

Cape Romano-Ten Thousand Islands Aquatic Preserve

SEACAR Discrete Water Quality Analysis

Last compiled on 26 June, 2024

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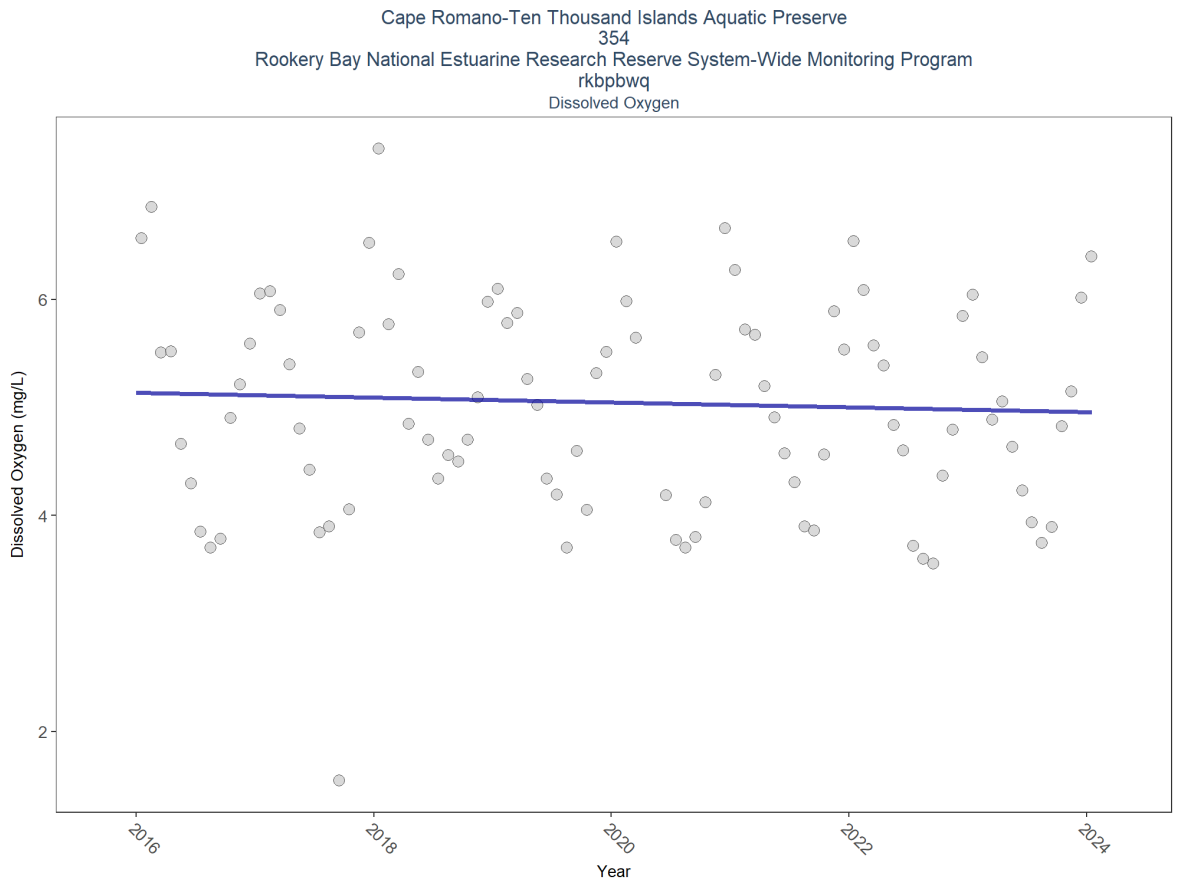
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Parameters

Dissolved Oxygen

rkbpbwq

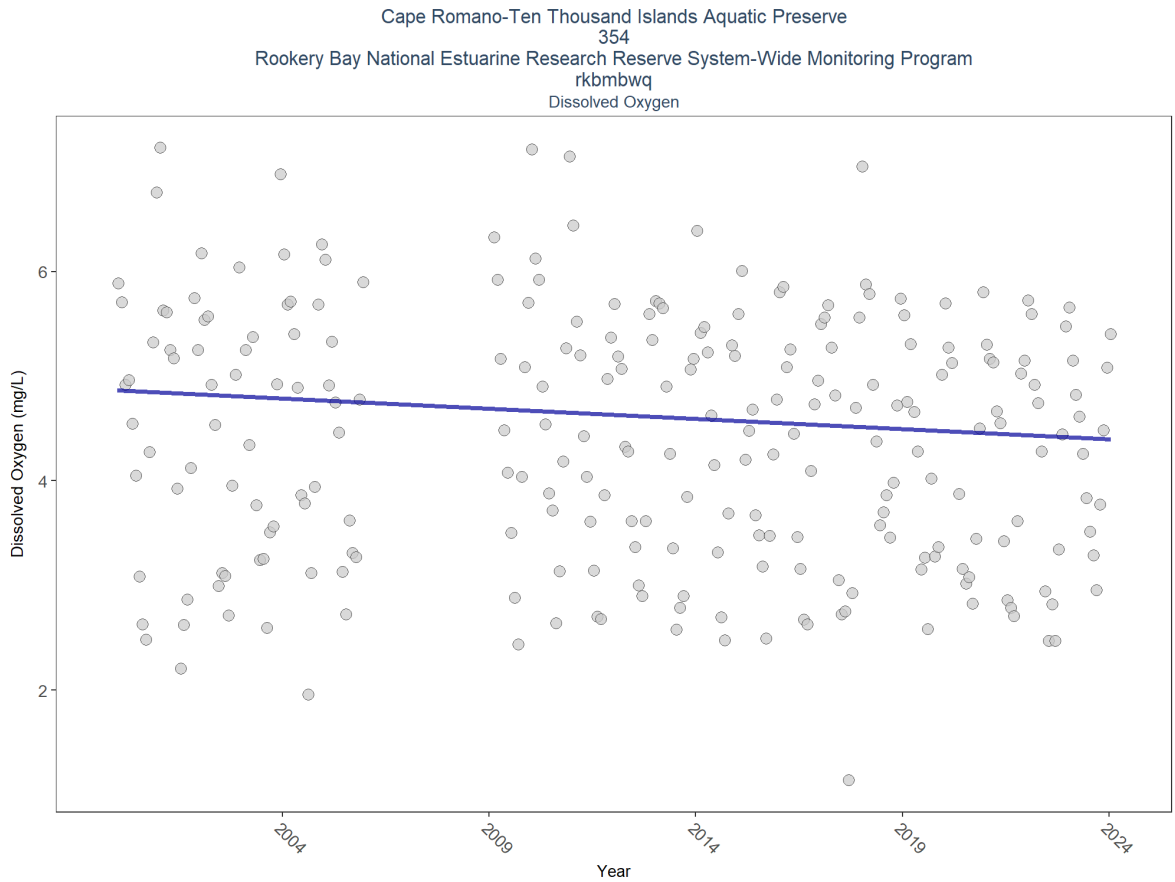


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	265255	9	5	TRUE	-0.1361	0.1209	-0.02269027	5.137504	5.0929	0.9266	0

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

rkbmbwq



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	587313	22	4.4	TRUE	-0.2213	0.0000	-0.01941125	4.862686	19.9079	0.0466	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfuwq

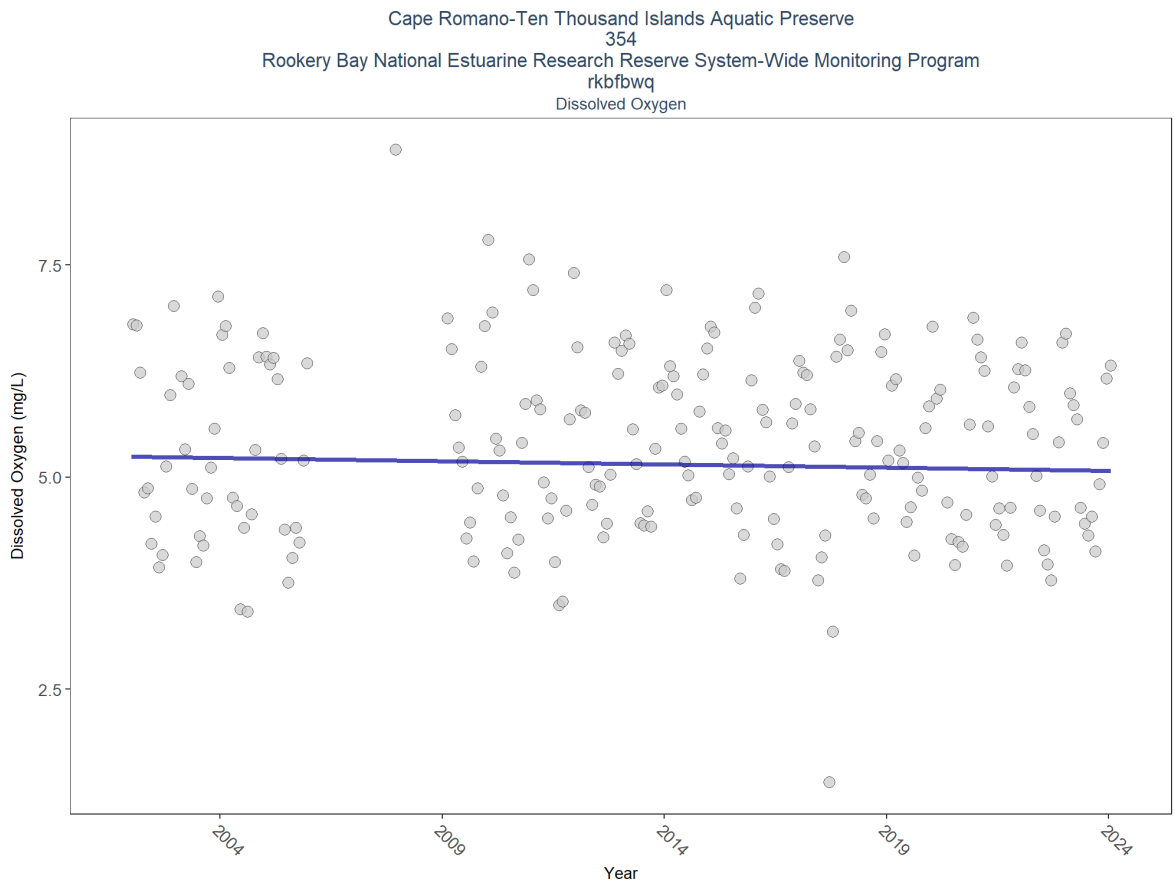


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	568567	20	5.1	TRUE	-0.3134	0.0000	-0.02688907	5.292392	7.7285	0.7374	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfbwq



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	533434	21	5.4	TRUE	-0.061	0.2007	-0.007723325	5.245141	13.7234	0.2487	0

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

All Stations Combined

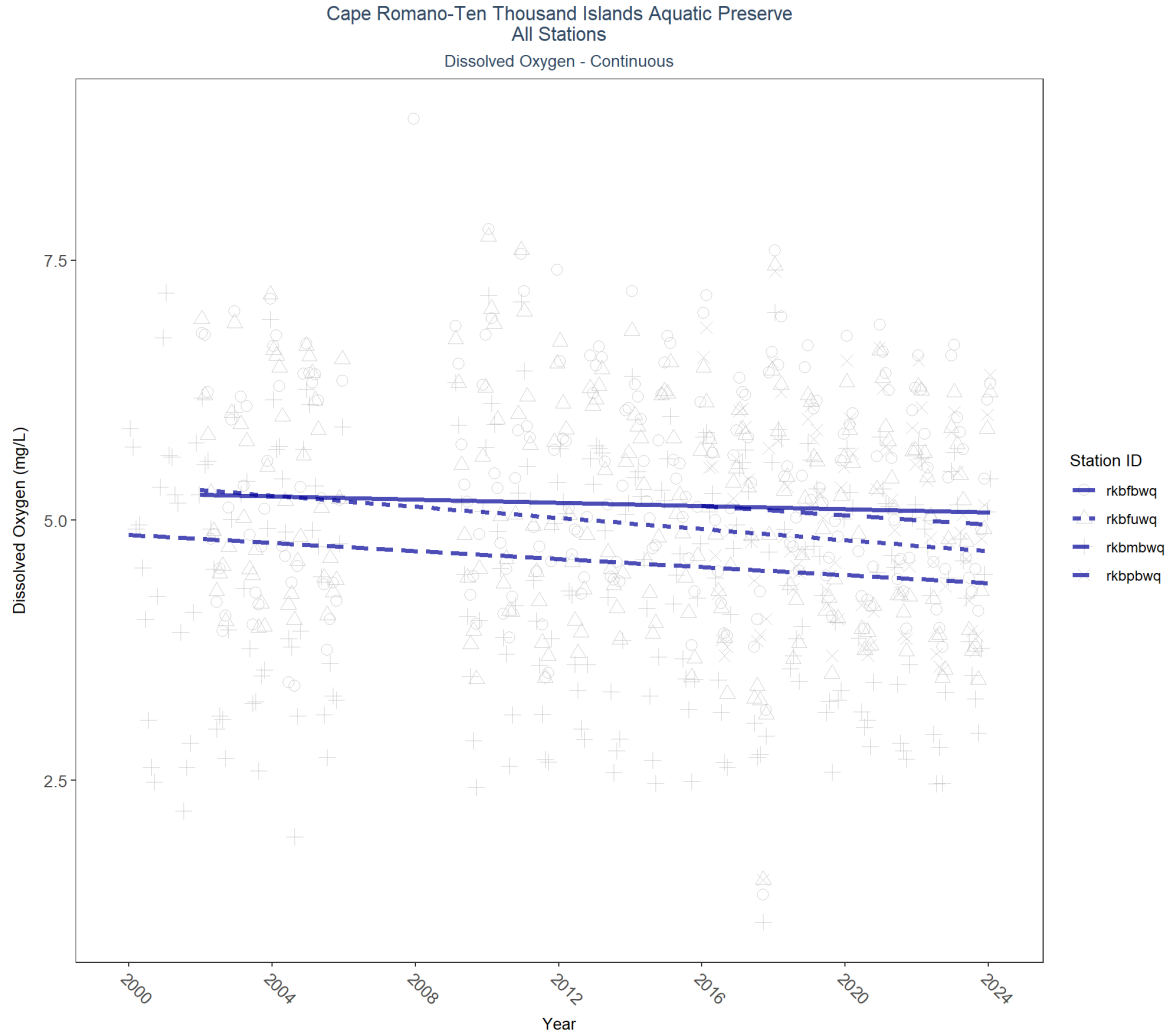
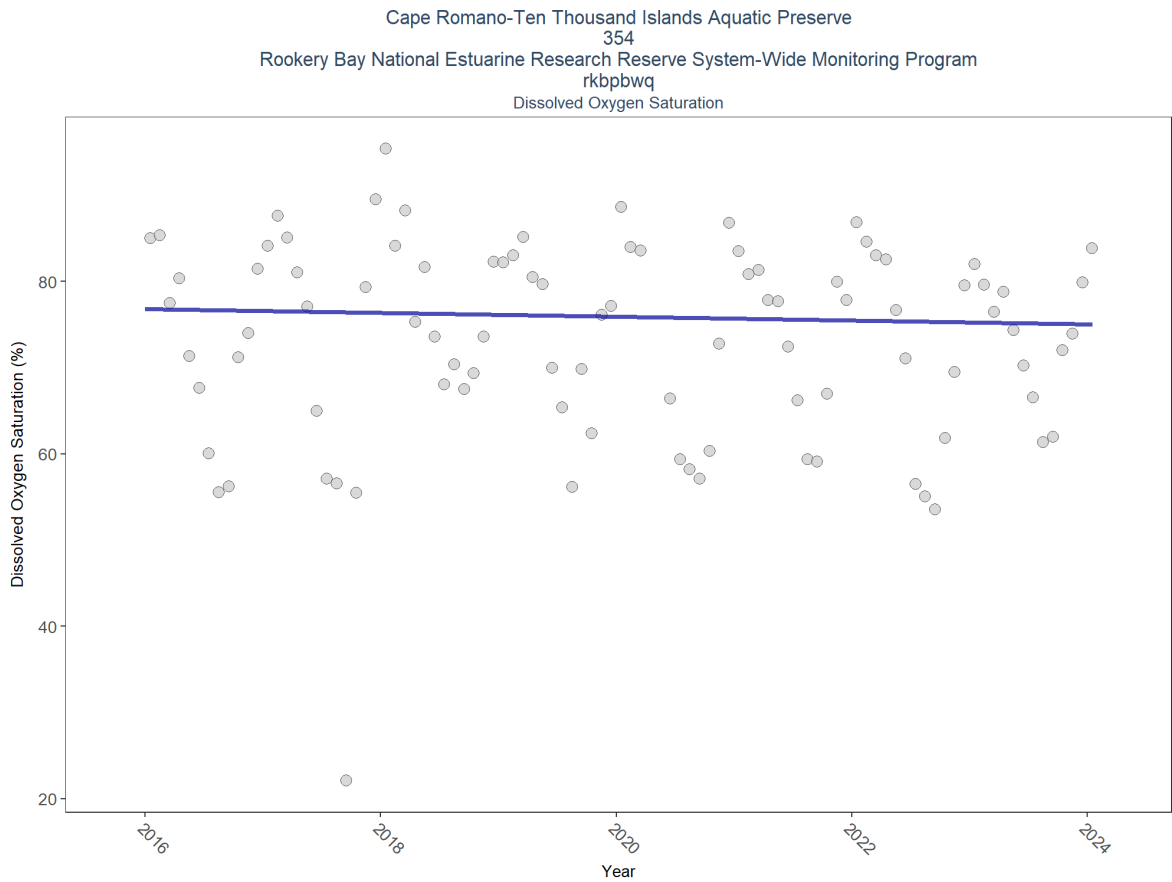


Table 1: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
rkbpbwq	265255	9	2016 - 2024	5.0	-0.14	5.14	-0.02	0.1209
rkmbwbq	587313	22	2000 - 2024	4.4	-0.22	4.86	-0.02	0.0000
rkbfuwq	568567	20	2002 - 2024	5.1	-0.31	5.29	-0.03	0.0000
rkbfwbq	533434	21	2002 - 2024	5.4	-0.06	5.25	-0.01	0.2007

Dissolved Oxygen Saturation

rkbpbwq



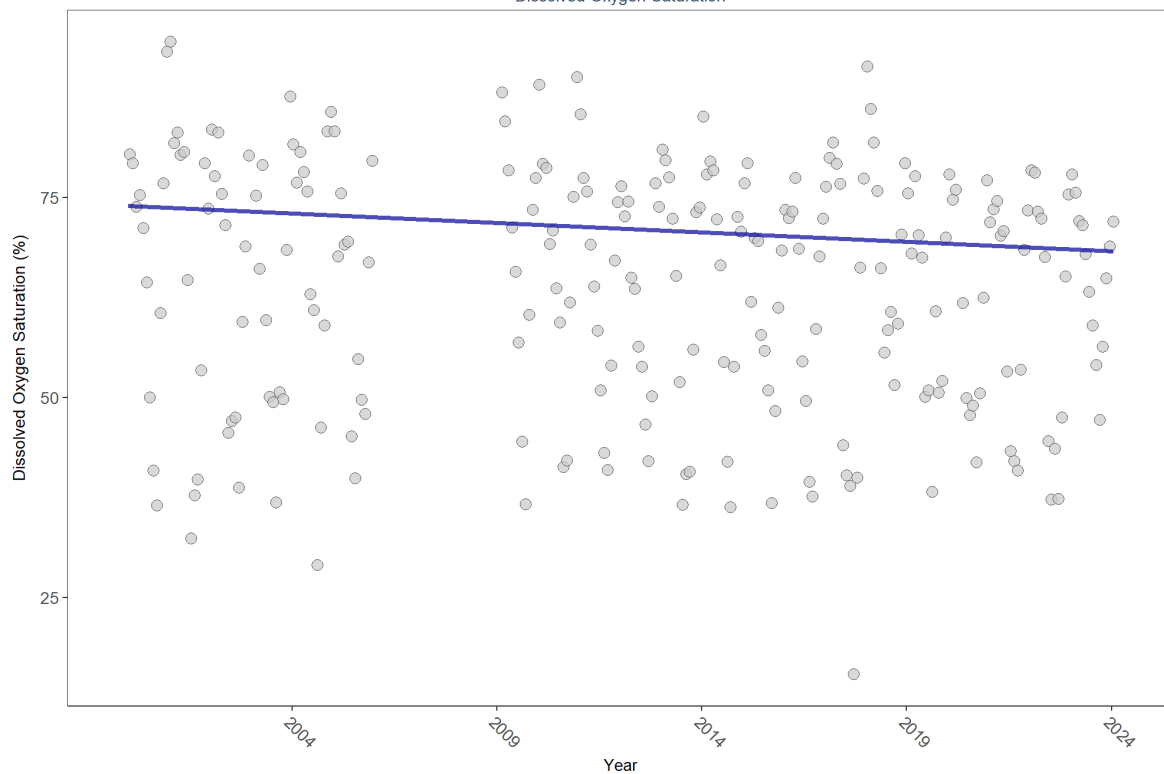
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	266877	9	72.8	TRUE	-0.0875	0.2956	-0.2261626	76.83201	8.2709	0.6888	0

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

rkbmbwq

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Dissolved Oxygen Saturation

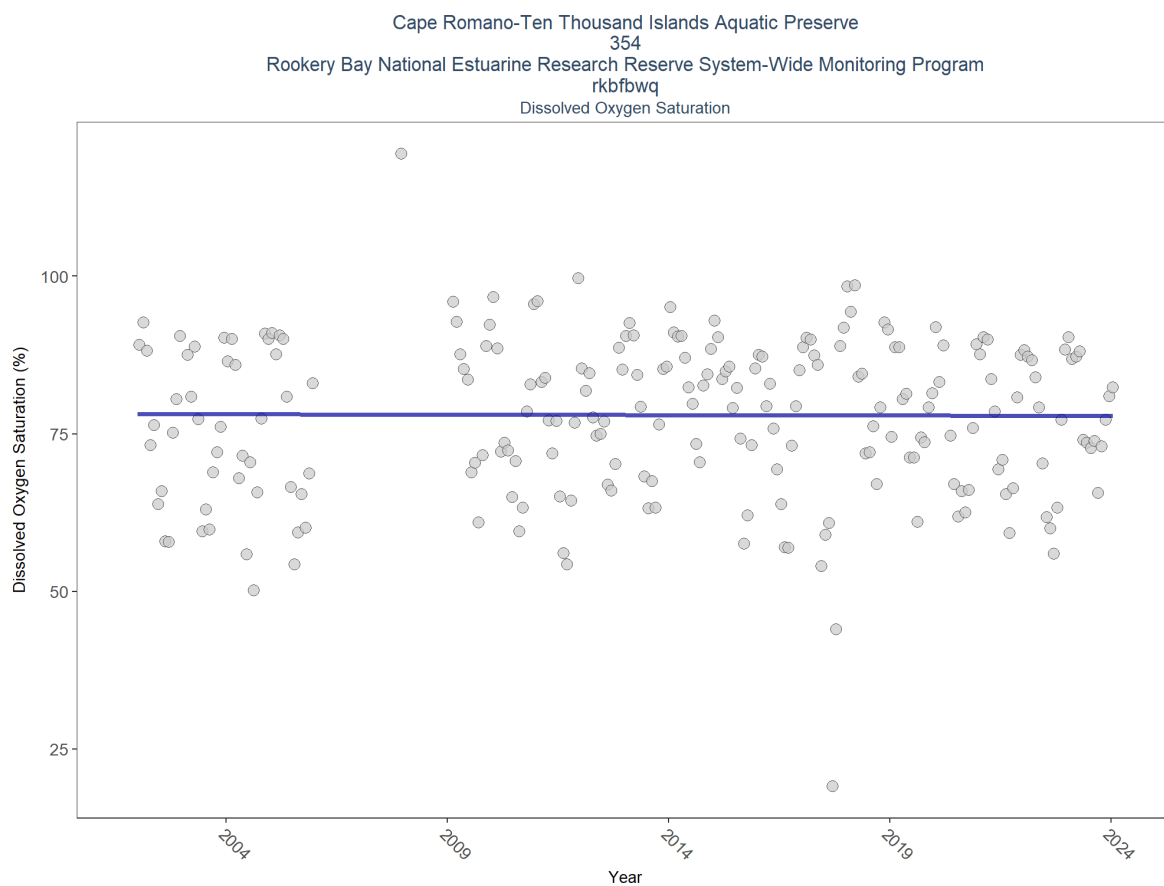


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	593607	22	65.4	TRUE	-0.1926	0.0000	-0.2366685	73.98255	18.5399	0.0699	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfbwq

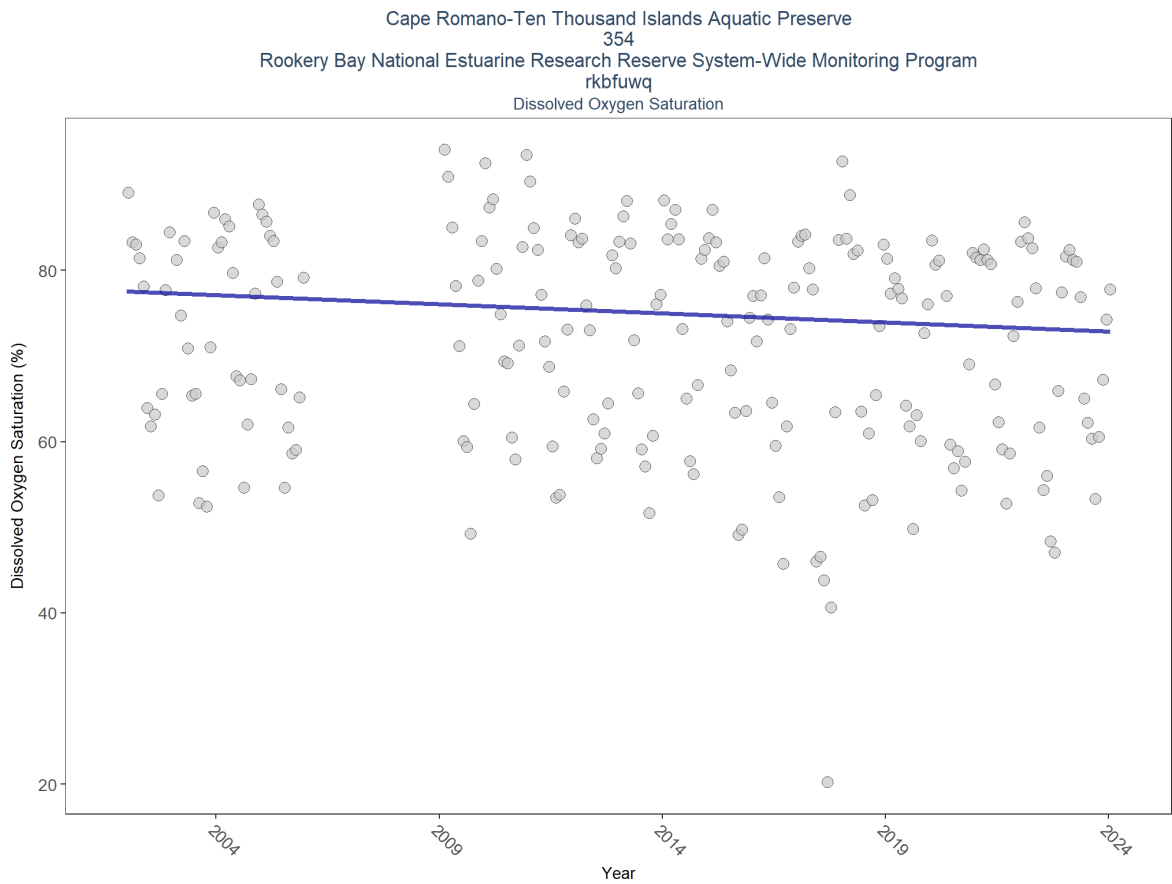


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	537719	21	78.6	TRUE	-0.002	0.9514	-0.01294134	78.13503	13.3462	0.2713	0

$p < 0.00005$ appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

rkbfuwq



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	568826	20	72.5	TRUE	-0.2238	0.0000	-0.2137134	77.54466	9.3021	0.594	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

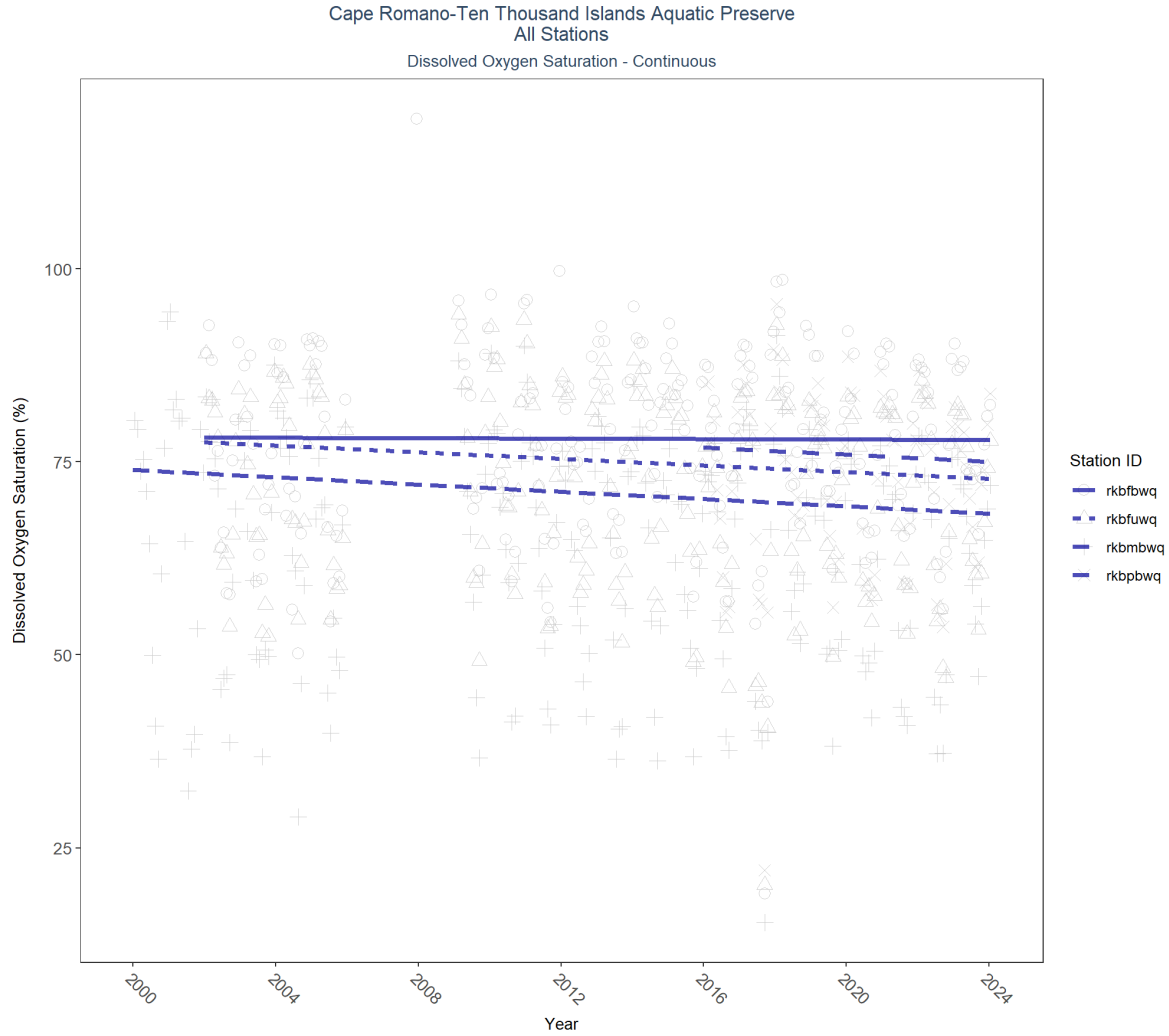
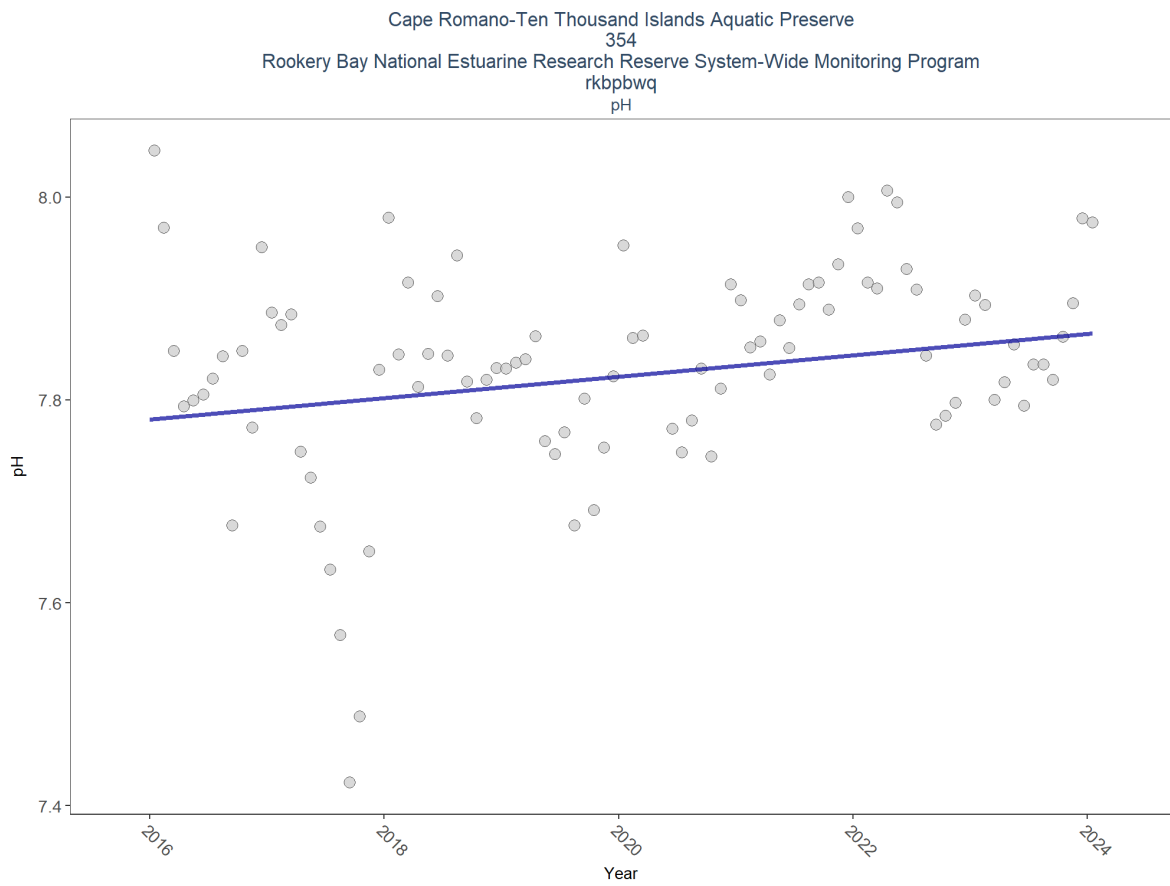


Table 2: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
rkbpbwq	266877	9	2016 - 2024	72.8	-0.09	76.83	-0.23	0.2956
rkmbbwq	593607	22	2000 - 2024	65.4	-0.19	73.98	-0.24	0.0000
rkbfbwq	537719	21	2002 - 2024	78.6	0.00	78.14	-0.01	0.9514
rkbfuwq	568826	20	2002 - 2024	72.5	-0.22	77.54	-0.21	0.0000

pH

rkbpbwq

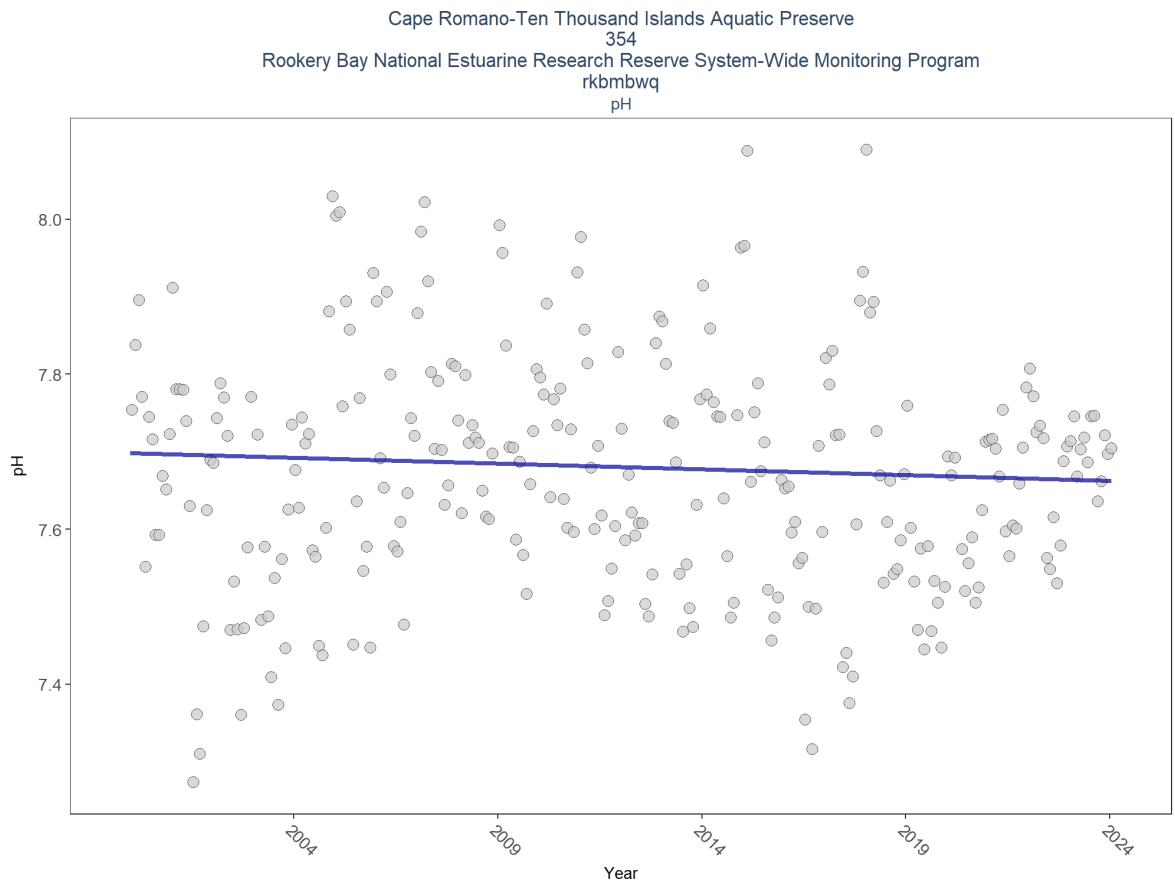


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	258730	9	7.8	TRUE	0.2576	0.0035	0.01059503	7.780725	5.7876	0.8872	1

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

rkbmbwq

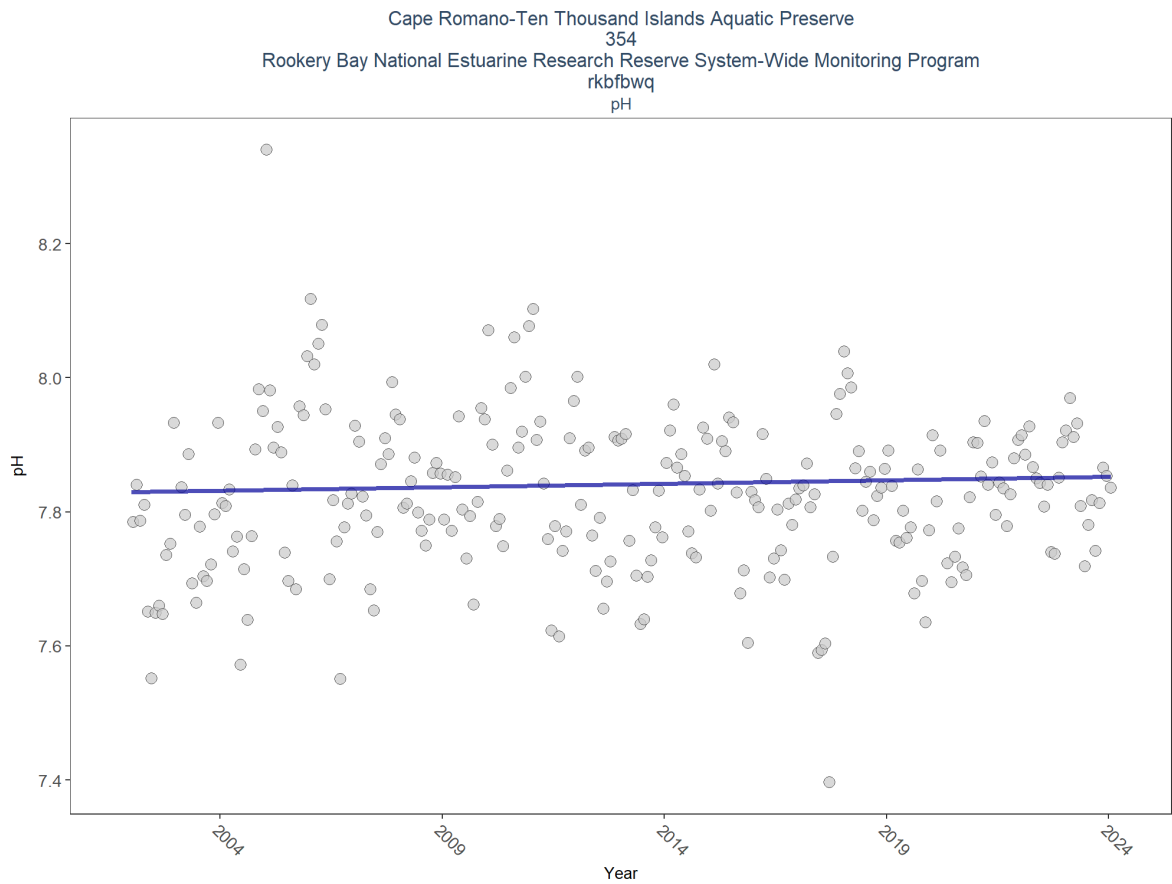


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	657568	25	7.7	TRUE	-0.066	0.1270	-0.001481863	7.698423	8.2436	0.6913	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfbwq

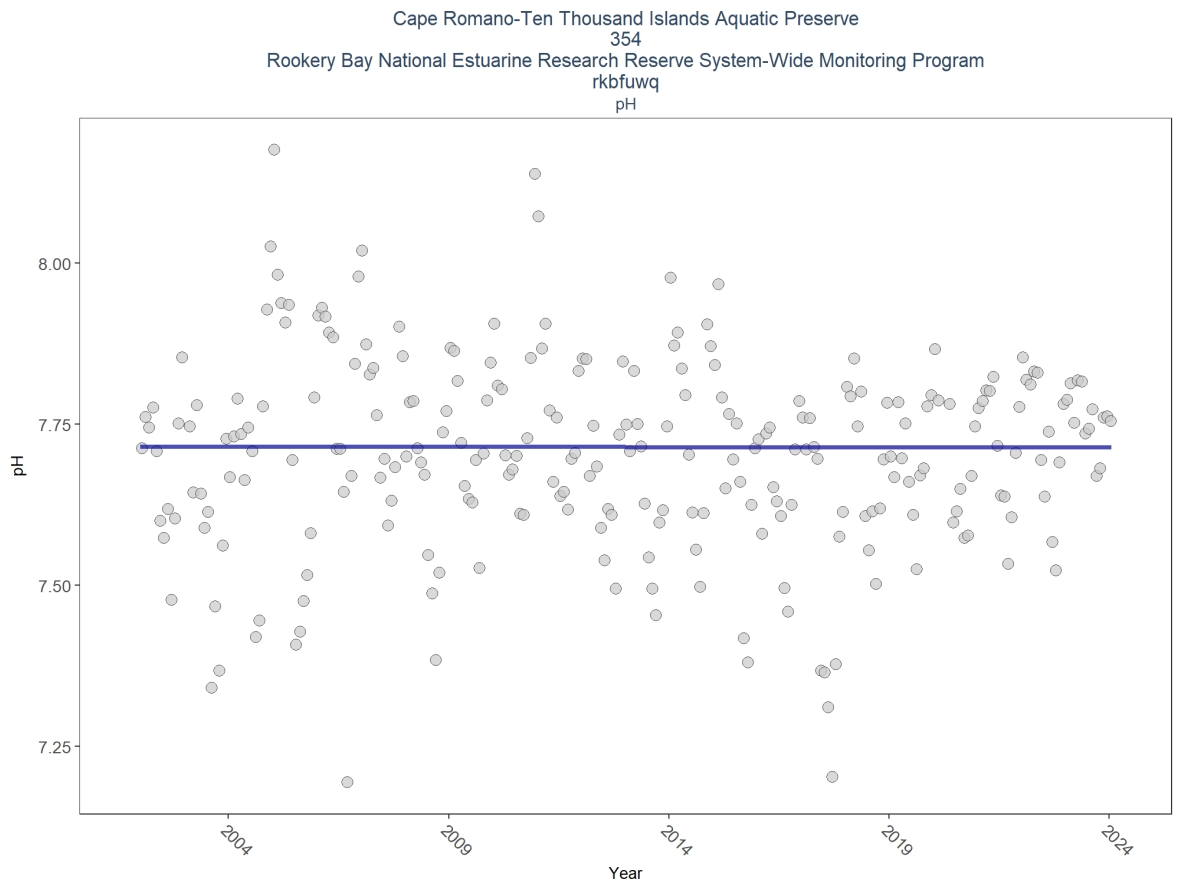


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	600183	23	7.8	TRUE	0.0535	0.2322	0.00106079	7.82921	14.627	0.2002	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfuwq



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	623866	23	7.7	TRUE	-0.0021	0.9803	-0.0000416198	7.715122	18.8823	0.0632	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

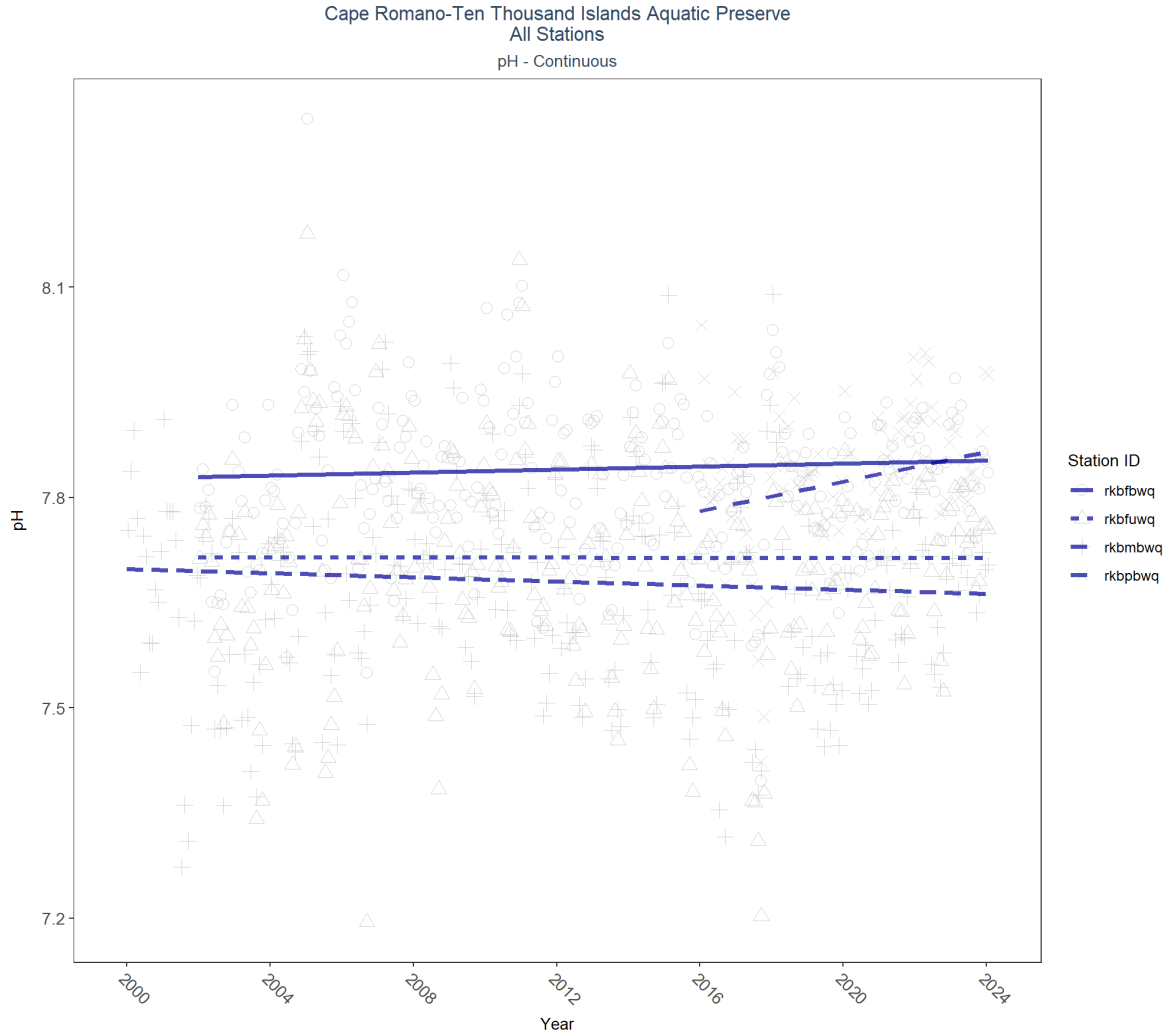
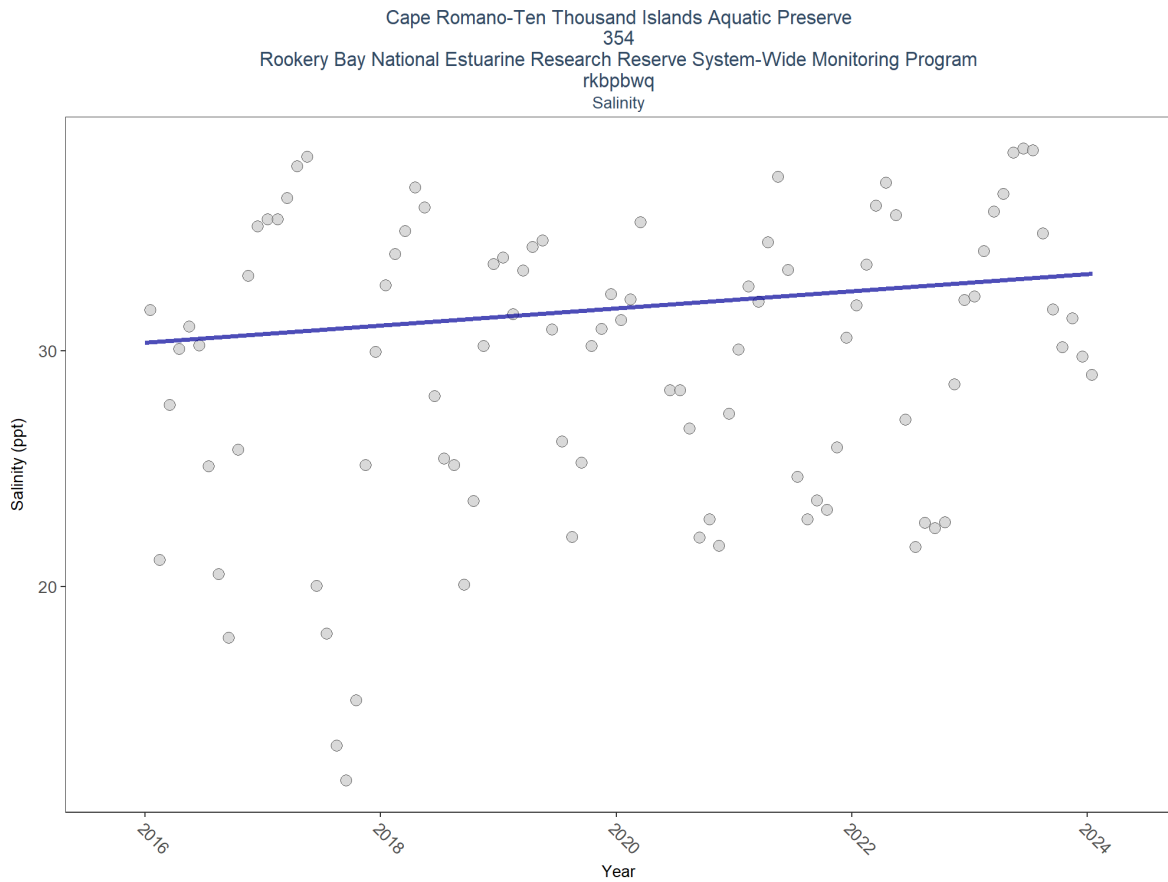


Table 3: Seasonal Kendall-Tau Results for All Stations - pH

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
rkbpbwq	258730	9	2016 - 2024	7.8	0.26	7.78	0.01	0.0035
rkmbbwq	657568	25	2000 - 2024	7.7	-0.07	7.70	0.00	0.1270
rkbfbwq	600183	23	2002 - 2024	7.8	0.05	7.83	0.00	0.2322
rkbfbwq	623866	23	2002 - 2024	7.7	0.00	7.72	0.00	0.9803

Salinity
rkbpbwq

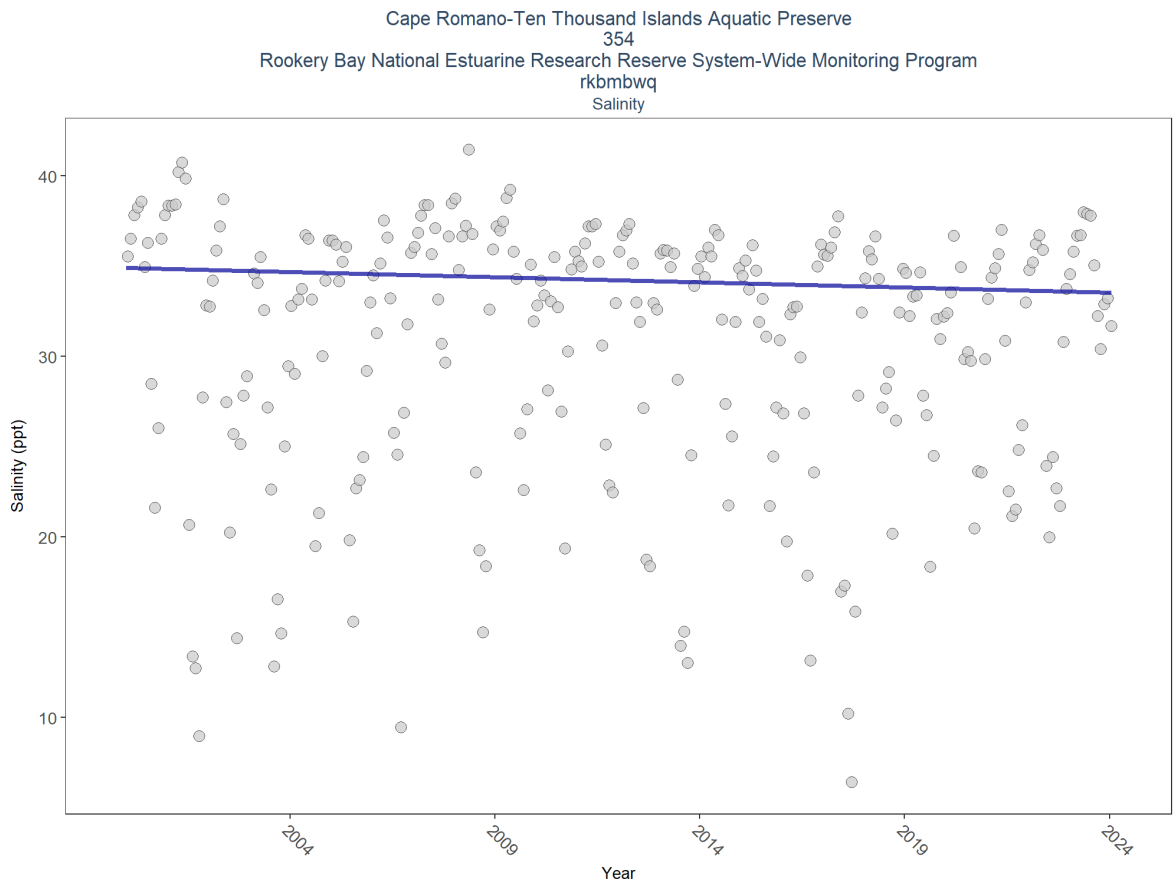


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	265563	9	30.5	TRUE	0.1546	0.0900	0.3607148	30.35187	14.1483	0.2249	0

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

rkbmbwq

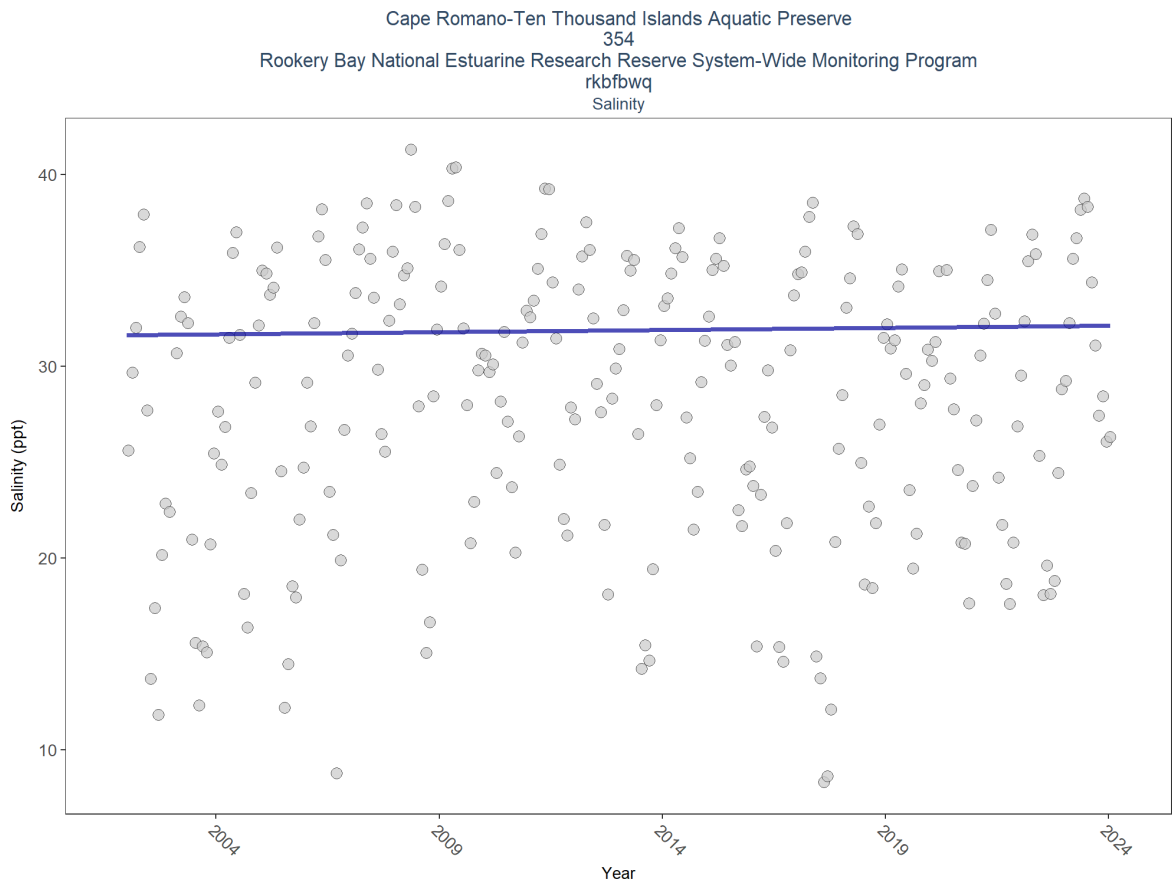


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	668919	25	33.4	TRUE	-0.0817	0.0556	-0.05712366	34.8987	12.5693	0.3224	0

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

rkbfbwq



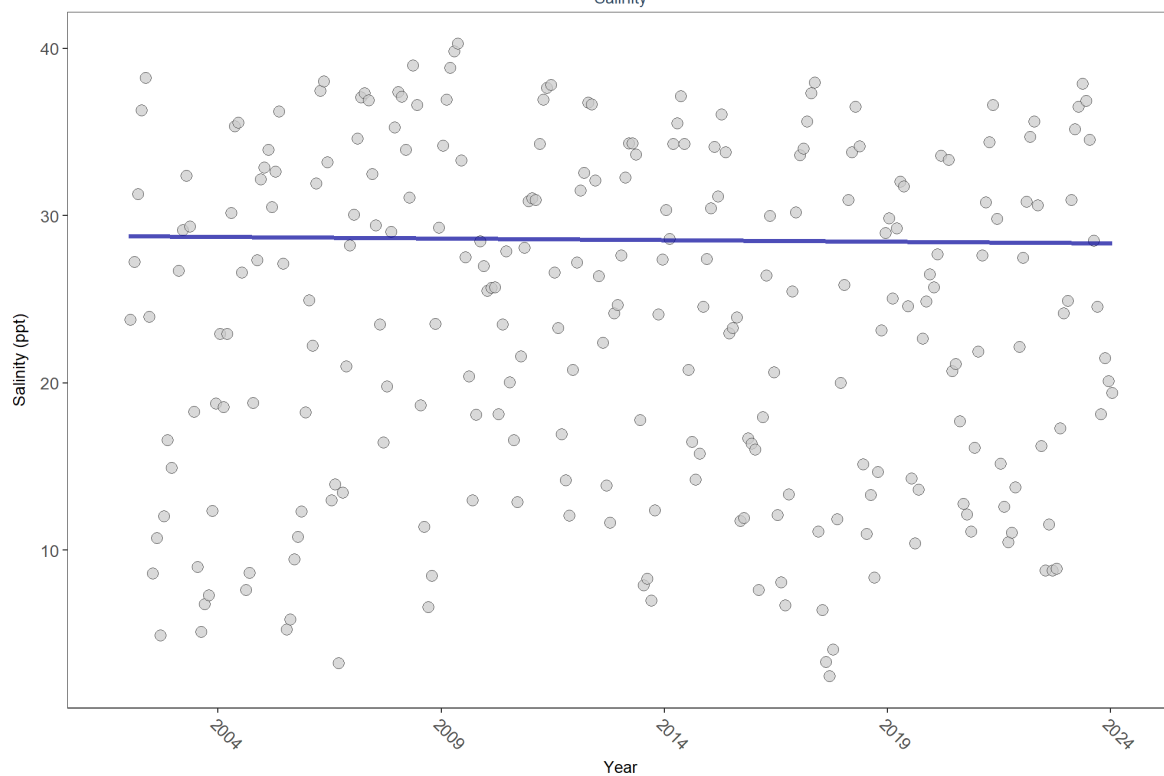
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	632702	23	29.9	TRUE	0.024	0.6004	0.02121711	31.63733	6.8237	0.8132	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfuwq

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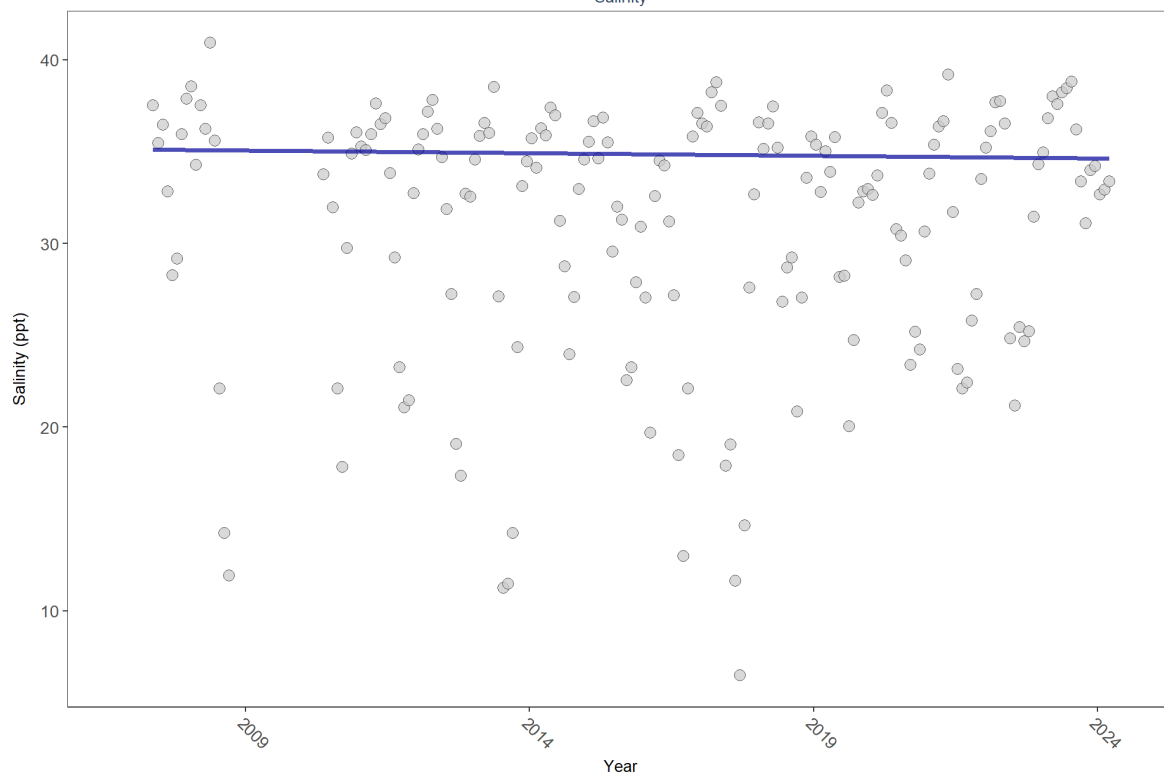
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	649121	23	26.3	TRUE	-0.0162	0.7188	-0.01908569	28.79302	8.9425	0.6272	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

255654081350200

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Salinity

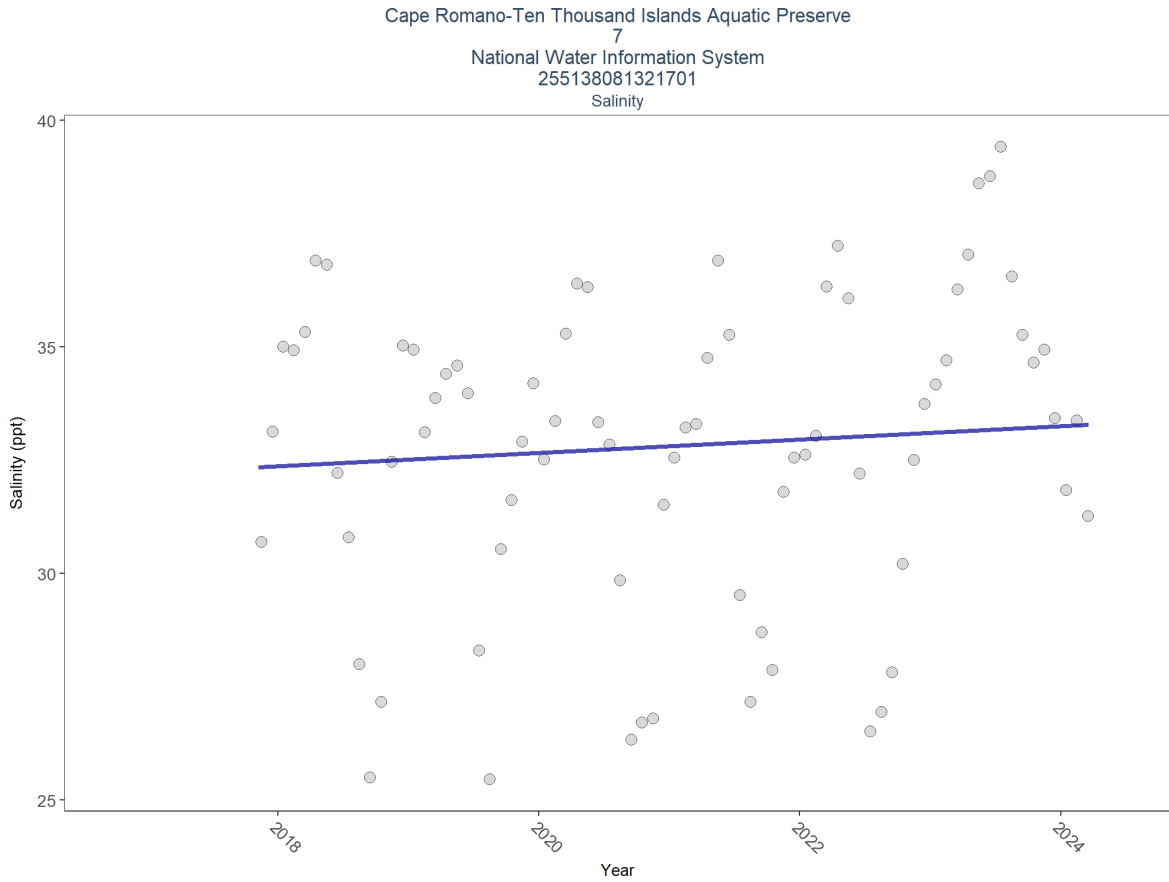


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	5992	17	34	TRUE	-0.039	0.4902	-0.02903226	35.12257	9.1204	0.6108	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

255138081321701

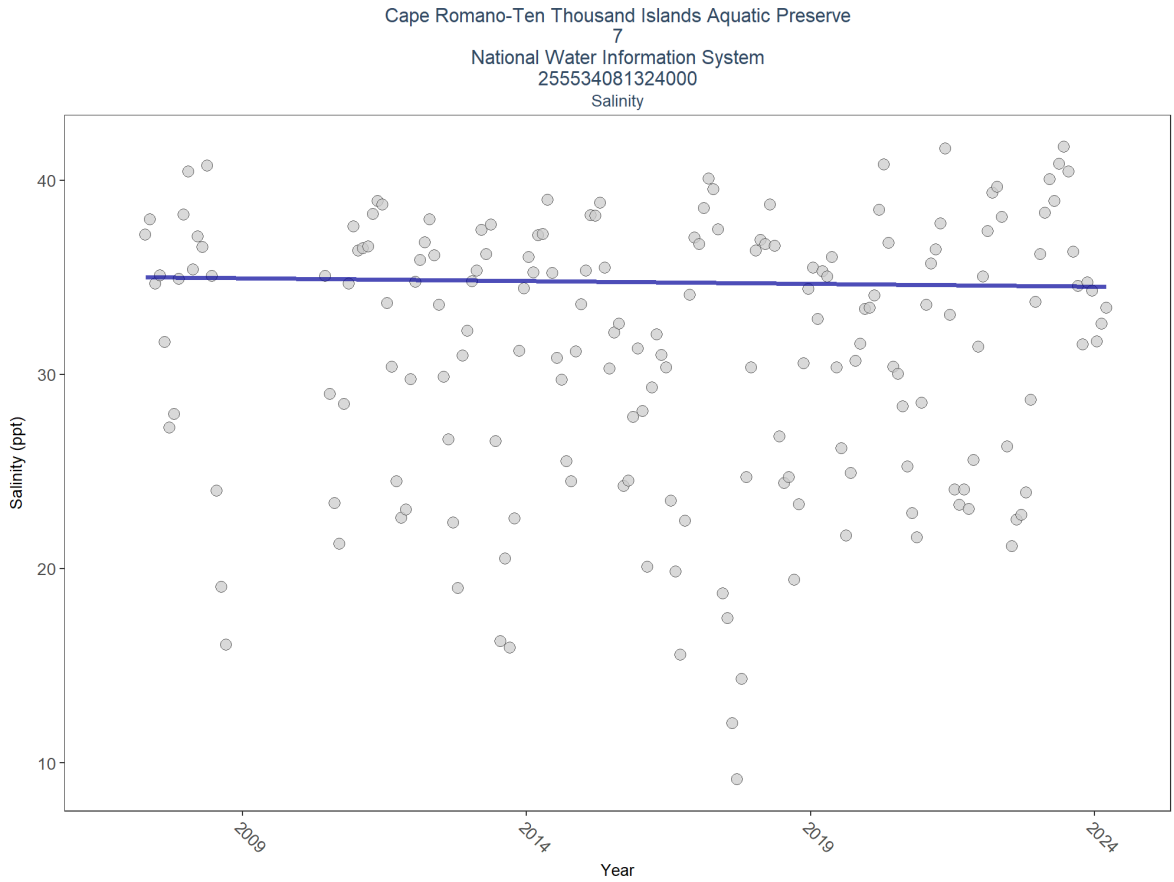


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	2288	8	33	TRUE	0.1411	0.2225	0.1468586	32.21864	8.3328	0.6832	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

255534081324000



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	5987	17	33	TRUE	-0.0261	0.6385	-0.02965352	35.03156	8.4654	0.6711	0

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

255732081363700

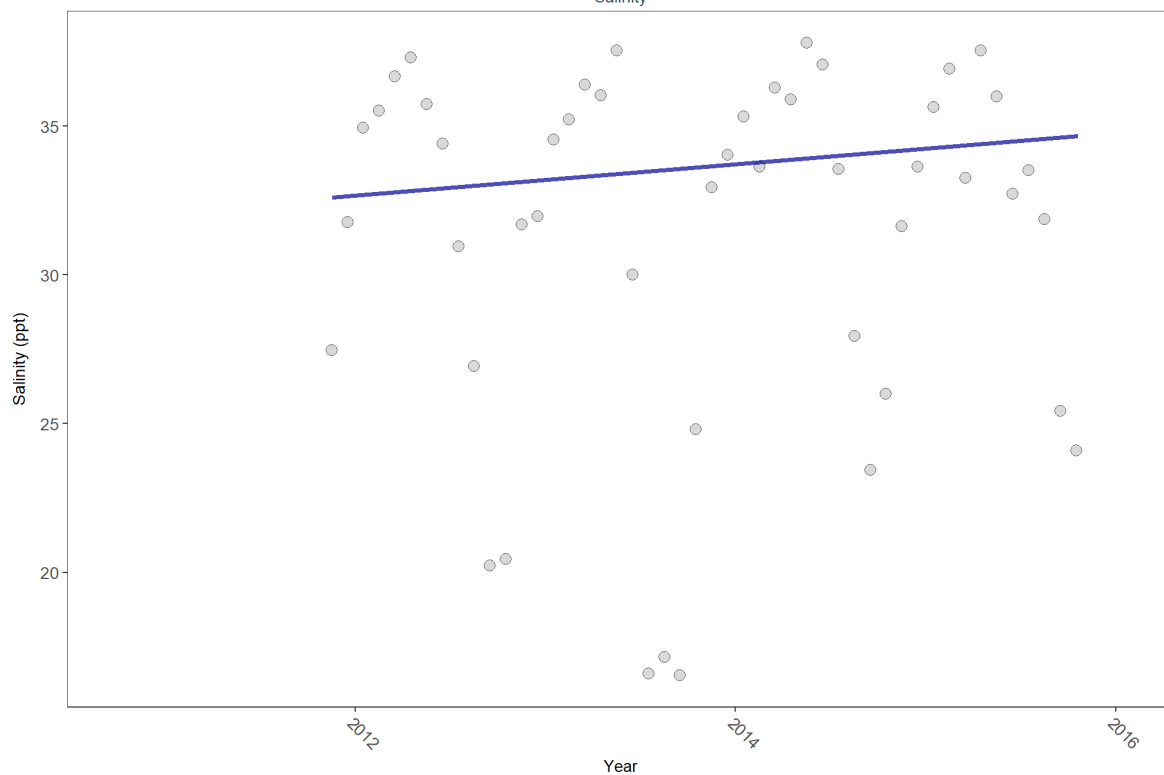
Cape Romano-Ten Thousand Islands Aquatic Preserve

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National Water Information System

255732081363700

Salinity



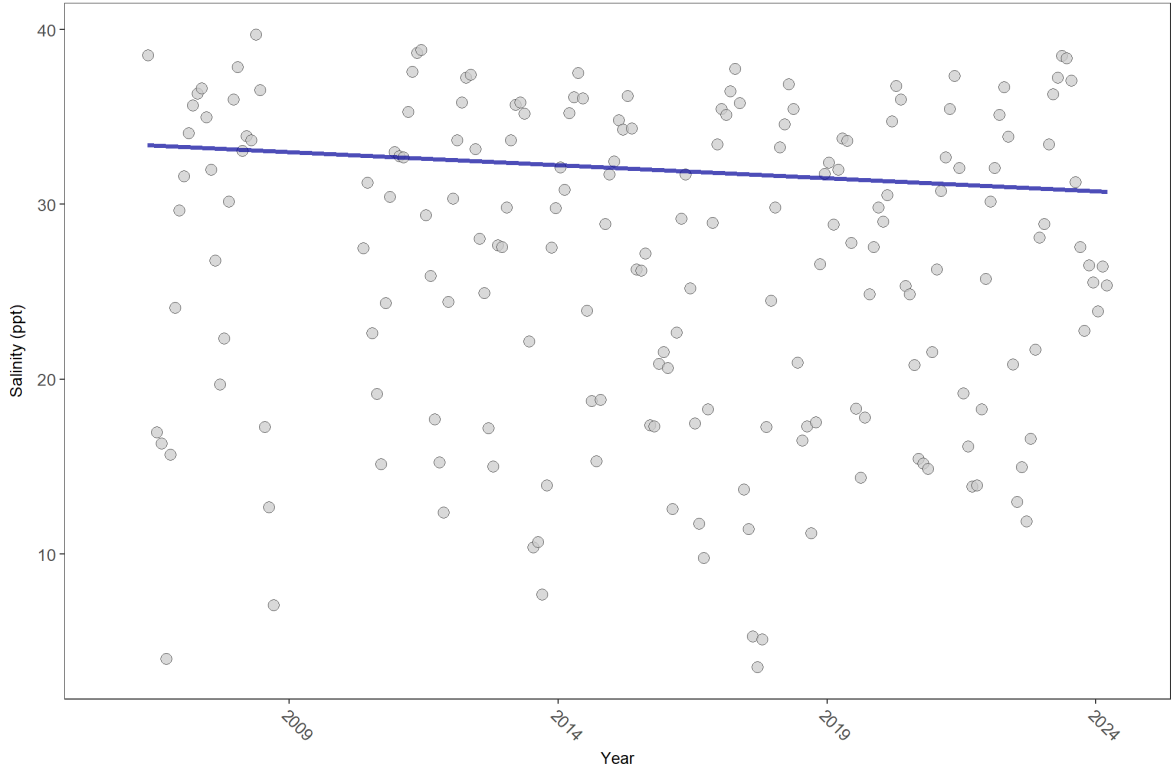
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	1434	5	34	TRUE	0.25	0.0955	0.5241935	32.15206	10.2692	0.5063	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

255432081303900

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National Water Information System
255432081303900
Salinity



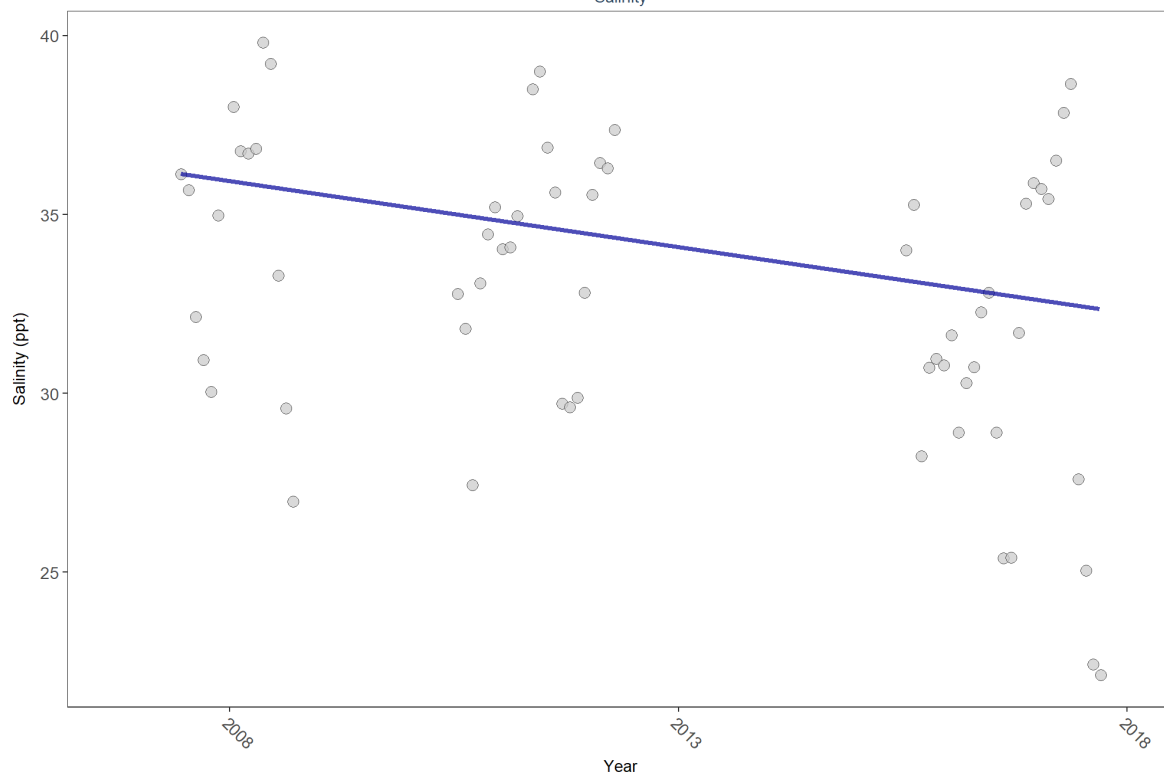
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	6582	18	29	TRUE	-0.1445	0.0072	-0.1496599	33.44656	8.7021	0.6494	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

255123081321300

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Salinity



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	1809	8	34	TRUE	-0.2487	0.0129	-0.3686275	36.29955	6.8924	0.8077	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

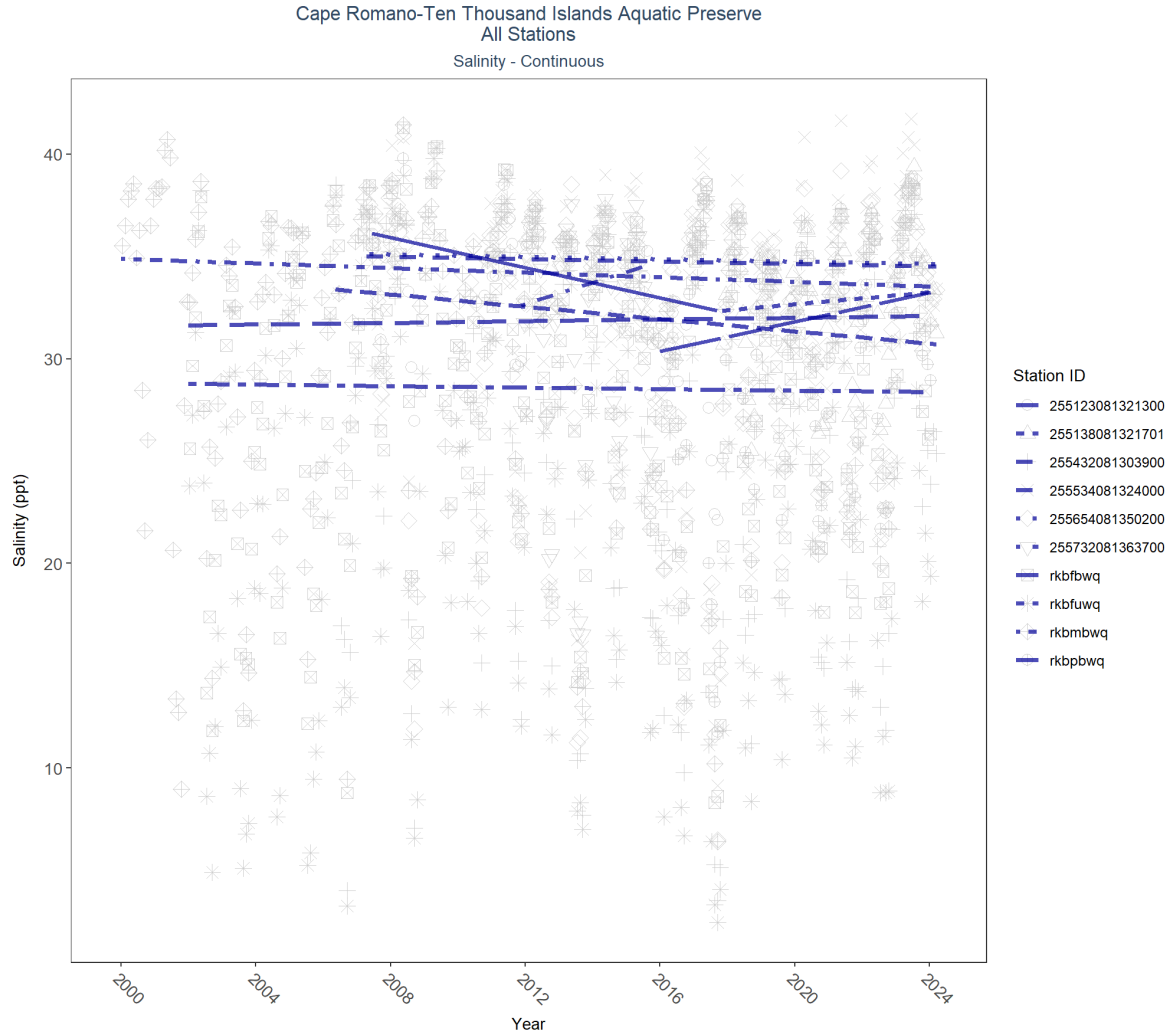


Table 4: Seasonal Kendall-Tau Results for All Stations - Salinity

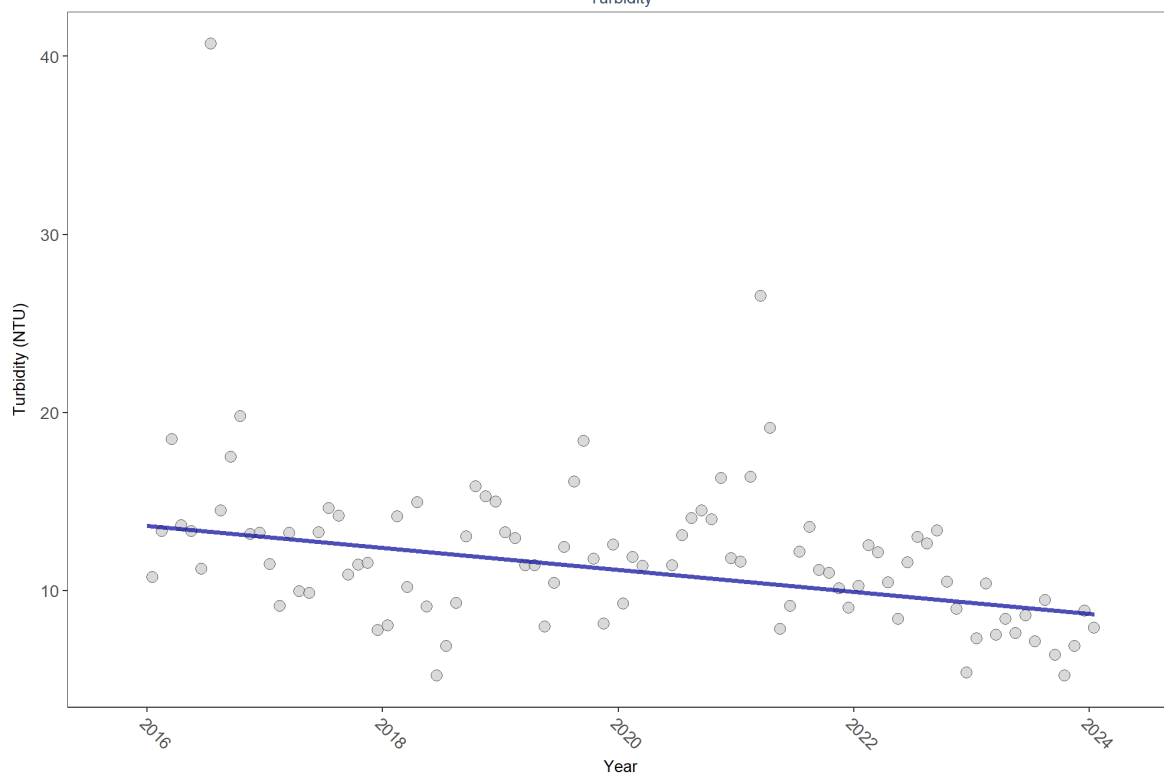
Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
rkbpbwq	265563	9	2016 - 2024	30.5	0.15	30.35	0.36	0.0900
rkbmbwq	668919	25	2000 - 2024	33.4	-0.08	34.9	-0.06	0.0556
rkbfbwq	632702	23	2002 - 2024	29.9	0.02	31.64	0.02	0.6004
rkbfuwq	649121	23	2002 - 2024	26.3	-0.02	28.79	-0.02	0.7188
255654081350200	5992	17	2007 - 2024	34.0	-0.04	35.12	-0.03	0.4902
255138081321701	2288	8	2017 - 2024	33.0	0.14	32.22	0.15	0.2225
255534081324000	5987	17	2007 - 2024	33.0	-0.03	35.03	-0.03	0.6385

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
255443081314700	1465	4	2007 - 2011	32.0	-	-	-	-
255732081363700	1434	5	2011 - 2015	34.0	0.25	32.15	0.52	0.0955
255432081303900	6582	18	2006 - 2024	29.0	-0.14	33.45	-0.15	0.0072
255123081321300	1809	8	2007 - 2017	34.0	-0.25	36.3	-0.37	0.0129
255532081314300	902	3	2009 - 2011	31.0	-	-	-	-

Turbidity

rkbpbwq

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rkbpbwq
Turbidity



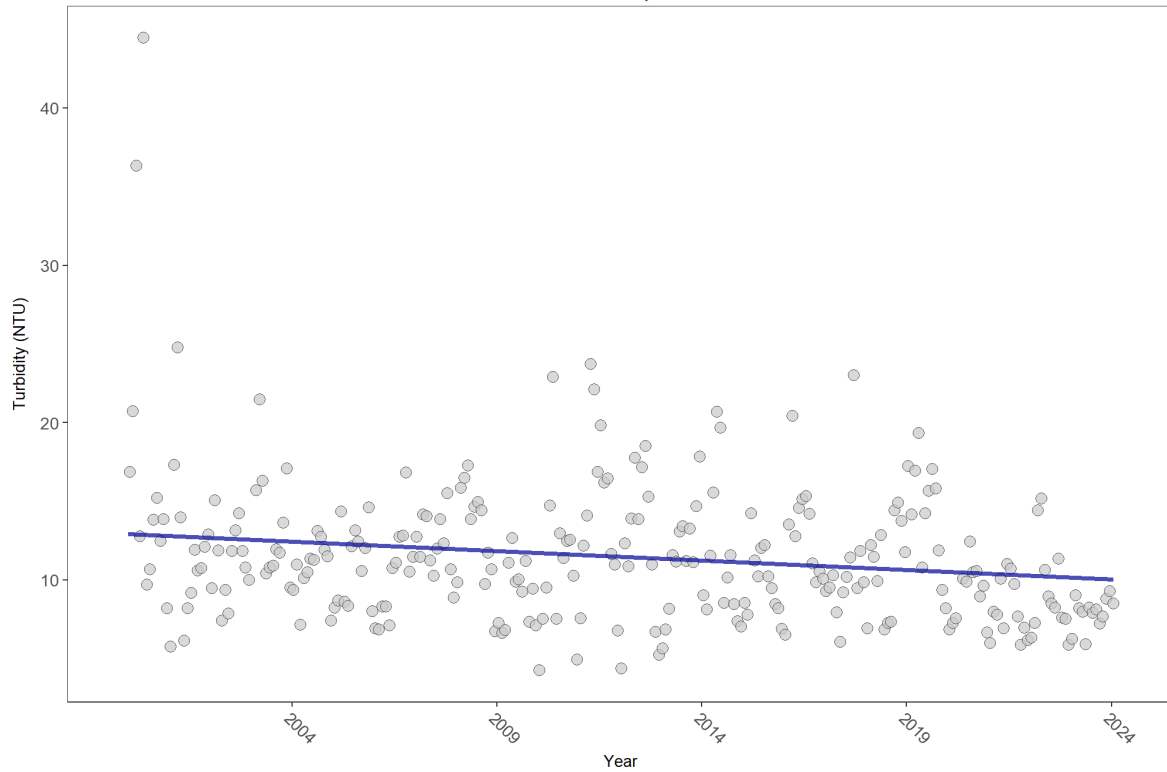
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	261955	9	10	TRUE	-0.3975	0.0000	-0.6183176	13.64361	5.1262	0.9249	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbmbwq

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rkbmbwq
Turbidity



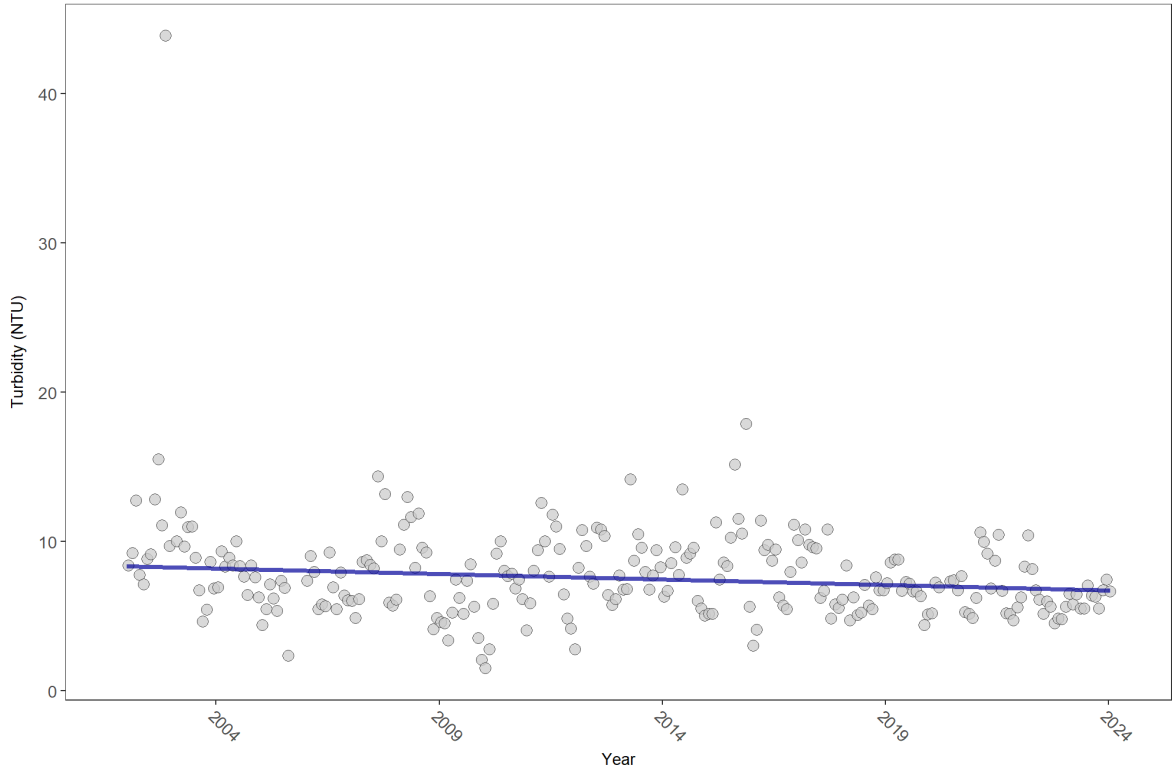
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	645856	25	10	TRUE	-0.1961	0.0000	-0.1199739	12.91775	10.9129	0.4506	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfuwq

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Turbidity



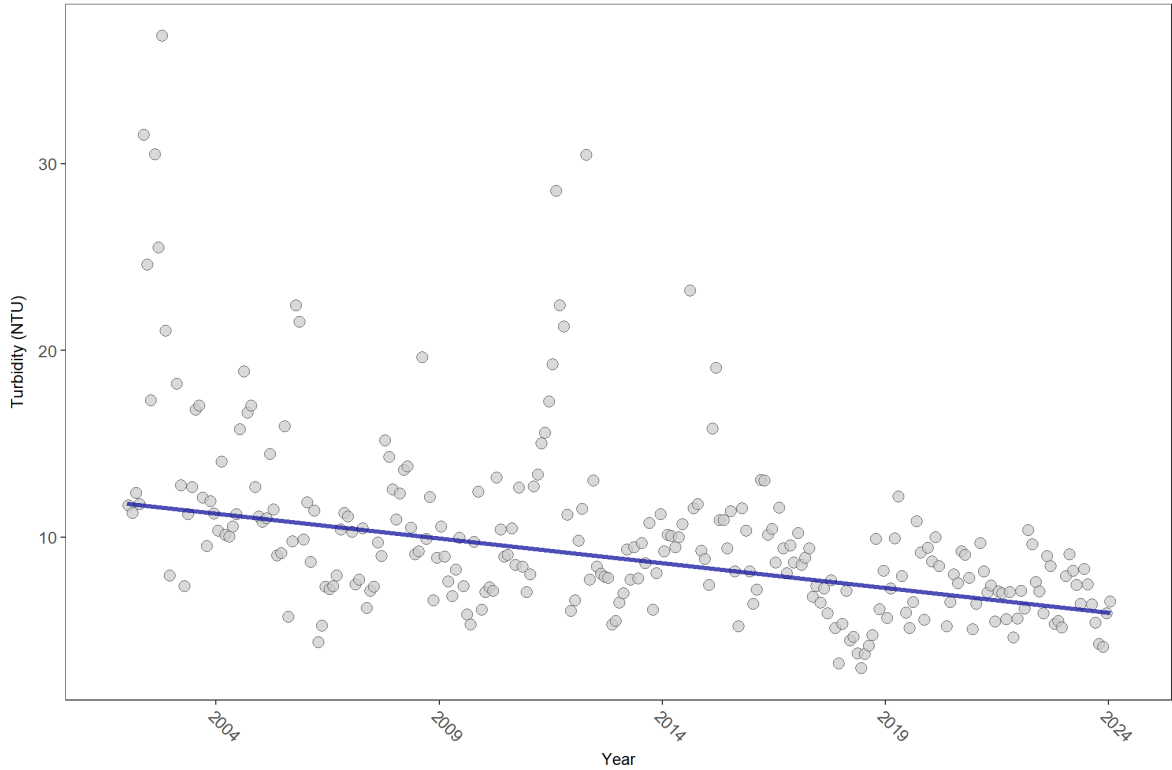
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	589837	23	6	TRUE	-0.1683	0.0002	-0.07335832	8.366577	6.7185	0.8214	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

rkbfbwq

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Rookery Bay National Estuarine Research Reserve System-Wide Monitoring Program
rkbfbwq
Turbidity



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	612433	23	7	TRUE	-0.4019	0.0000	-0.2658098	11.79978	10.1303	0.5187	-1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

All Stations Combined

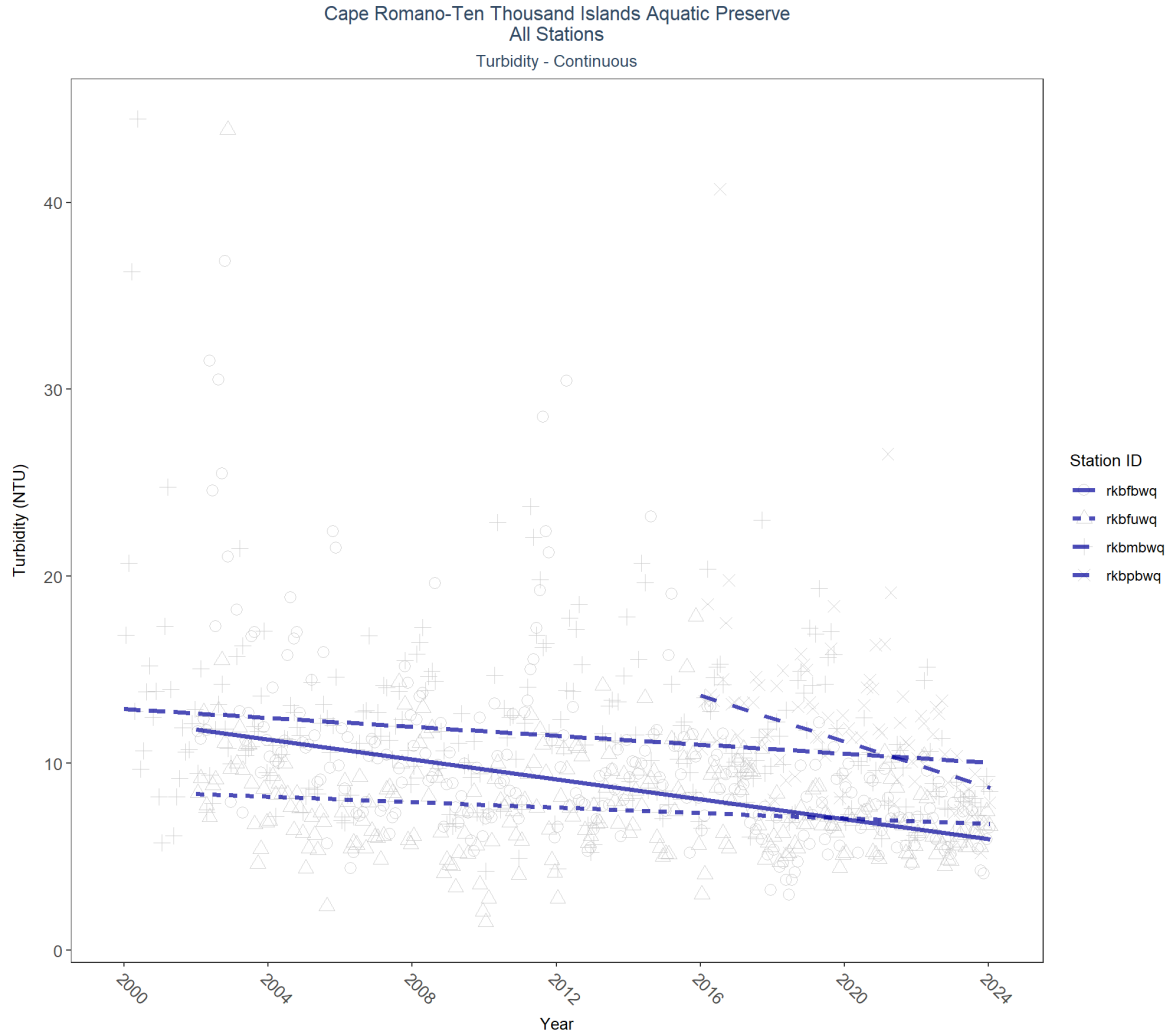
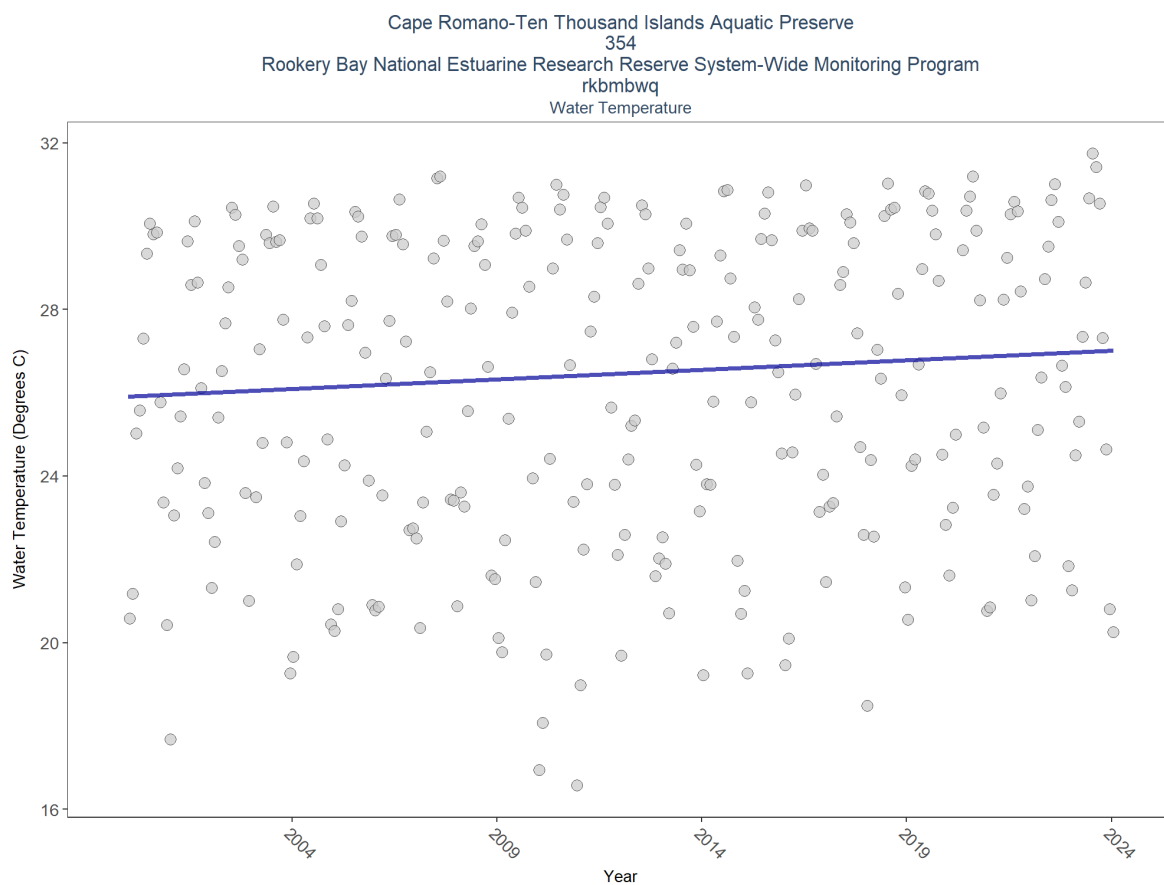


Table 5: Seasonal Kendall-Tau Results for All Stations - Turbidity

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
rkbpbwq	261955	9	2016 - 2024	10	-0.40	13.64	-0.62	0.0000
rkmbwbq	645856	25	2000 - 2024	10	-0.20	12.92	-0.12	0.0000
rkbfuwq	589837	23	2002 - 2024	6	-0.17	8.37	-0.07	0.0002
rkbfwbq	612433	23	2002 - 2024	7	-0.40	11.80	-0.27	0.0000

Water Temperature

rkbmbwq



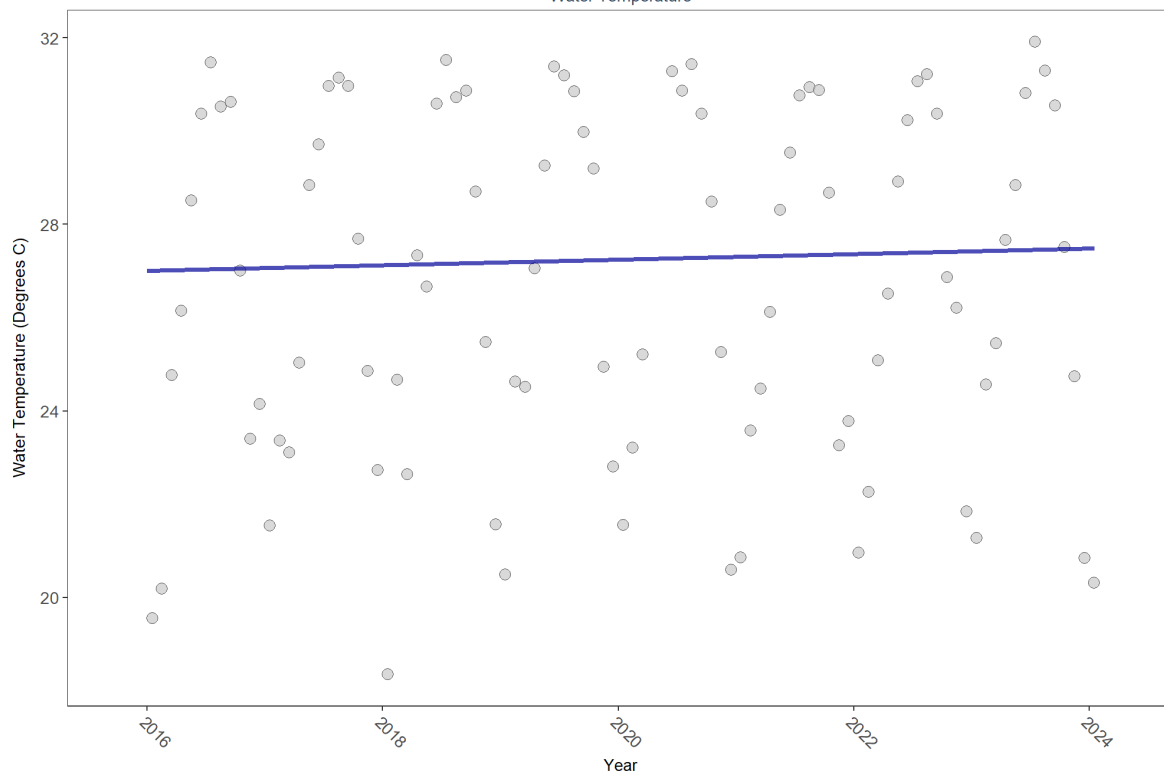
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	692233	25	26.8	TRUE	0.2506	0.0000	0.04640183	25.90599	5.3061	0.9154	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of record for monitoring location

rkbpbwq

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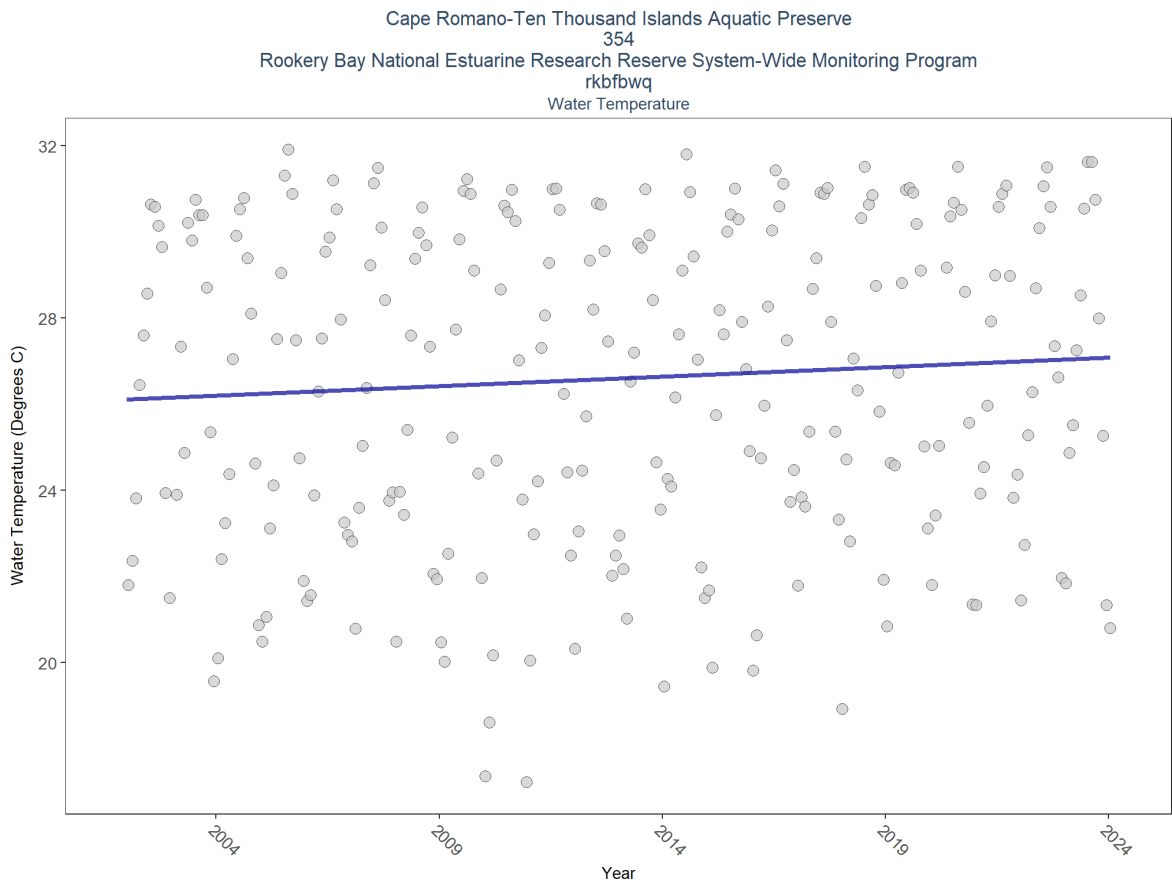


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	268436	9	27.4	TRUE	0.112	0.2068	0.06074618	27.00063	8.6427	0.6548	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfbwq

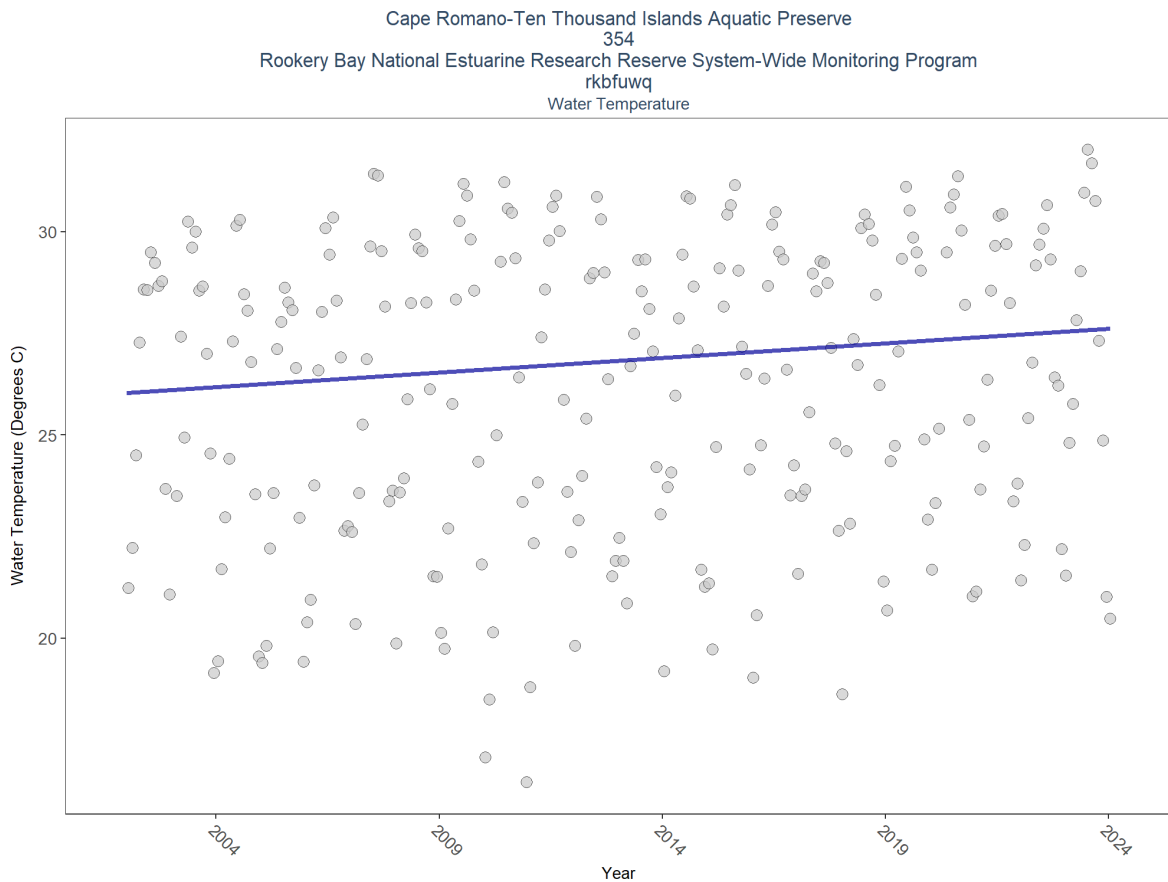


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	648515	23	27	TRUE	0.2278	0.0000	0.04416166	26.10841	5.379	0.9114	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

rkbfuwq

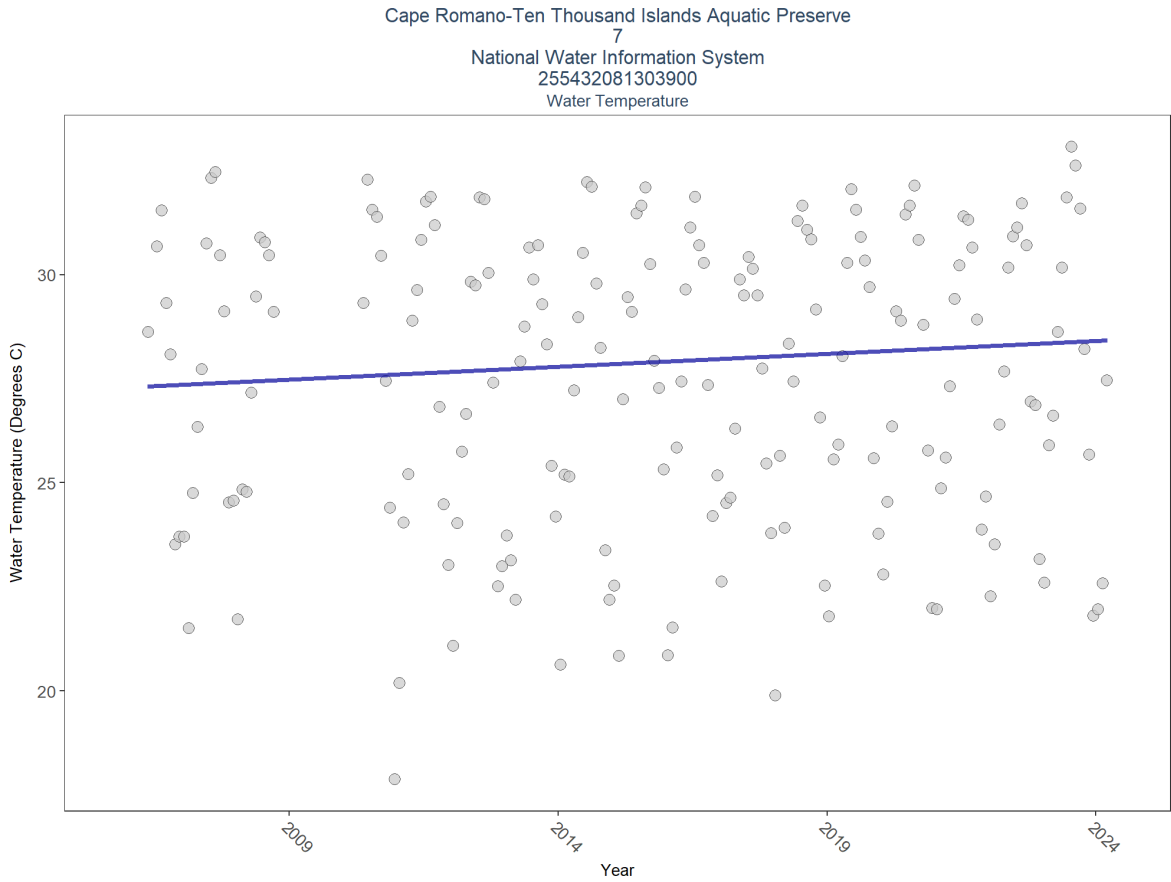


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	659552	23	26.9	TRUE	0.2756	0.0000	0.0722692	26.02745	3.5684	0.9809	1

p < 0.00005 appear as 0 due to rounding.

*SennIntercept is intercept value at beginning of
record for monitoring location*

255432081303900

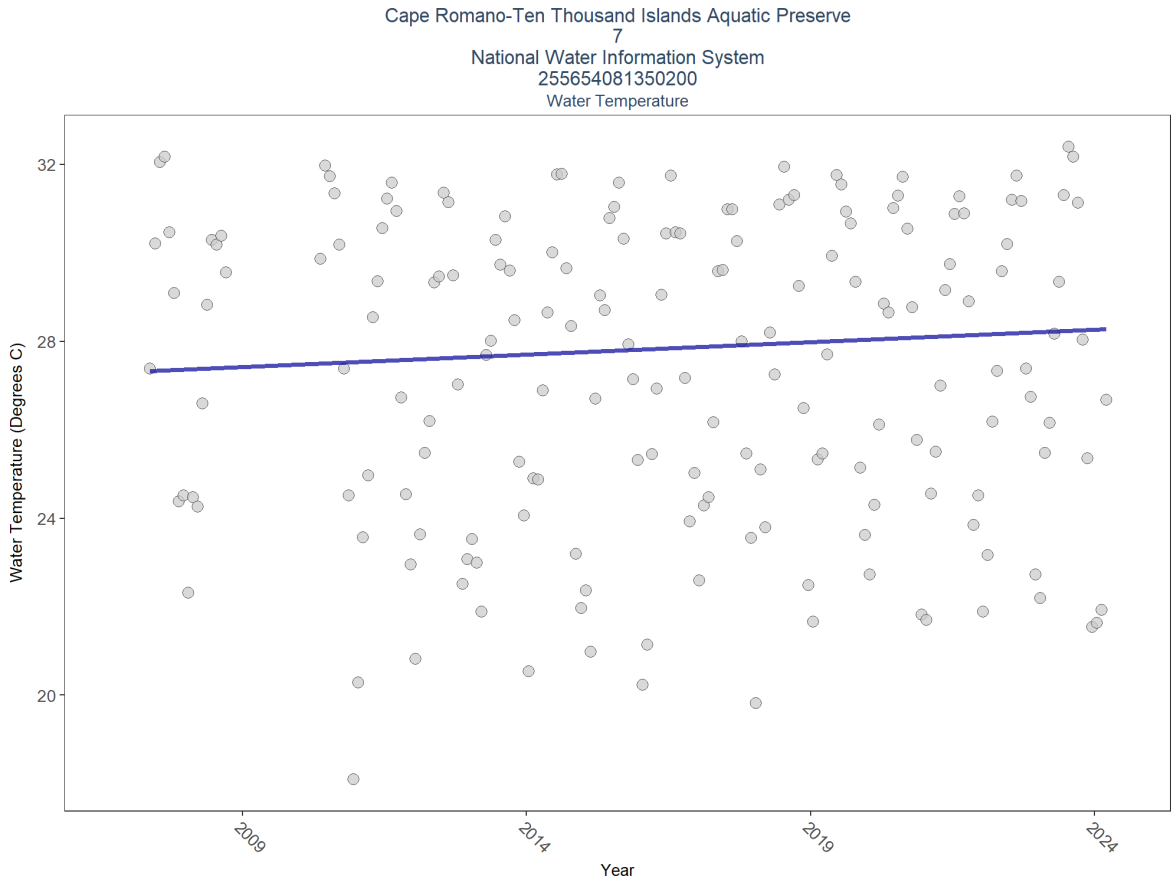


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	6586	18	28.3	TRUE	0.2042	0.0001	0.06217804	27.2923	10.291	0.5044	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

255654081350200



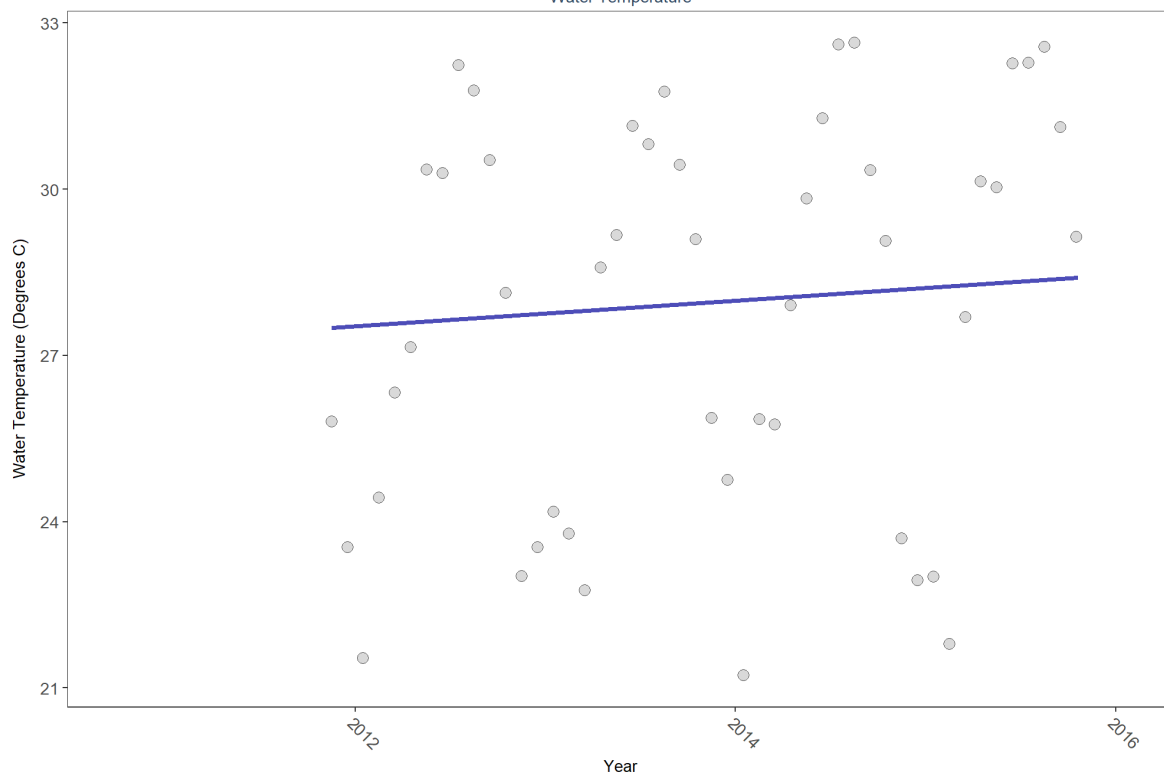
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	6204	17	28	TRUE	0.1867	0.0007	0.05685484	27.30107	9.2882	0.5953	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

255732081363700

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Water Temperature

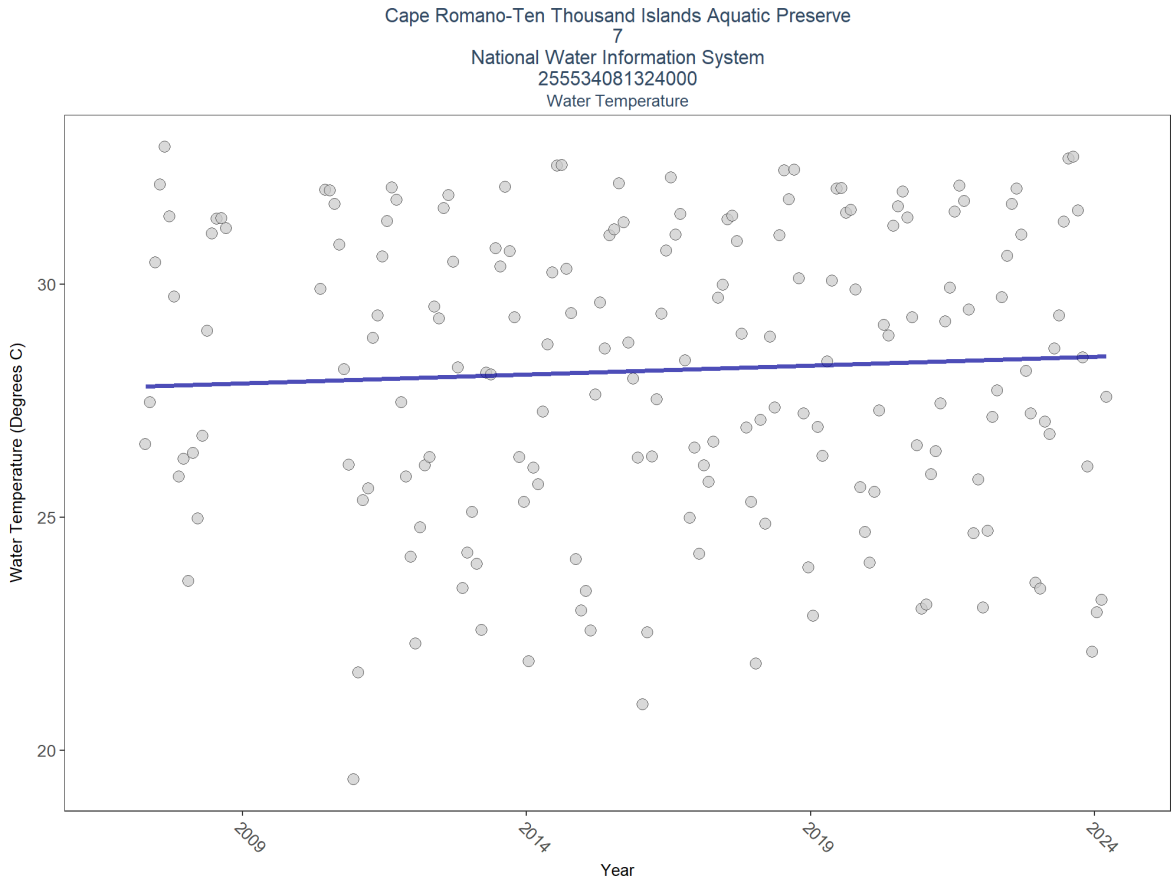


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	1435	5	28.4	TRUE	0.2361	0.1149	0.2306452	27.2975	7.0645	0.7938	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

255534081324000

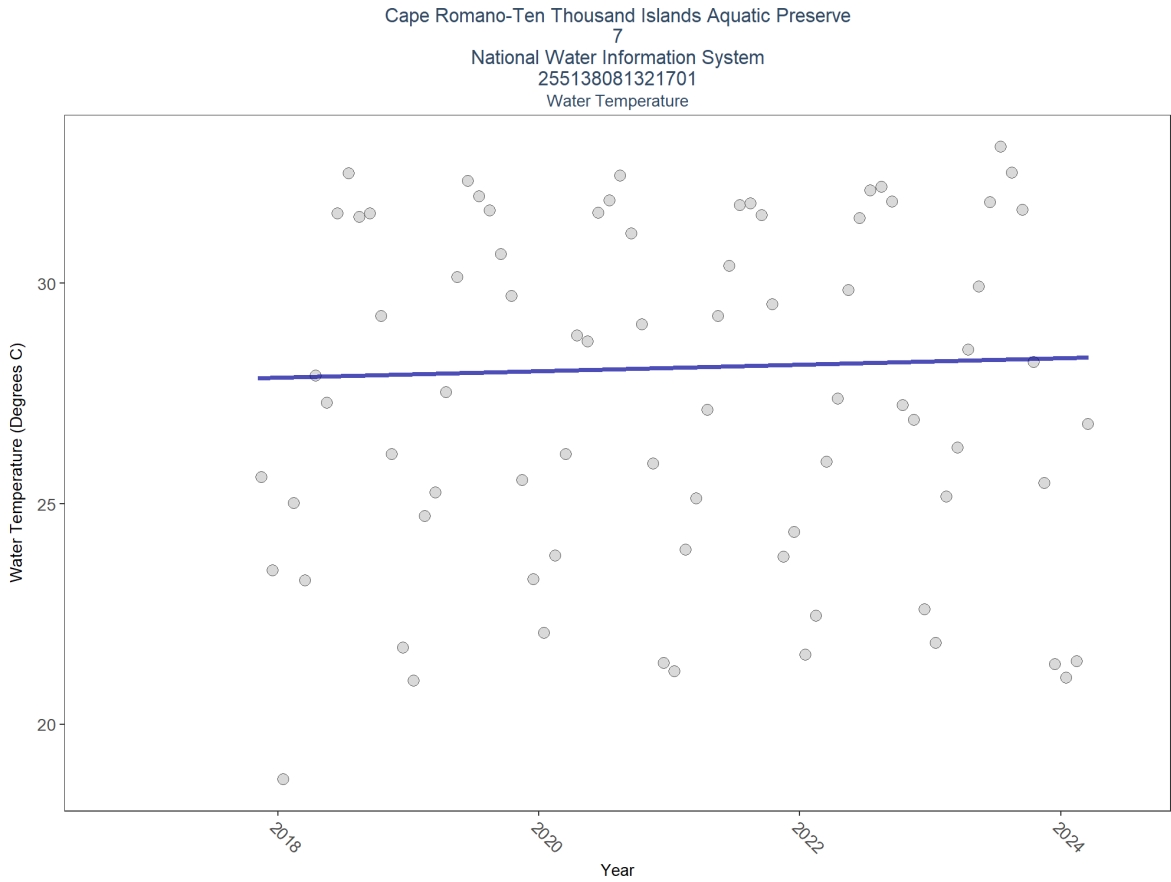


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	6351	17	28.7	TRUE	0.1566	0.0044	0.03768678	27.80044	7.124	0.789	1

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

255138081321701



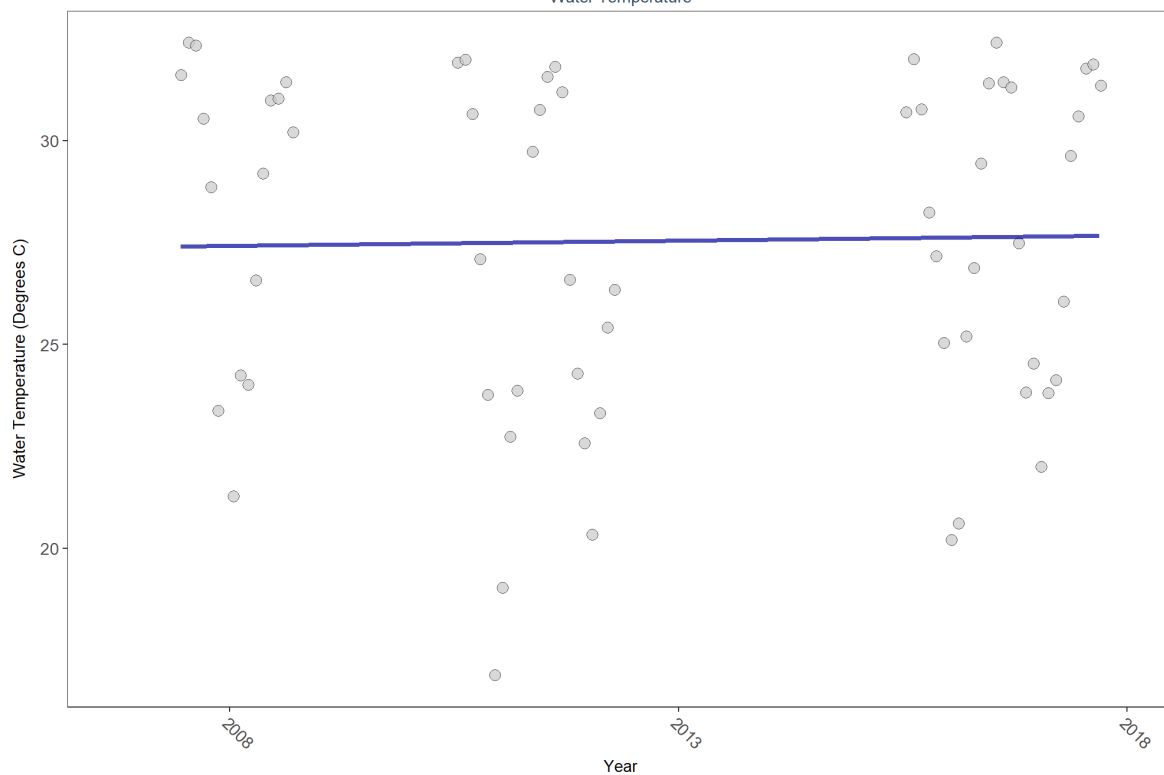
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	2303	8	27.9	TRUE	0.1013	0.3539	0.07347073	27.79418	17.7737	0.087	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

255123081321300

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National Water Information System
255123081321300
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RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
surface	1818	8	28.2	TRUE	0.0952	0.4183	0.0262963	27.38935	14.4616	0.2085	0

$p < 0.00005$ appear as 0 due to rounding.

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

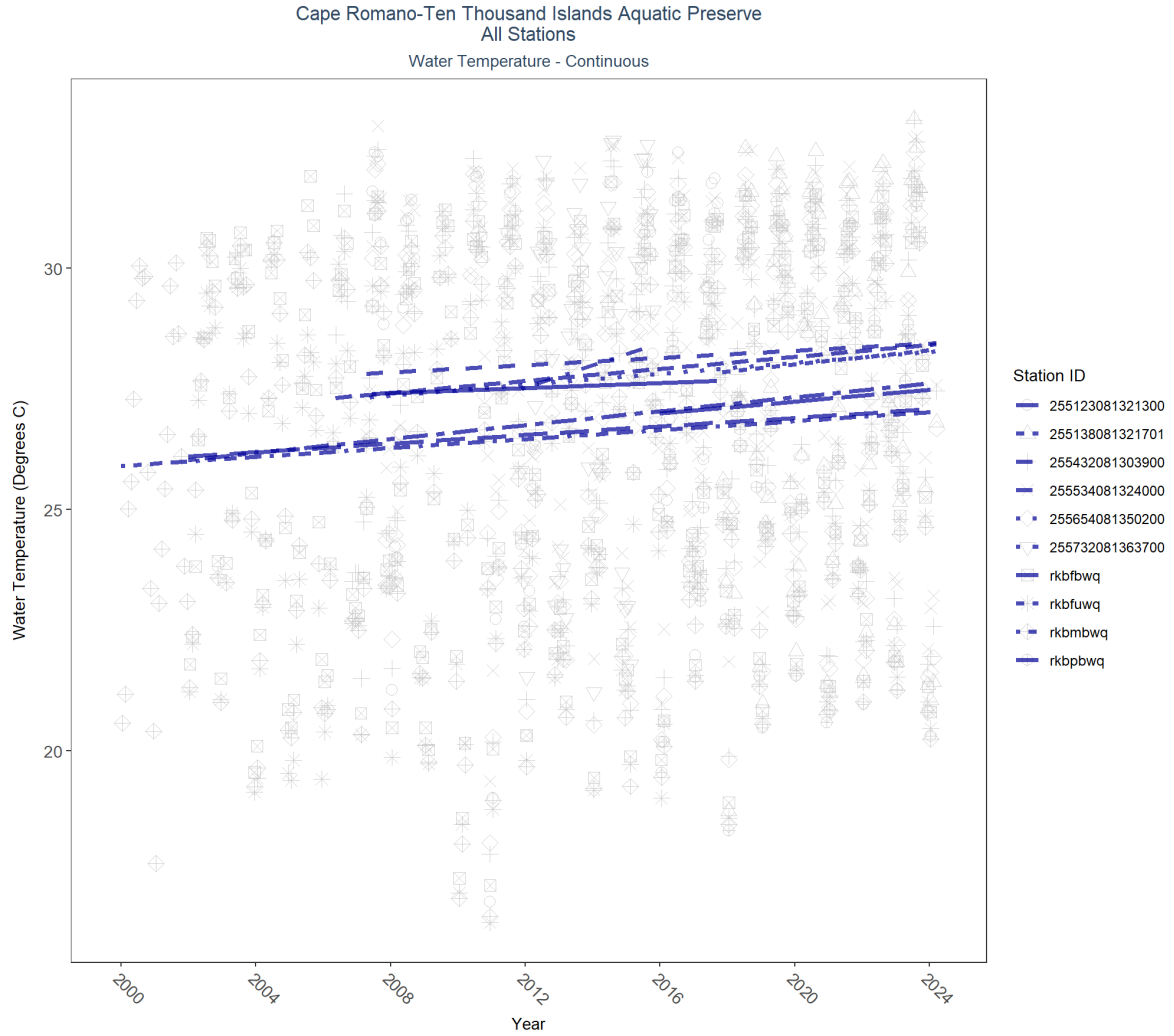


Table 6: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
rkmbwbq	692233	25	2000 - 2024	26.8	0.25	25.91	0.05	0.0000
rkbpbwq	268436	9	2016 - 2024	27.4	0.11	27	0.06	0.2068
rkbfwbq	648515	23	2002 - 2024	27.0	0.23	26.11	0.04	0.0000
rkbfuwq	659552	23	2002 - 2024	26.9	0.28	26.03	0.07	0.0000
255432081303900	6586	18	2006 - 2024	28.3	0.2	27.29	0.06	0.0001
255654081350200	6204	17	2007 - 2024	28.0	0.19	27.3	0.06	0.0007

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
255732081363700	1435	5	2011 - 2015	28.4	0.24	27.3	0.23	0.1149
255443081314700	2011	4	2007 - 2011	29.3	-	-	-	-
255534081324000	6351	17	2007 - 2024	28.7	0.16	27.8	0.04	0.0044
255532081314300	906	3	2009 - 2011	29.3	-	-	-	-
255138081321701	2303	8	2017 - 2024	27.9	0.1	27.79	0.07	0.3539
255123081321300	1818	8	2007 - 2017	28.2	0.1	27.39	0.03	0.4183