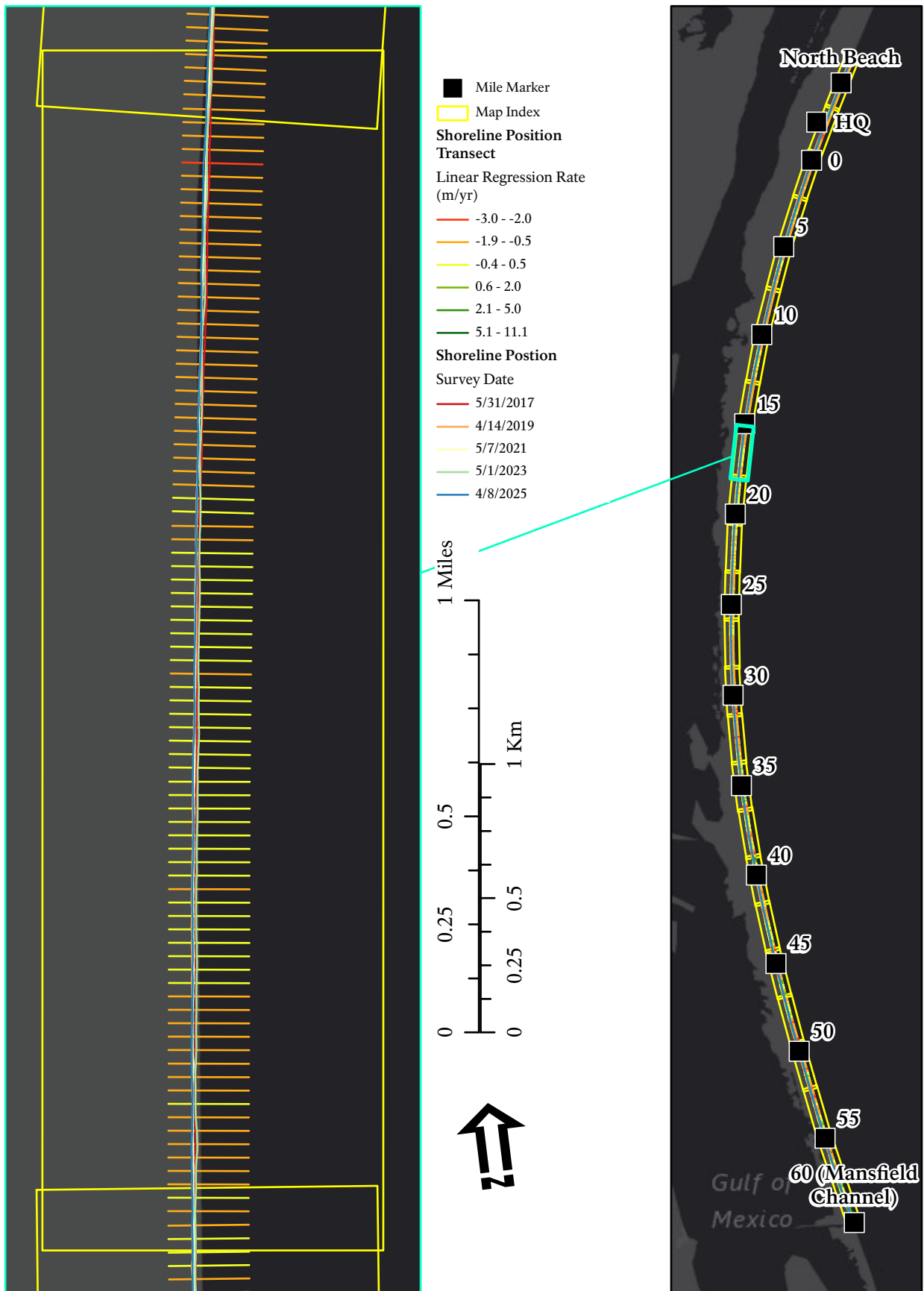
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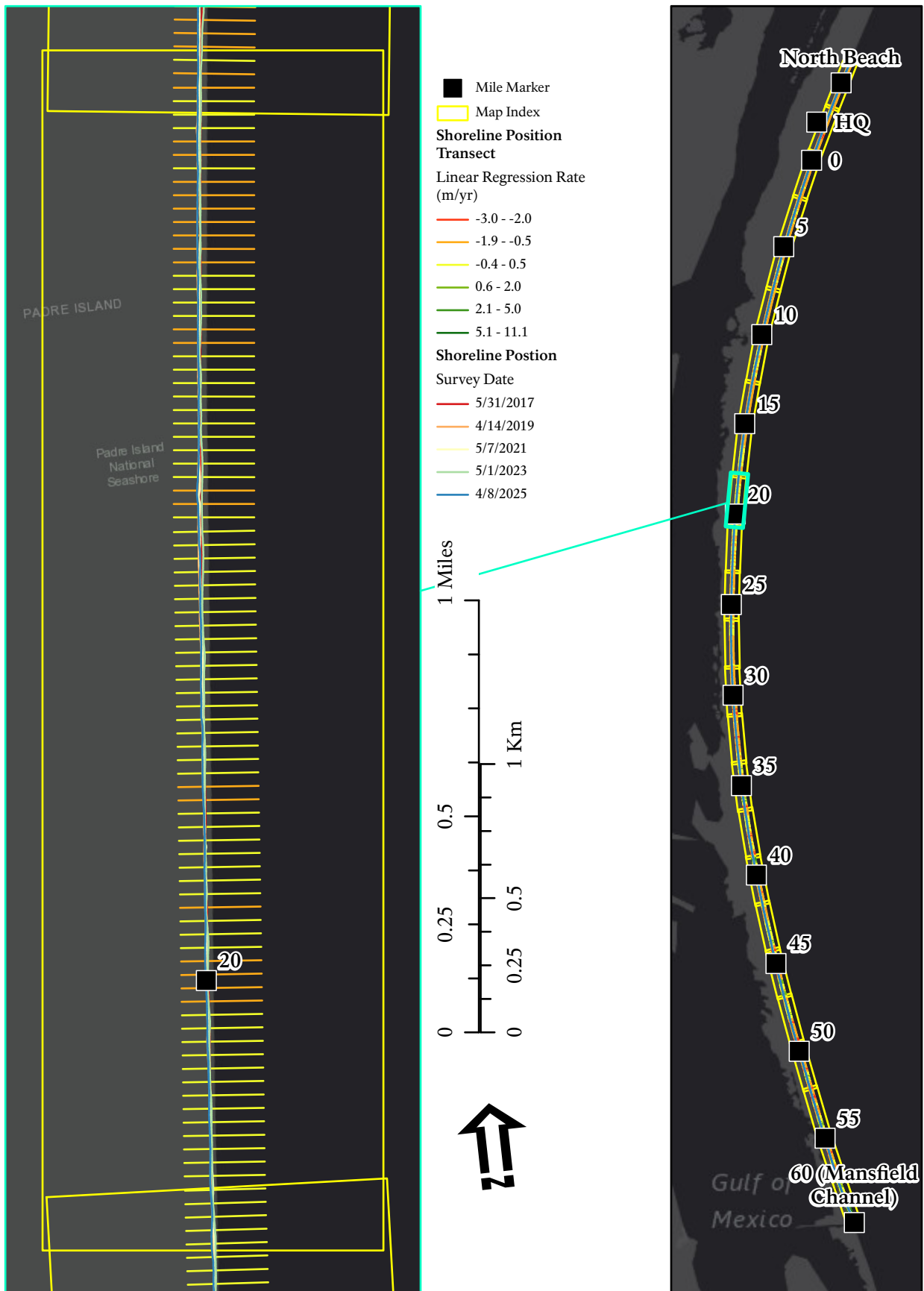
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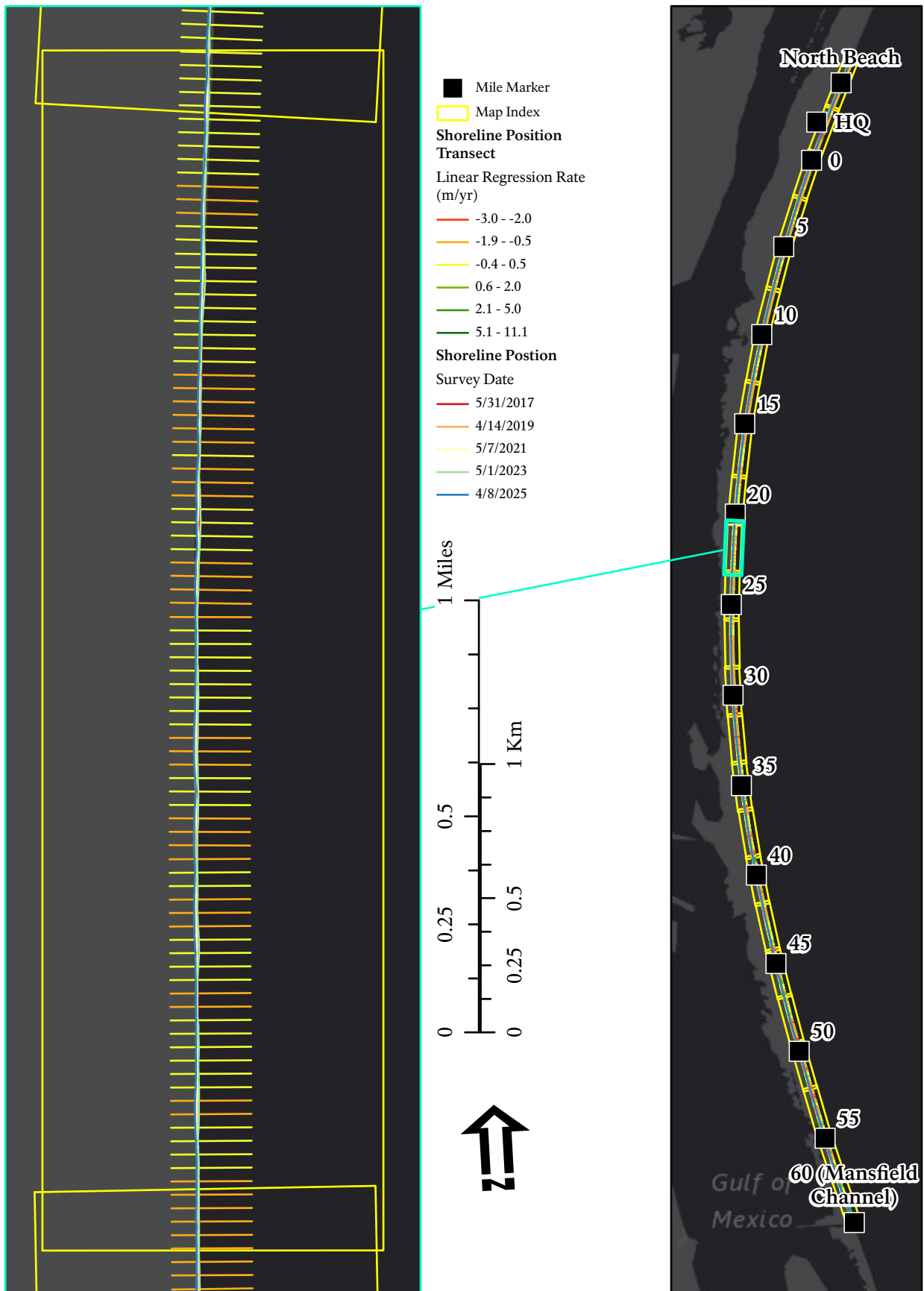
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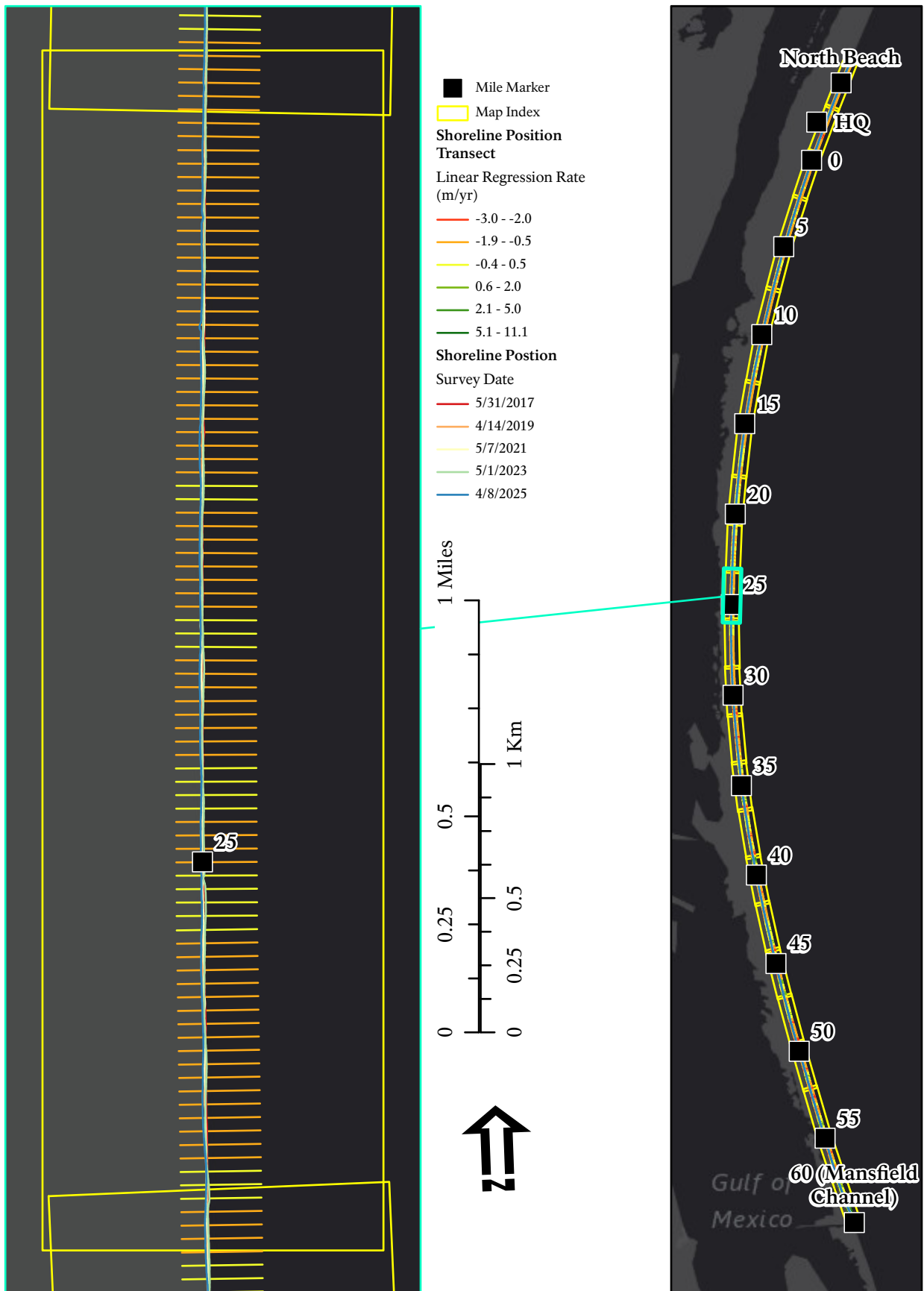
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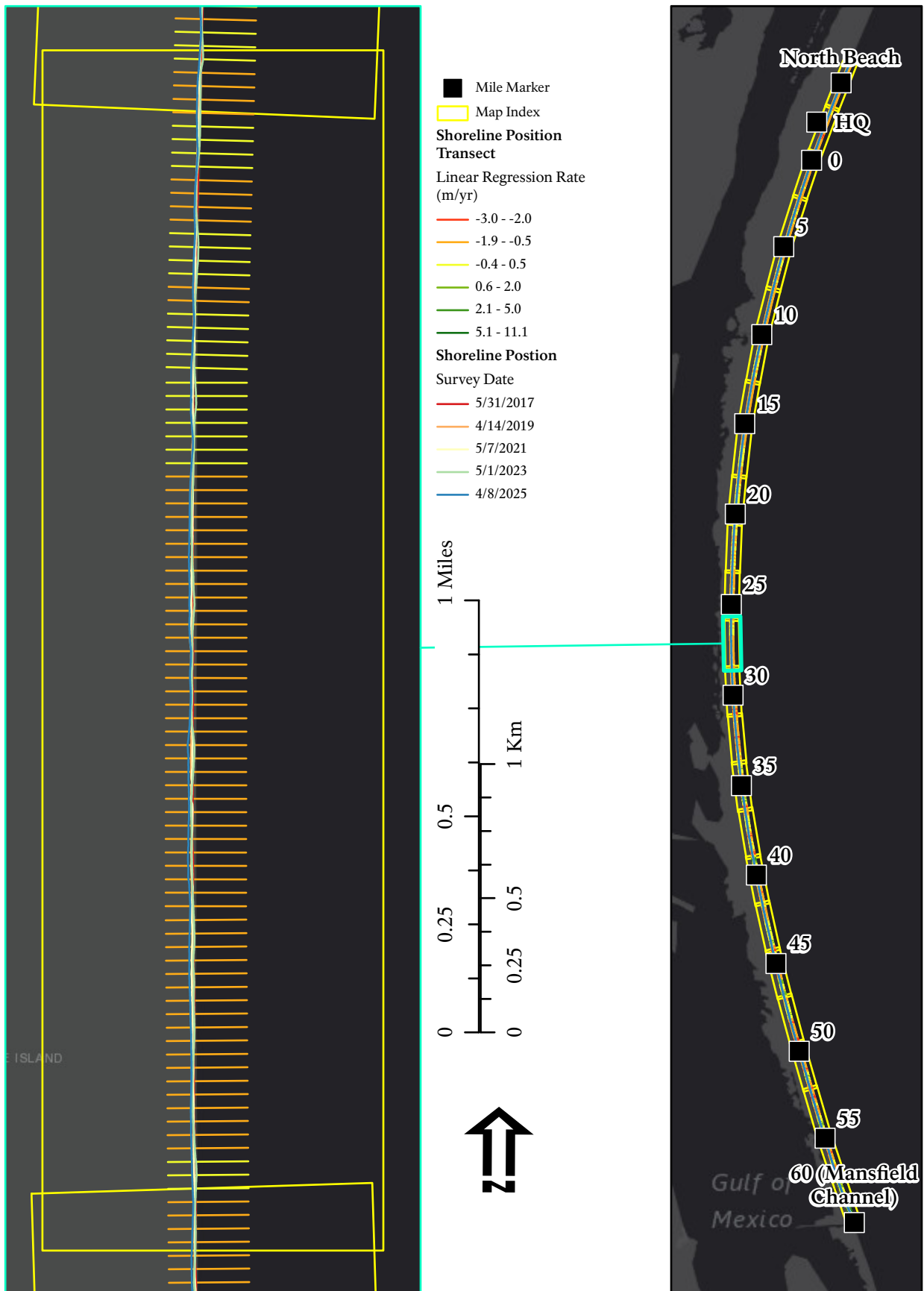
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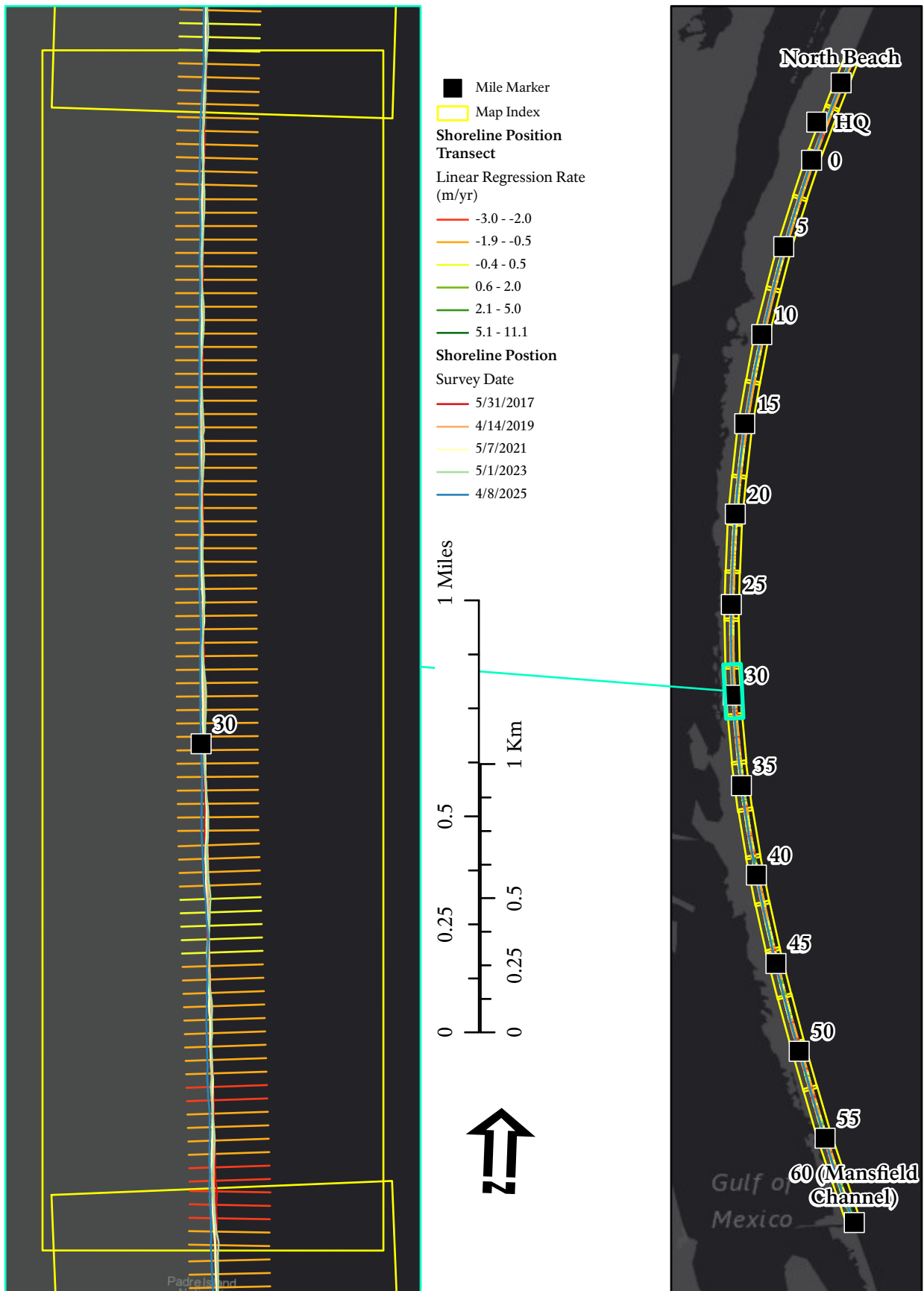
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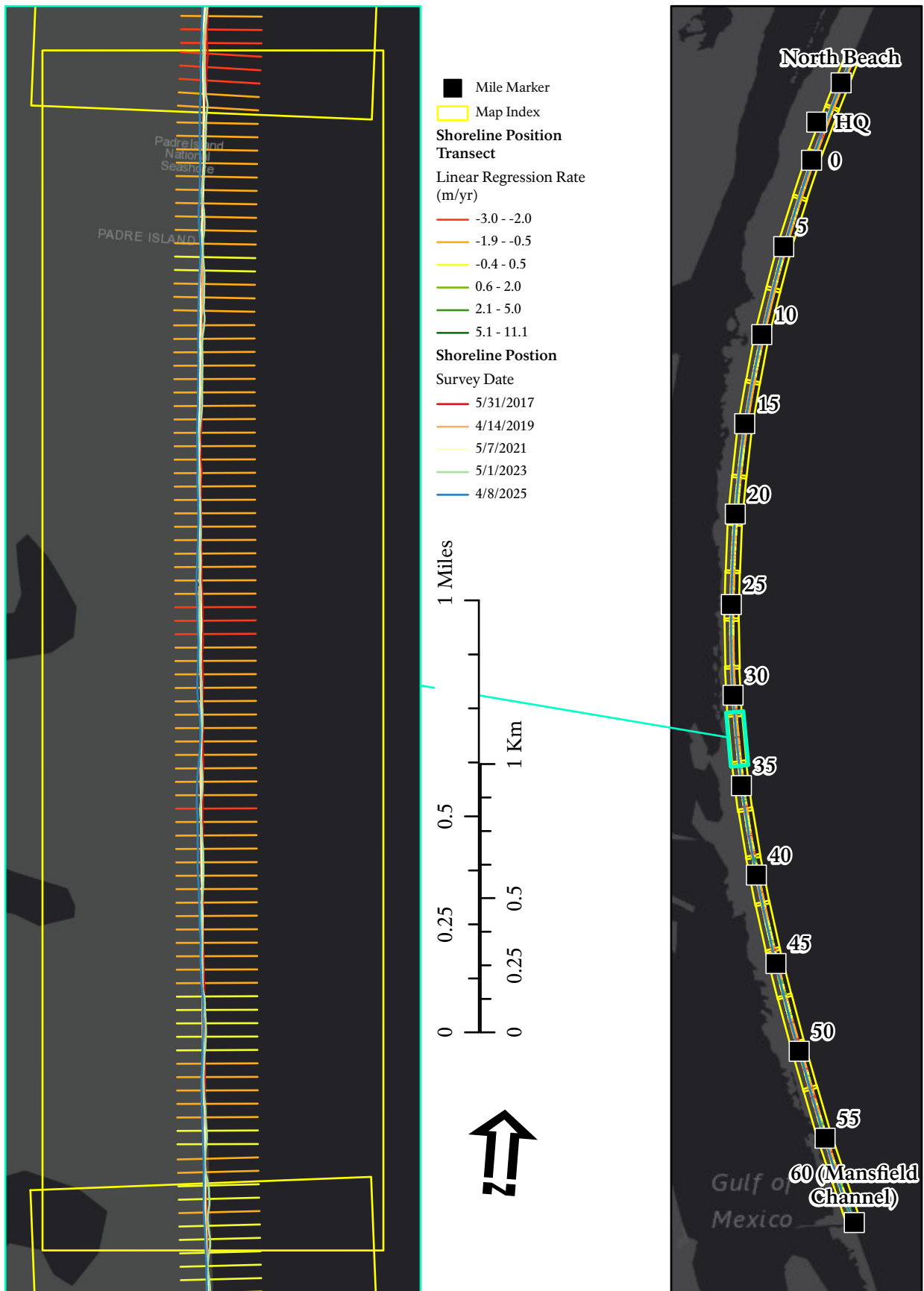
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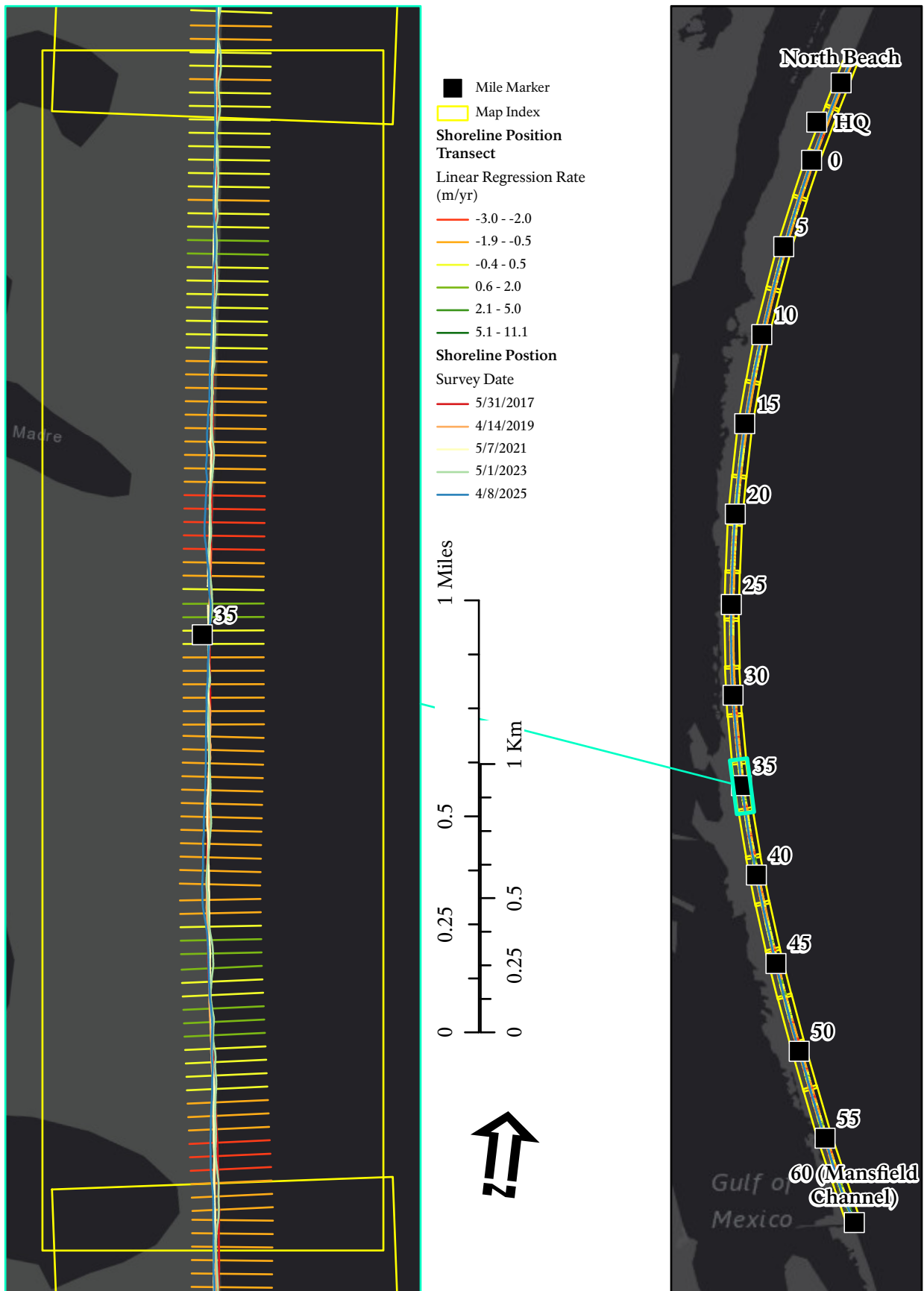
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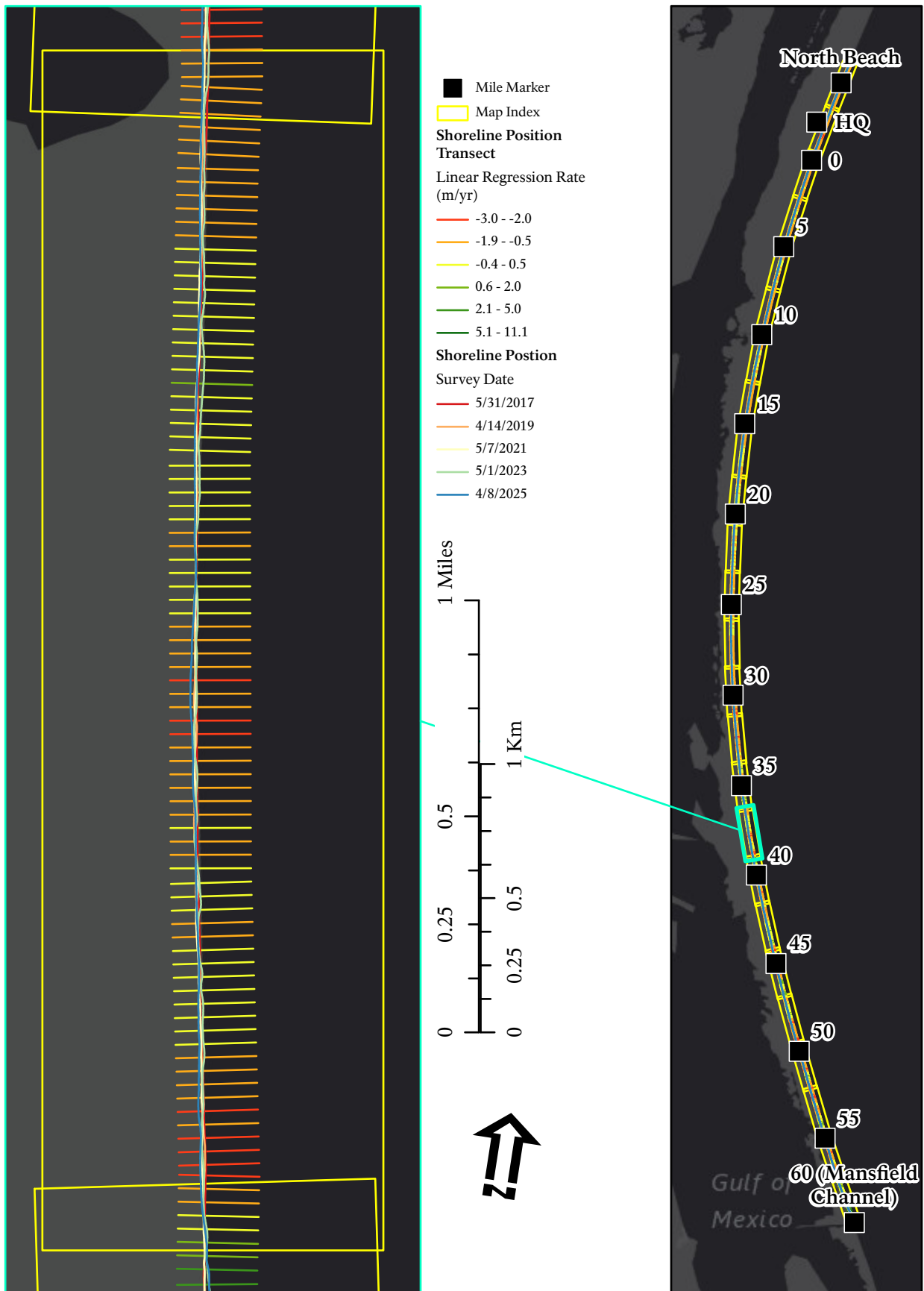
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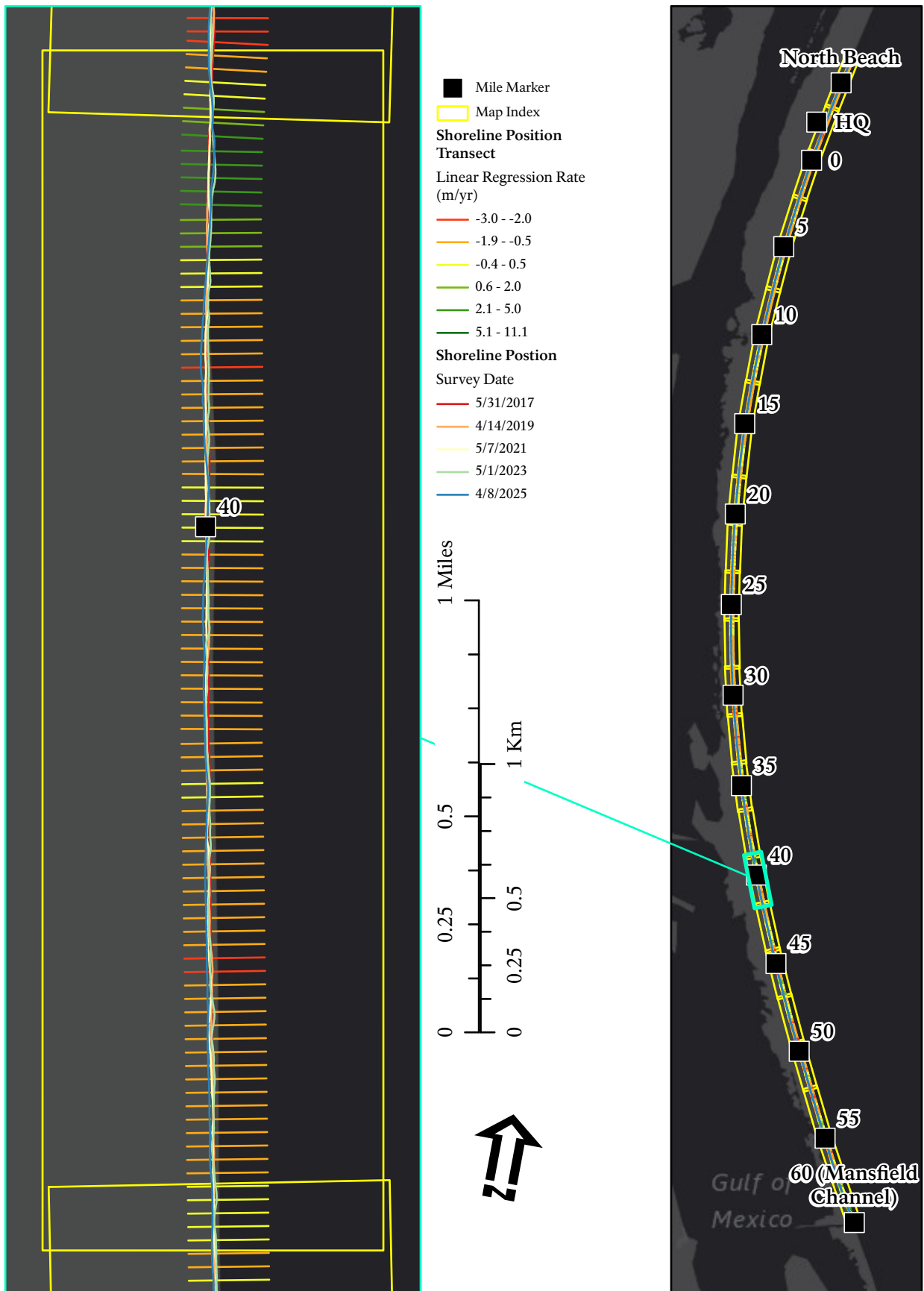
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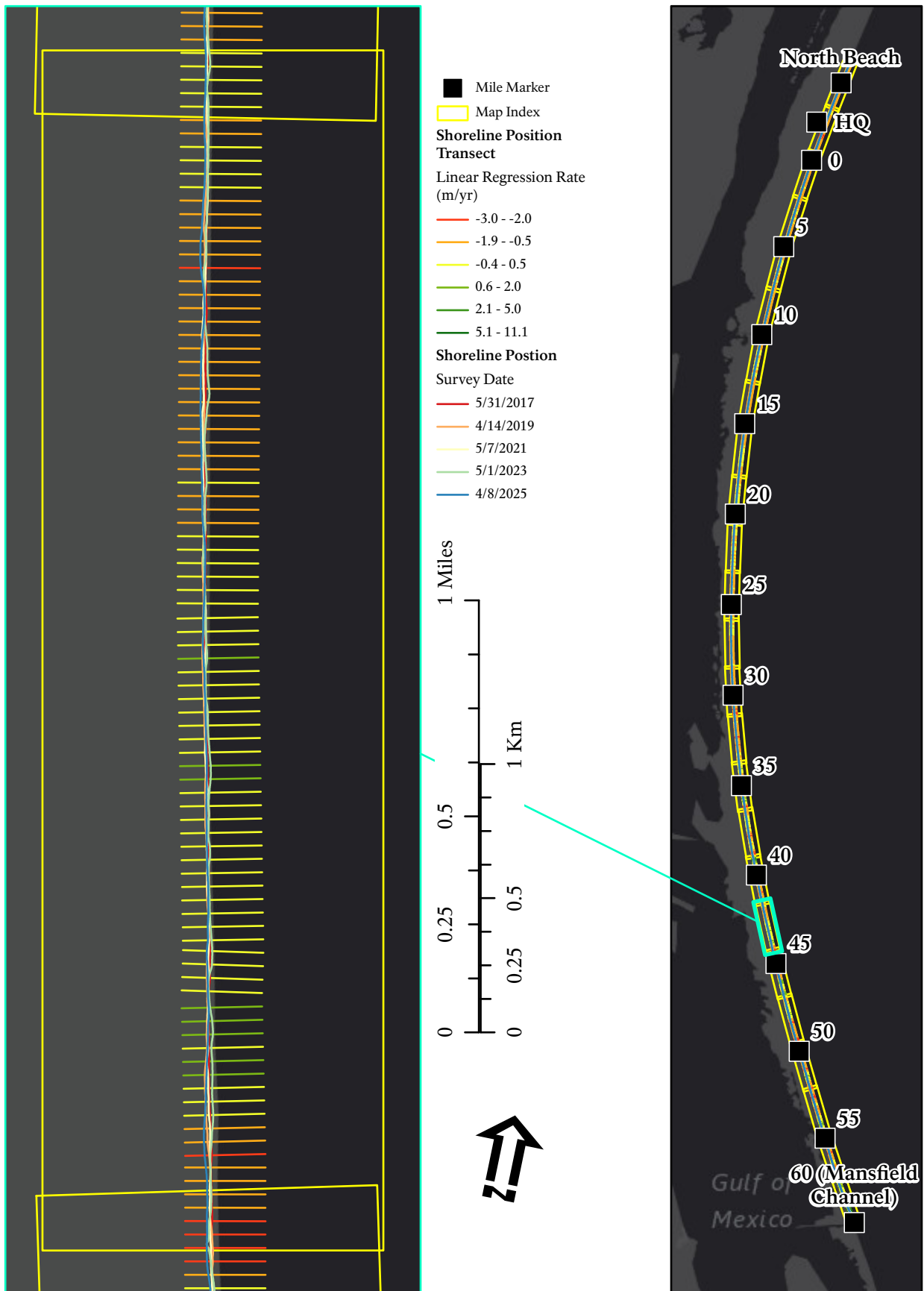
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Supplemental Materials (SM 2): PAIS Shoreline Change Linear Regression Rate (LRR) 2017 to 2025



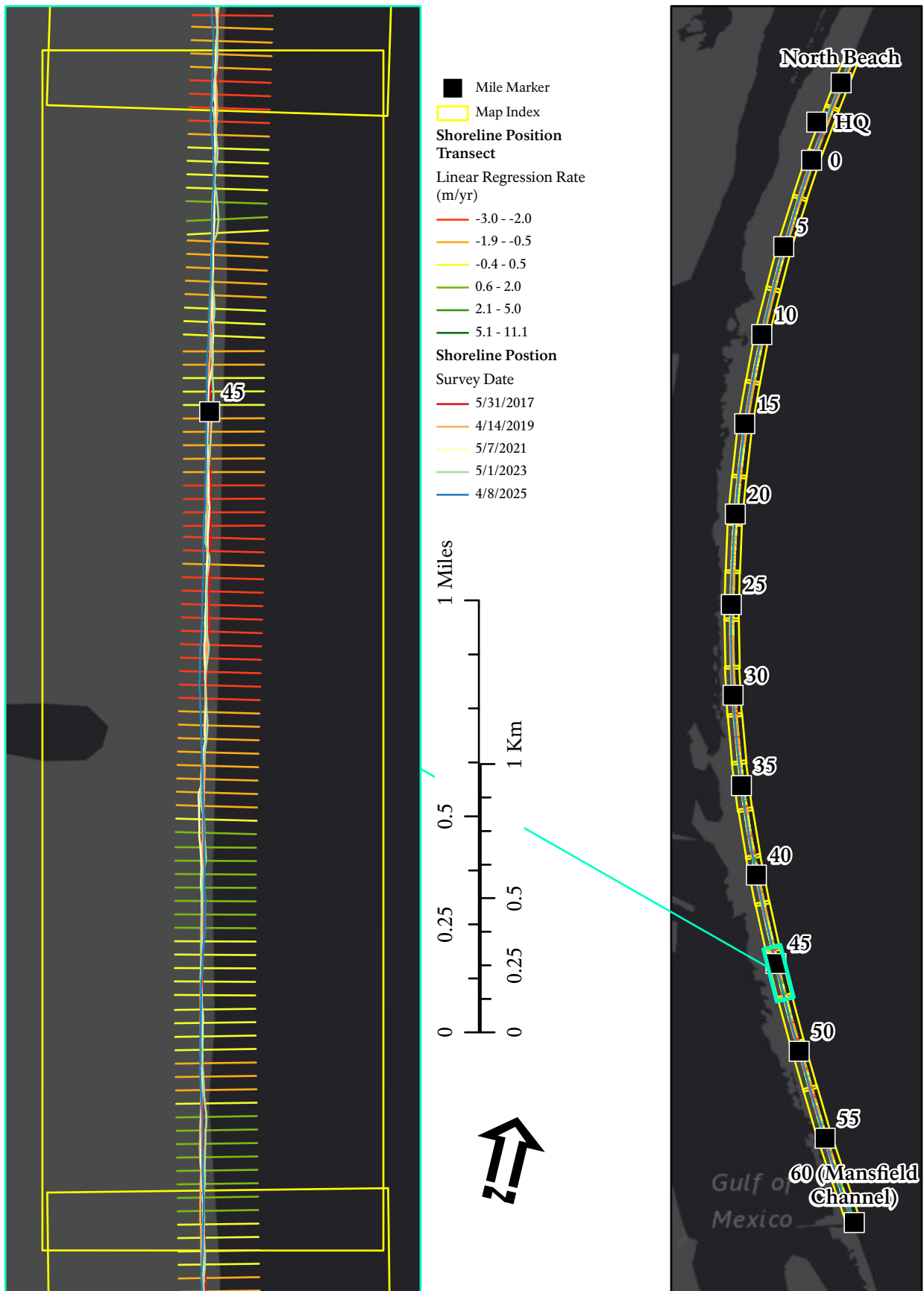
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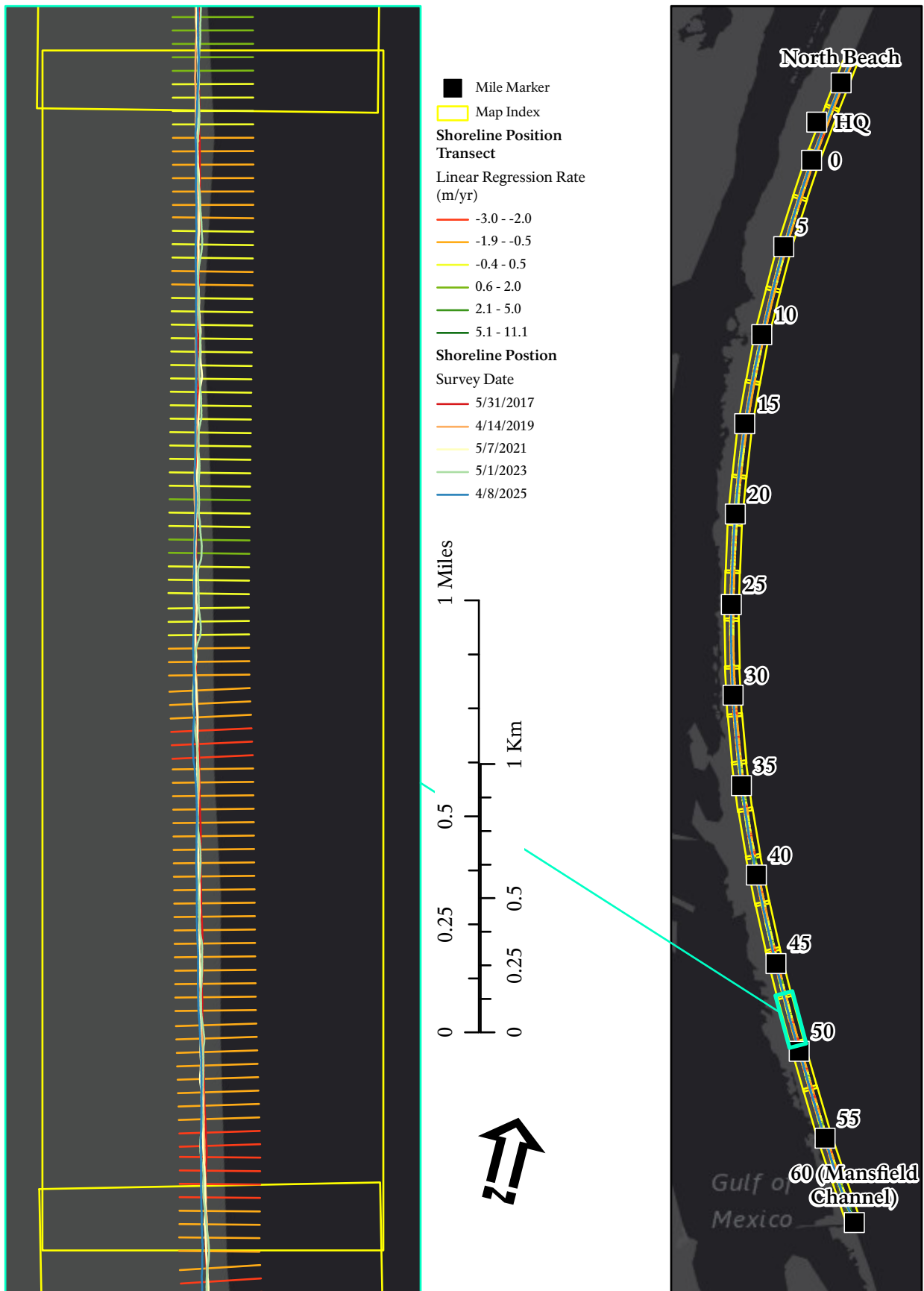
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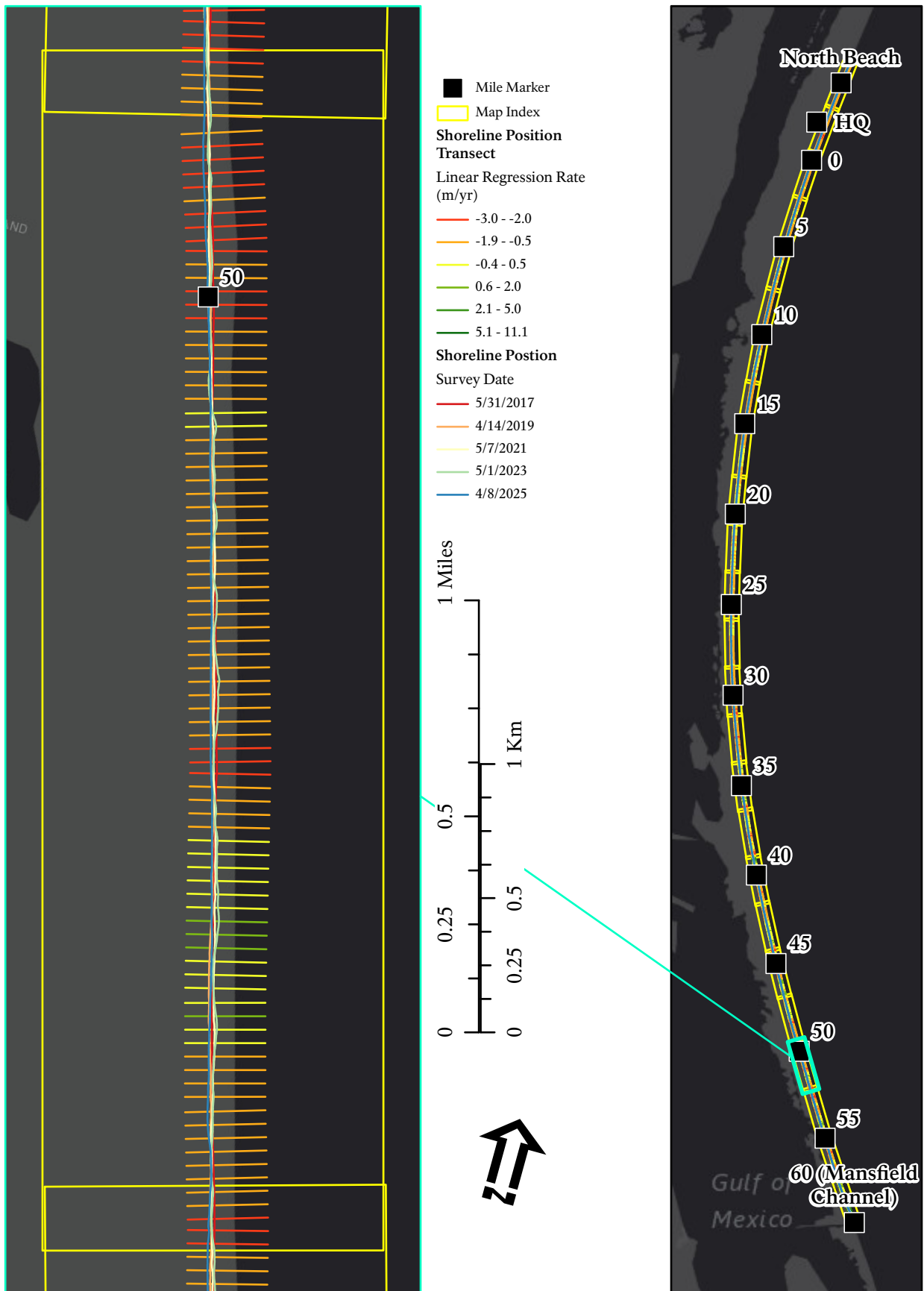
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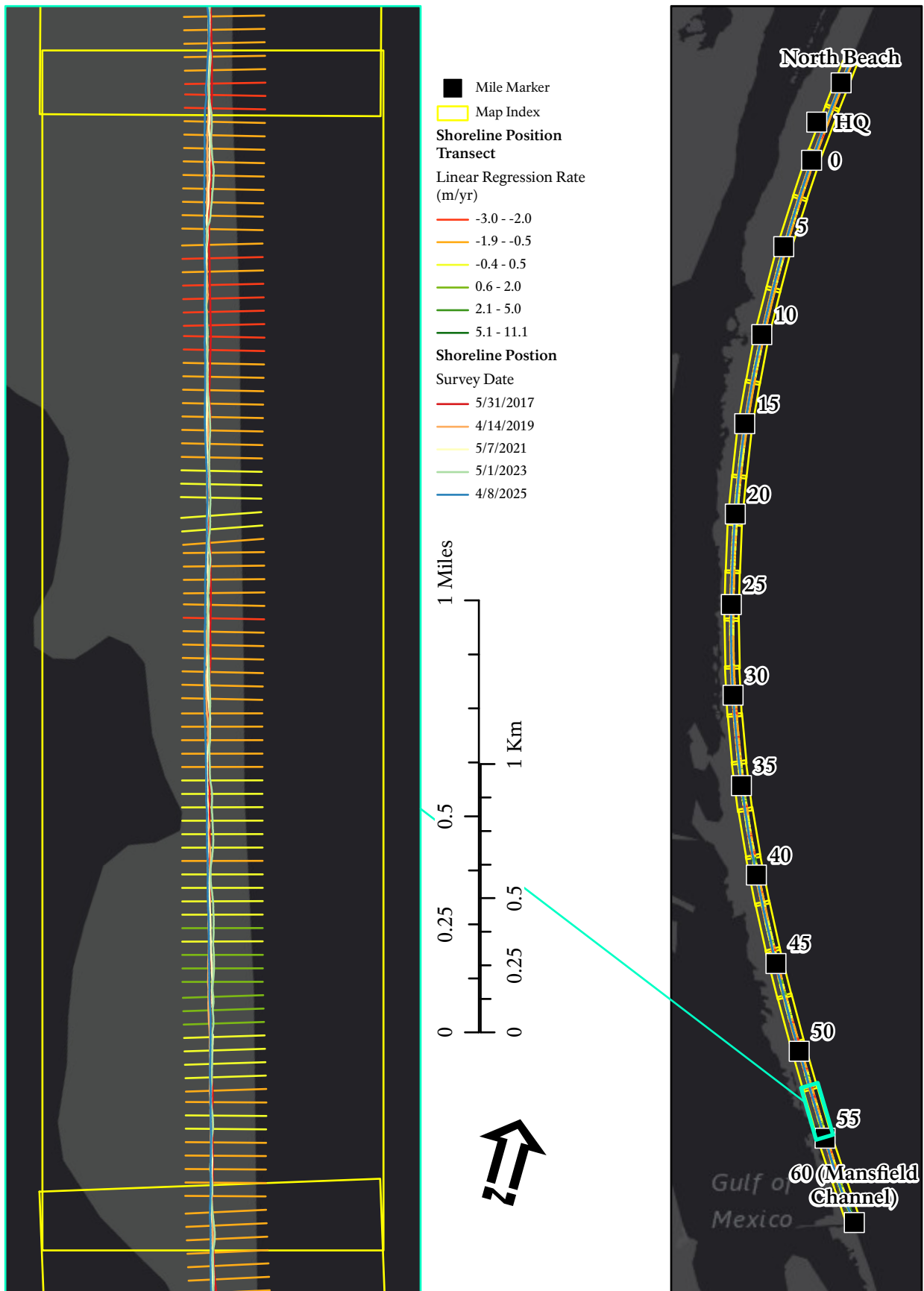
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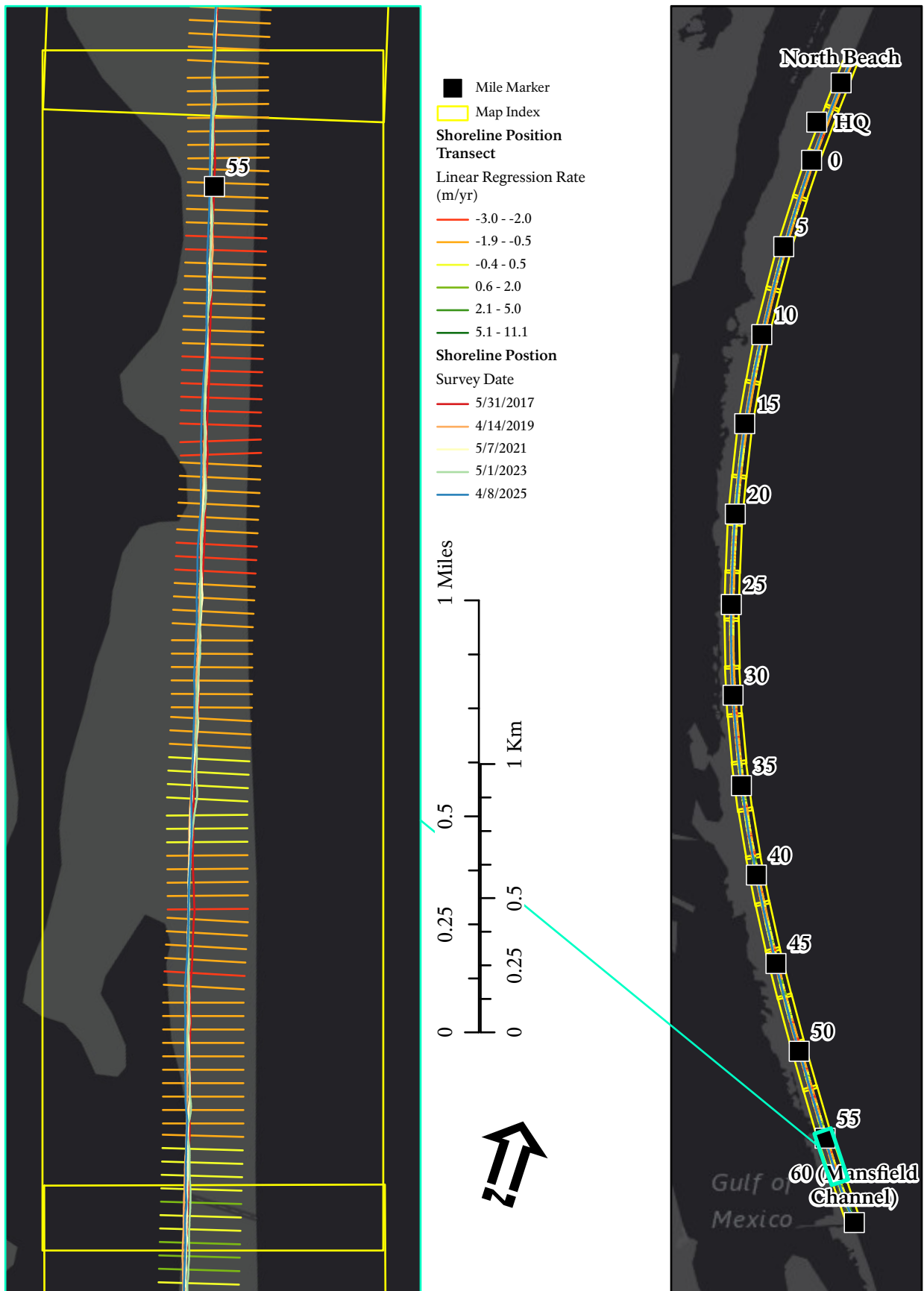
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Supplemental Materials (SM 2): PAIS Shoreline Change Linear Regression Rate (LRR) 2017 to 2025



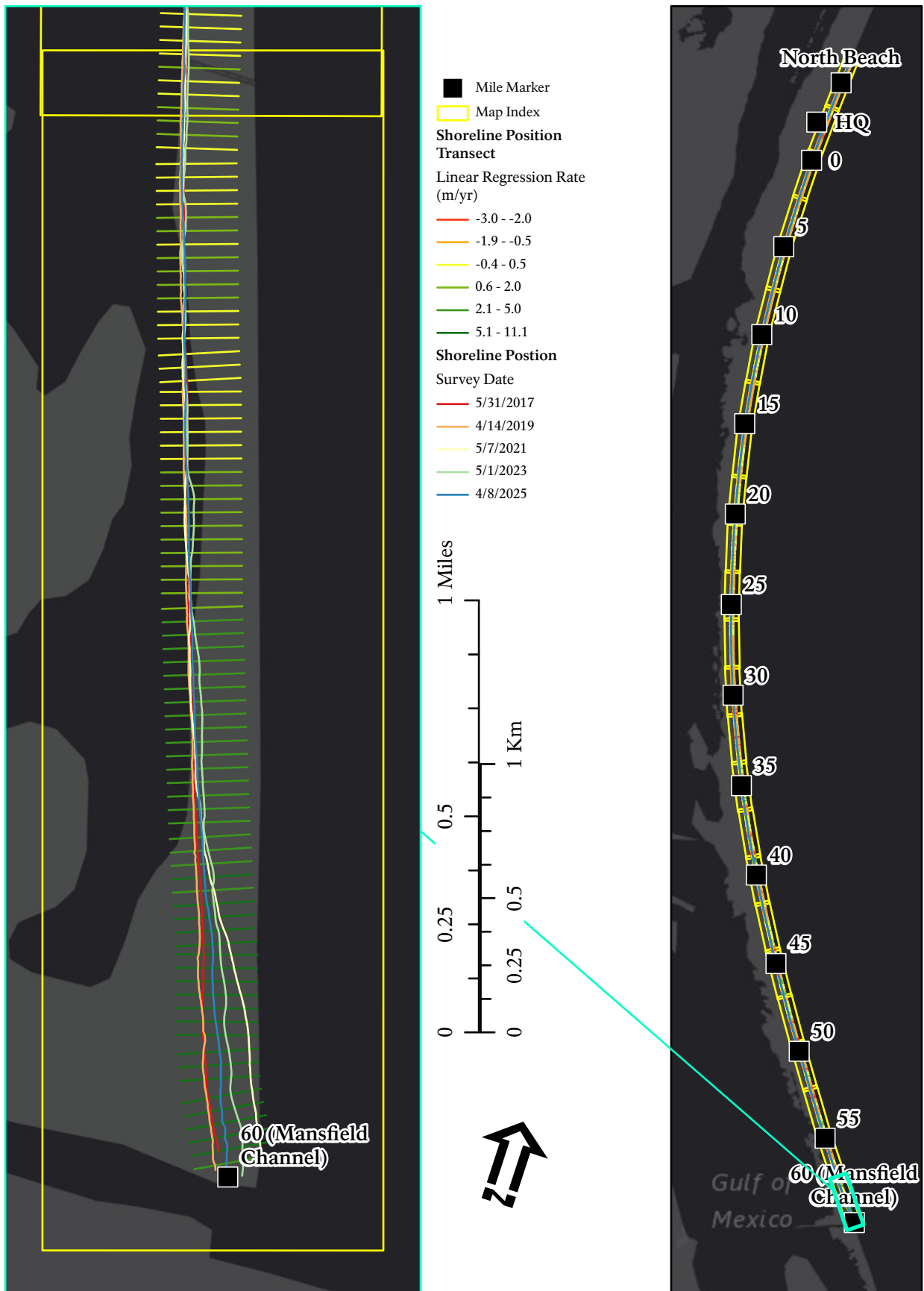
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Supplemental Materials (SM 2): PAIS Shoreline Change Linear Regression Rate (LRR) 2017 to 2025



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Supplemental Materials (SM 2): PAIS Shoreline Change Linear Regression Rate (LRR) 2017 to 2025



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Supplemental Materials (SM 3)

National Park Service Gulf Coast Inventory and Monitoring Network topography monitoring profile statistics for Padre Island National Seashore. This document is part of the report: "Coastal Dynamics Monitoring at Padre Island National Seashore, Texas: 2017-2025" by Jeff Bracewell and Jane Carlson.

Dune Crest Elevation

Type III Analysis of Variance Table with Satterthwaite's method

	Sum Sq	Mean Sq	NumD F	DenDF	F value	Pr(>F)	
time_step	3.0798	3.07977	1	85	15.4555	0.000171	***
sector	5.2571	0.87619	6	85.006	4.397	0.000644	***
time_step:sector	5.2789	0.87982	6	85	4.4153	0.000622	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

sector	time_step.trend	SE	df	lower.C L	upper.C L
closed beach	0.0129	0.0316	85	-0.0499	0.0757
sector 8	0.0268	0.0407	85	-0.0542	0.1079
sector 18*	0.143	0.0407	85	0.062	0.224
sector 28*	0.1953	0.0407	85	0.1143	0.2764
sector 38	0.0288	0.0407	85	-0.0522	0.1099
port mansfield (54)	0.0597	0.0407	85	-0.0214	0.1407
port mansfield (58)	-0.055	0.0407	85	-0.136	0.026

Distance to Dune Crest

Type III Analysis of Variance Table with Satterthwaite's method

	Sum Sq	Mean Sq	NumD F	DenDF	F value	Pr(>F)	
time_step	223.68	223.68	1	85.002	11.936	0.0008614	***
sector	1210.96	201.83	6	85.158	10.77	6.96E-09	***
time_step:sector	1241.16	206.86	6	85.002	11.038	4.57E-09	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

sector	time_step.trend	SE	df	lower.C L	upper.C L
closed beach	0.037	0.306	85	-0.572	0.646
sector 8	0.508	0.395	85	-0.277	1.294
sector 18	-0.561	0.395	85	-1.347	0.225
sector 28	-0.054	0.395	85	-0.84	0.732
sector 38	0.182	0.395	85	-0.604	0.967
port mansfield (54)	-0.267	0.395	85	-1.052	0.519
port mansfield (58)*	-3.353	0.395	85	-4.139	-2.567

Profile Area

Type III Analysis of Variance Table with Satterthwaite's method

	Sum Sq	Mean Sq	NumD F	DenDF	F value	Pr(>F)	
time_step	3109.4	3109.4	1	84.998	11.9125	0.0008709	***
sector	3833.2	638.87	6	85.055	2.4476	0.0312528	*
time_step:sector	3816.9	636.14	6	84.997	2.4371	0.0319069	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

sector	time_step.trend	SE	df	lower.C L	upper.C L
closed beach*	-3.119	1.14	85	-5.39	-0.848
sector 8*	-3.588	1.47	85	-6.521	-0.656
sector 18	-1.748	1.47	85	-4.681	1.184
sector 28	-2.763	1.47	85	-5.696	0.169
sector 38	-0.228	1.47	85	-3.161	2.704
port mansfield (54)*	-4.025	1.47	85	-6.957	-1.093
port mansfield (58)	2.395	1.47	85	-0.537	5.327

Distance to 0.0 (NAVD 88)

Type III Analysis of Variance Table with Satterthwaite's method

	Sum Sq	Mean Sq	NumD F	DenDF	F value	Pr(>F)	
time_step	256.87	256.87	1	84.999	4.8784	0.02989	*
sector	821.39	136.90	6	85.057	2.5999	0.02314	*
time_step:sector	790.94	131.82	6	84.999	2.5035	0.028	*

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

sector	time_step.trend	SE	df	lower.C L	upper.C L
closed_beach*	-1.41	0.513	85	-2.43	-0.38976
sect_08	-0.884	0.662	85	-2.20	0.43328
sect_18	-0.706	0.662	85	-2.02	0.61095
sect_28	-1.308	0.662	85	-2.63	0.00858
sect_38	-0.415	0.662	85	-1.73	0.90245
the_port_mansfield_54	-0.642	0.662	85	-1.96	0.67461
the_port_mansfield_58*	1.607	0.662	85	0.29	2.92369