

Guana Tolomato Matanzas National Estuarine Research Reserve

SEACAR Discrete Water Quality Analysis

Last compiled on 26 June, 2024

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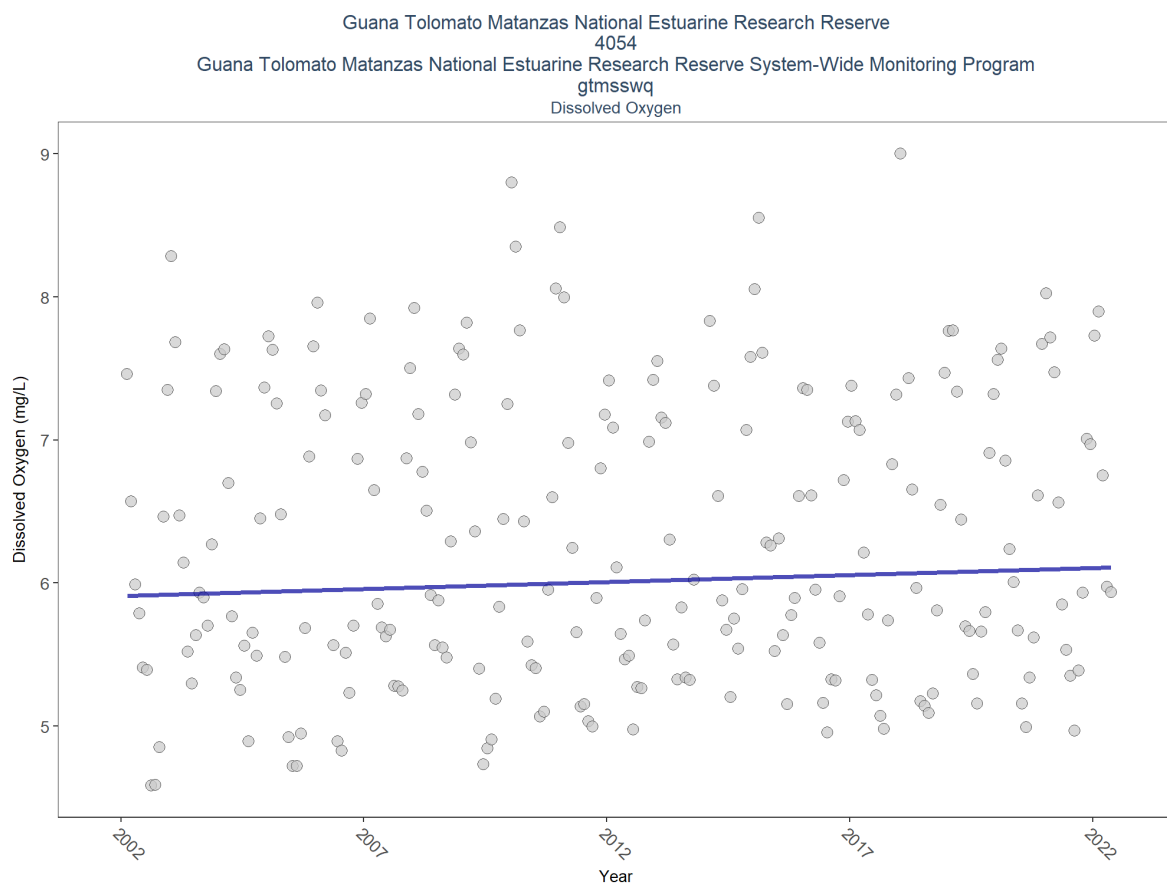
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Parameters

Dissolved Oxygen

gtmsswq



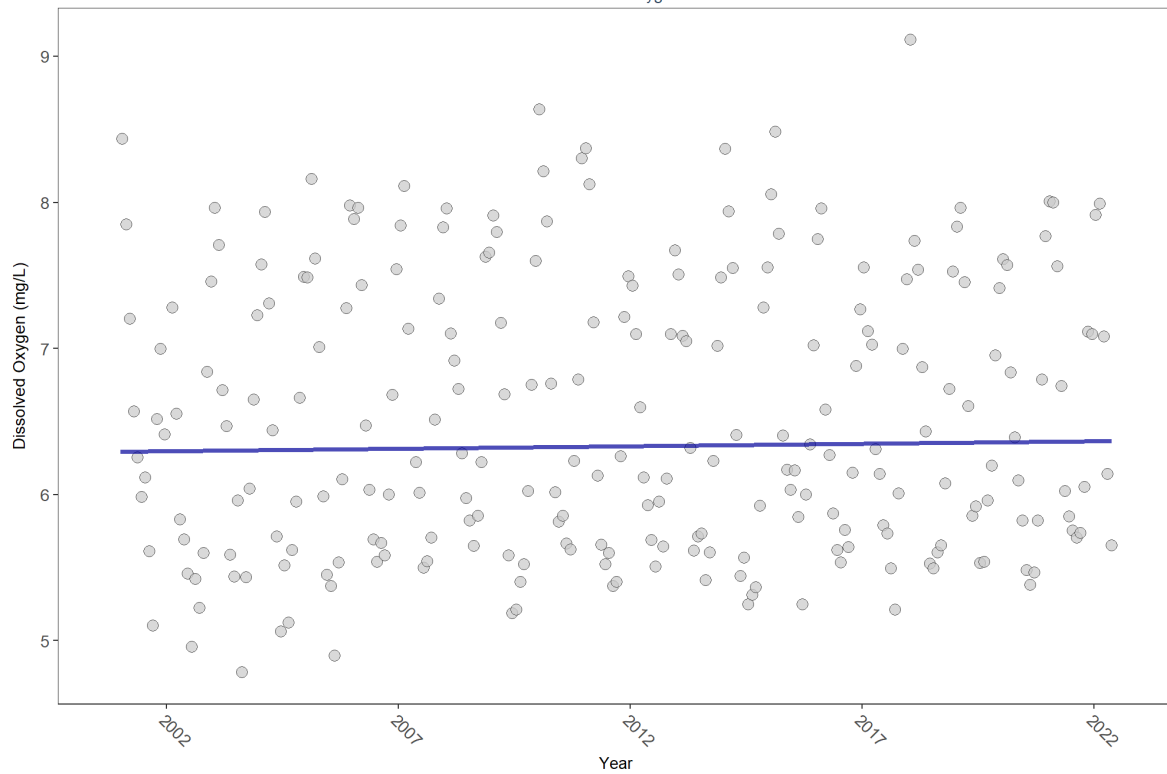
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	573658	21	6.3	TRUE	0.1383	0.0026	0.009828629	5.91074	9.954	0.5345	1

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

SennIntercept is intercept value at beginning of record for monitoring location

gtmfmwq

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Guana Tolomato Matanzas National Estuarine Research Reserve System-Wide Monitoring Program
gtmfmwq
Dissolved Oxygen



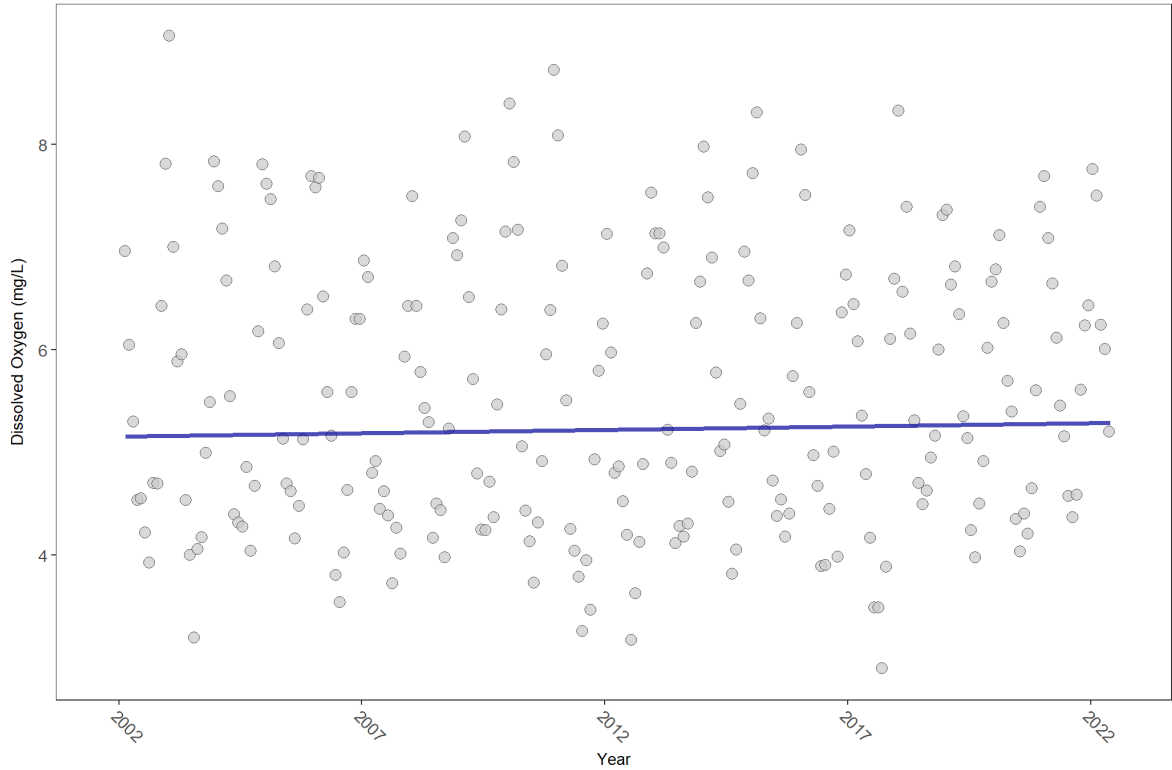
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	596140	22	6.5	TRUE	0.0561	0.2176	0.003407322	6.292628	5.3156	0.9149	0

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

SennIntercept is intercept value at beginning of
record for monitoring location

gtmpcwq

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gtmpcwq
Dissolved Oxygen



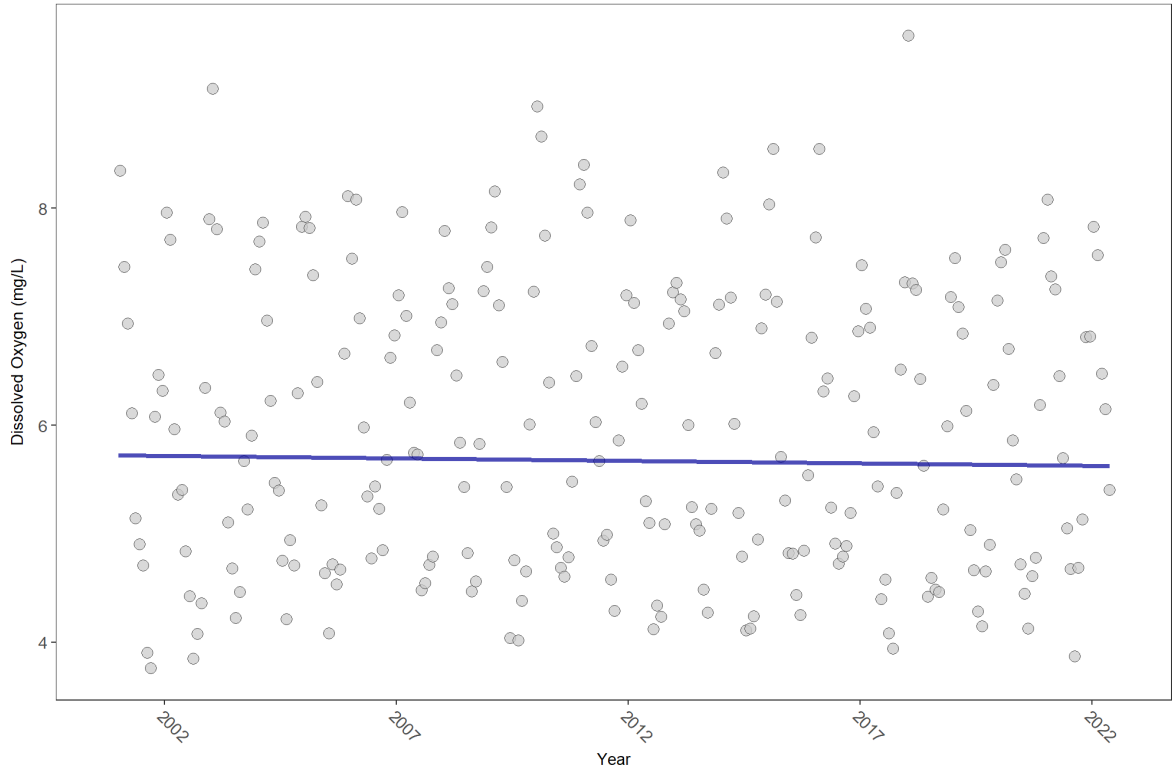
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	600043	21	5.5	TRUE	0.0468	0.2935	0.006489737	5.157244	15.2417	0.1717	0

p < 0.00005 appear as 0 due to rounding.

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

gtmpiwq

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gtmpiwq
Dissolved Oxygen



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	576064	22	5.9	TRUE	-0.0485	0.2940	-0.004492187	5.721386	3.1878	0.988	0

p < 0.00005 appear as 0 due to rounding.

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

All Stations Combined

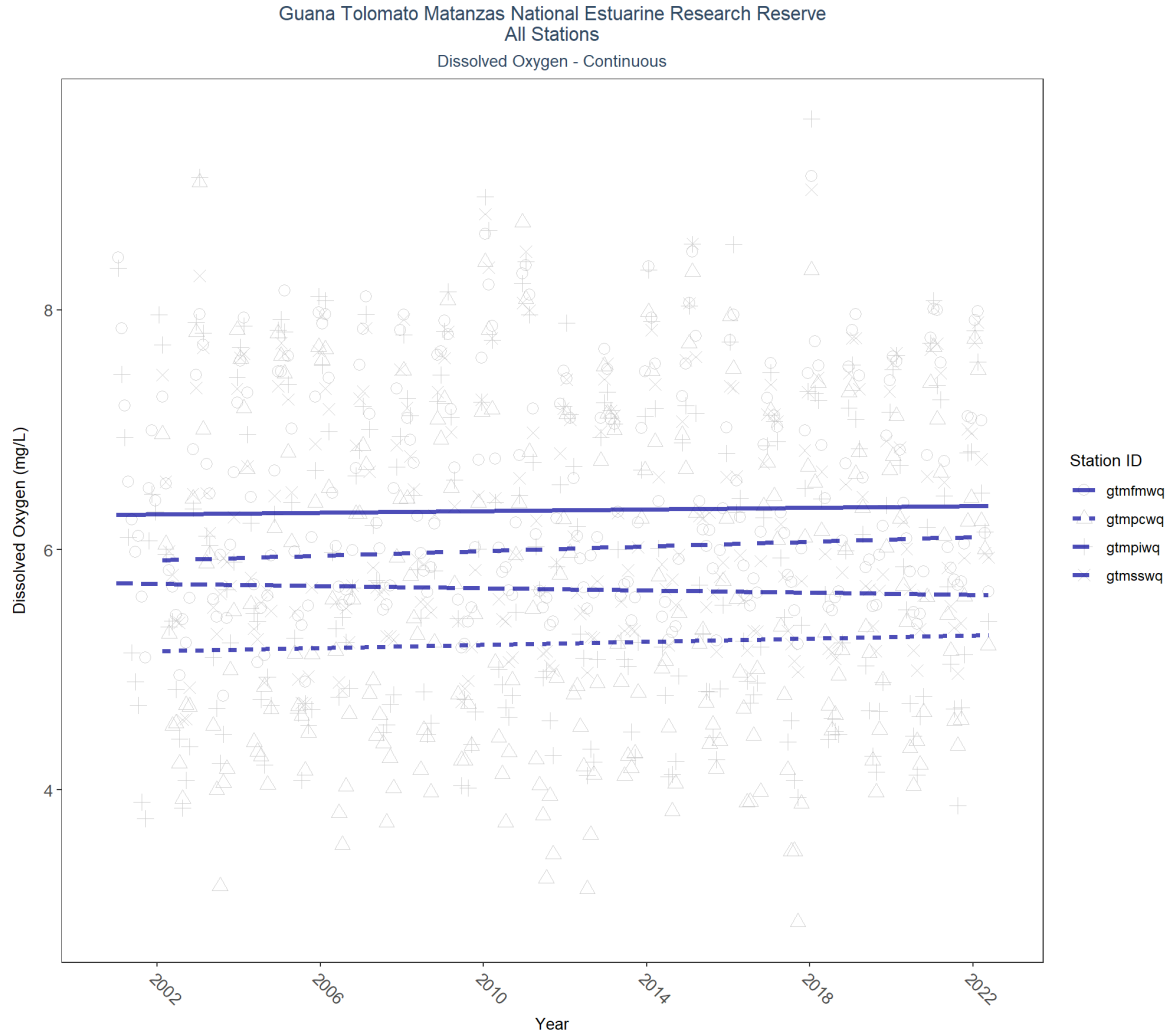
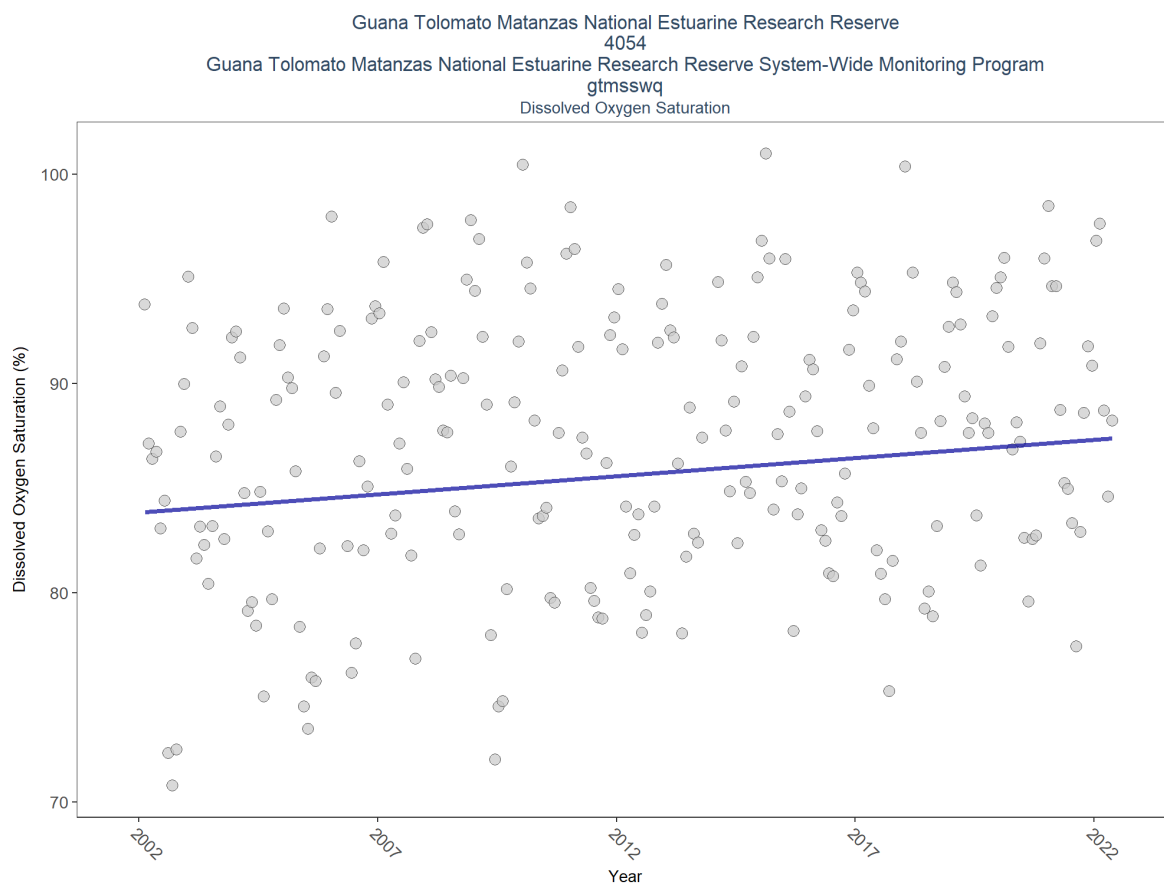


Table 1: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
gtmsswq	573658	21	2002 - 2022	6.3	0.14	5.91	0.01	0.0026
gtmfmwq	596140	22	2001 - 2022	6.5	0.06	6.29	0.00	0.2176
gtmpcwq	600043	21	2002 - 2022	5.5	0.05	5.16	0.01	0.2935
gtmpiwiq	576064	22	2001 - 2022	5.9	-0.05	5.72	0.00	0.2940

Dissolved Oxygen Saturation

gtmsswq



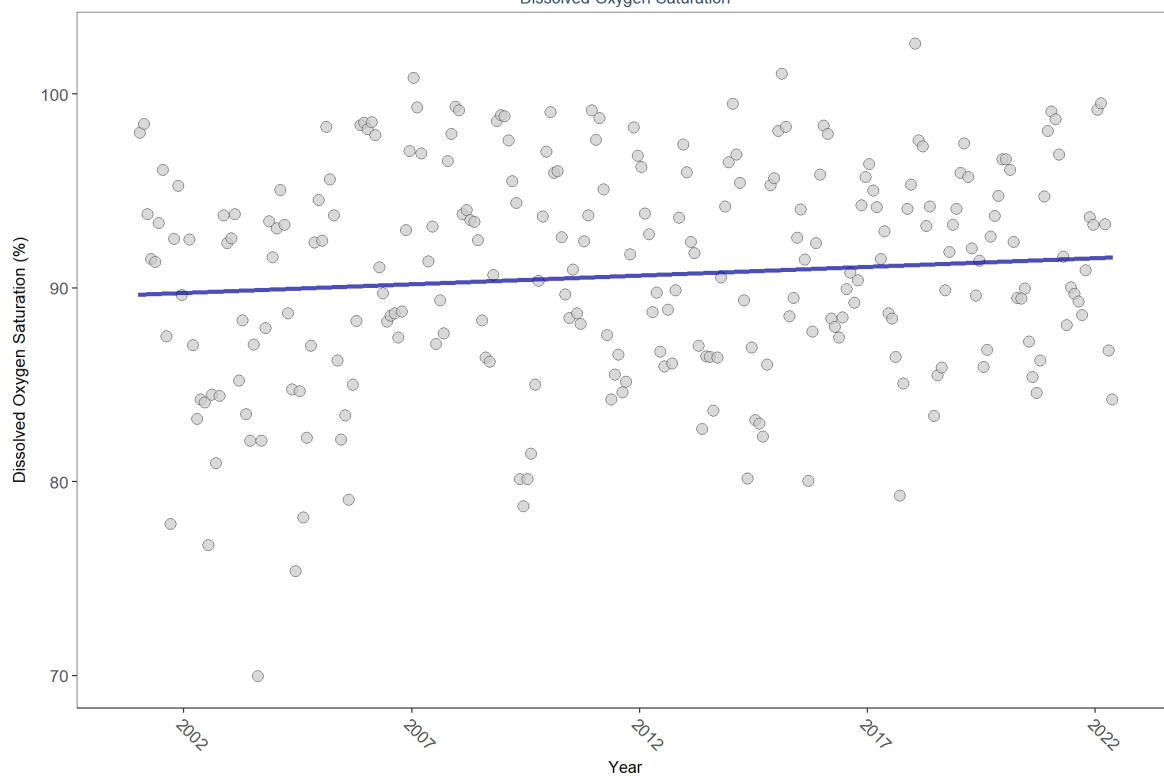
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	579594	21	89.6	TRUE	0.2066	0.0000	0.1737915	83.84279	6.9462	0.8034	1

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

SennIntercept is intercept value at beginning of record for monitoring location

gtmfmwq

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gtmfmwq
Dissolved Oxygen Saturation



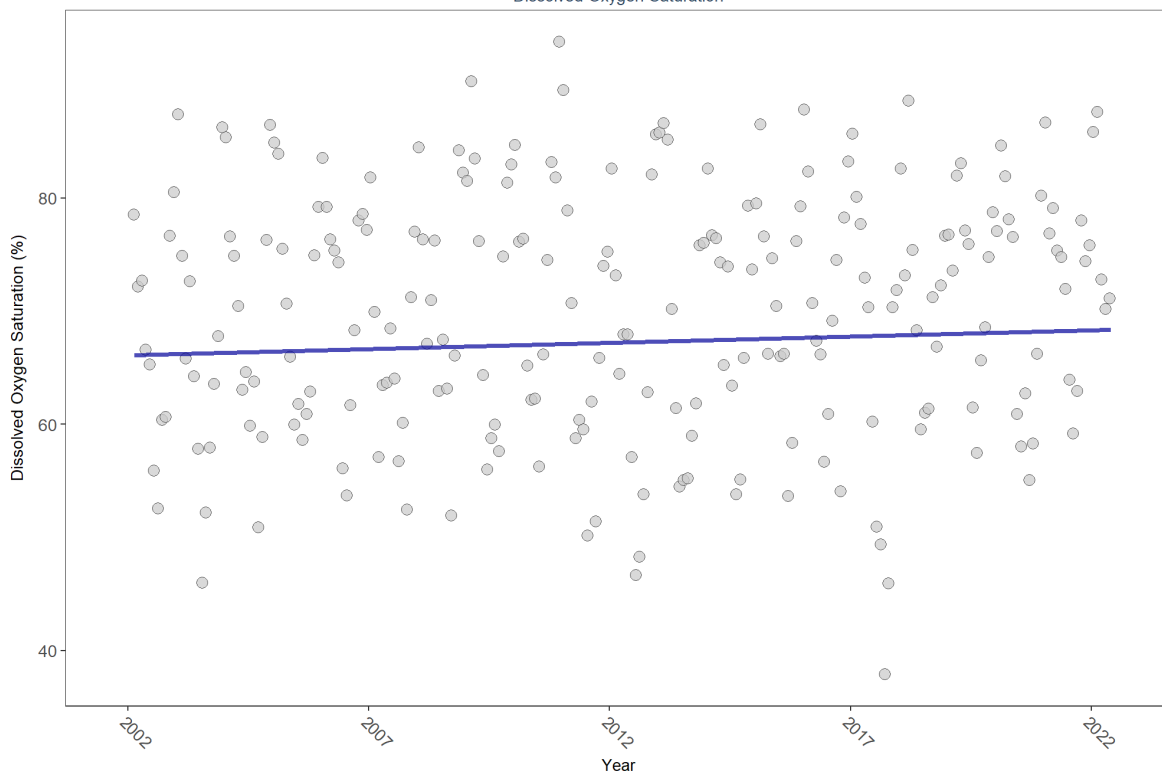
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	603708	22	92.6	TRUE	0.1244	0.0062	0.08940822	89.65478	6.8755	0.8091	1

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

SennIntercept is intercept value at beginning of
record for monitoring location

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gtmpcwq
Dissolved Oxygen Saturation



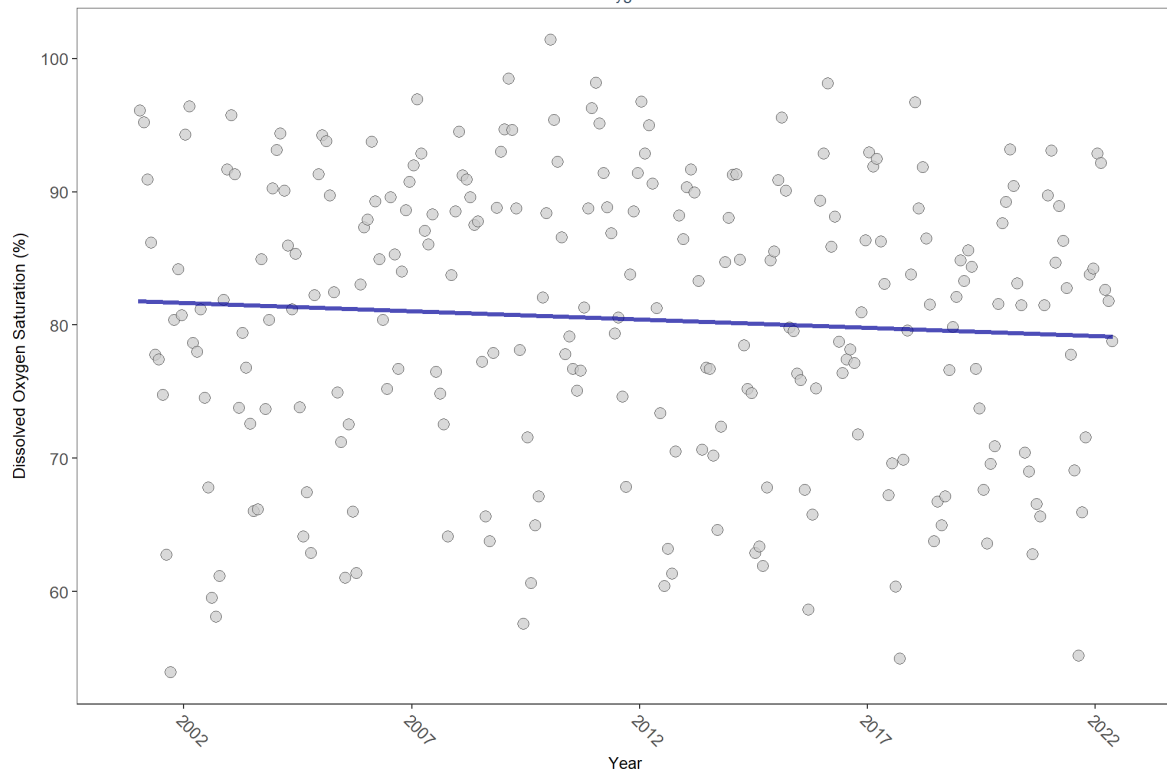
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	600043	21	71.1	TRUE	0.0696	0.1183	0.1098156	66.10236	16.4188	0.1263	0

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

SennIntercept is intercept value at beginning of record for monitoring location

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gtmpiwq
Dissolved Oxygen Saturation



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	580954	22	83.1	TRUE	-0.1098	0.0155	-0.1238298	81.7863	7.889	0.7232	-1

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

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

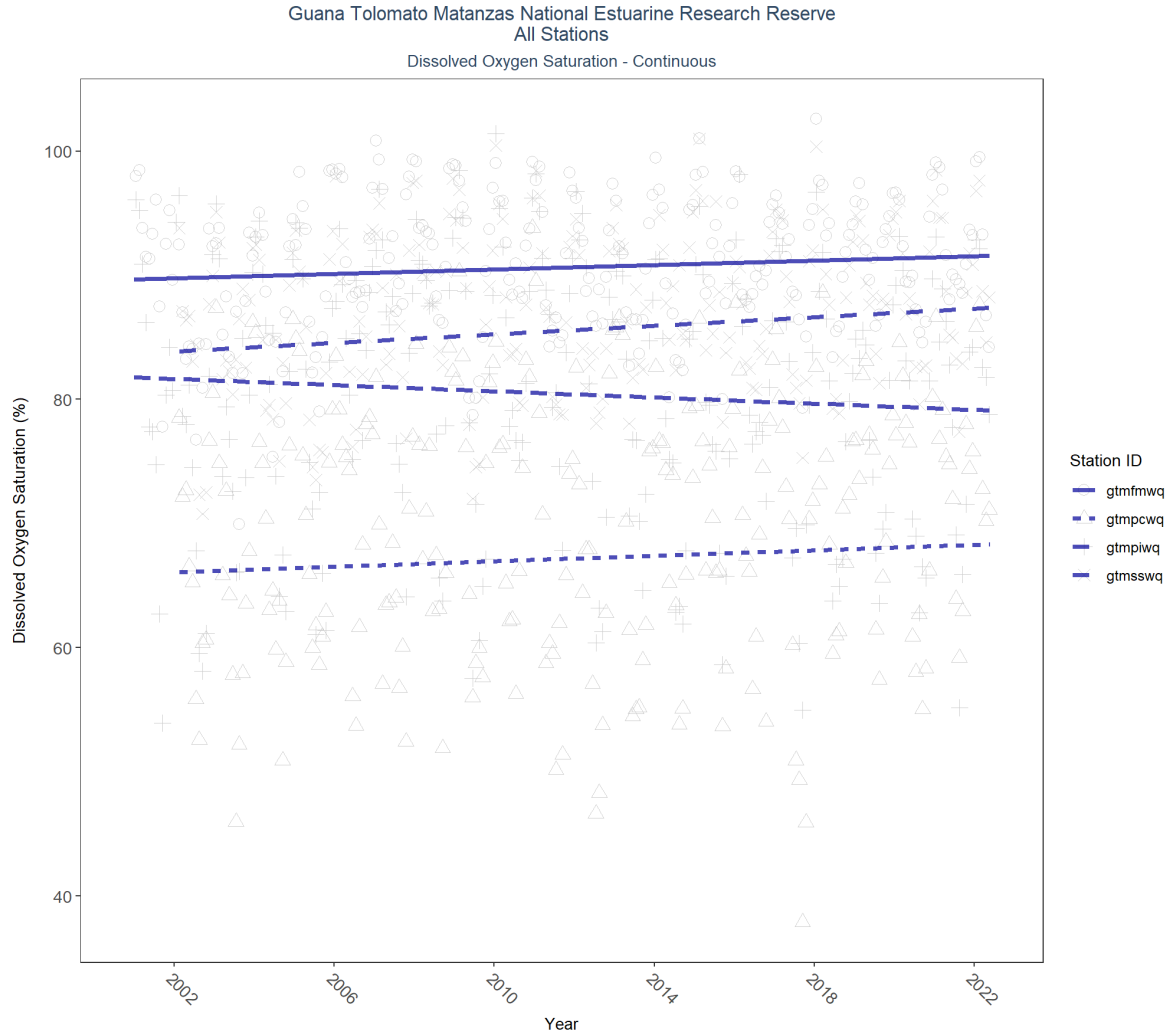
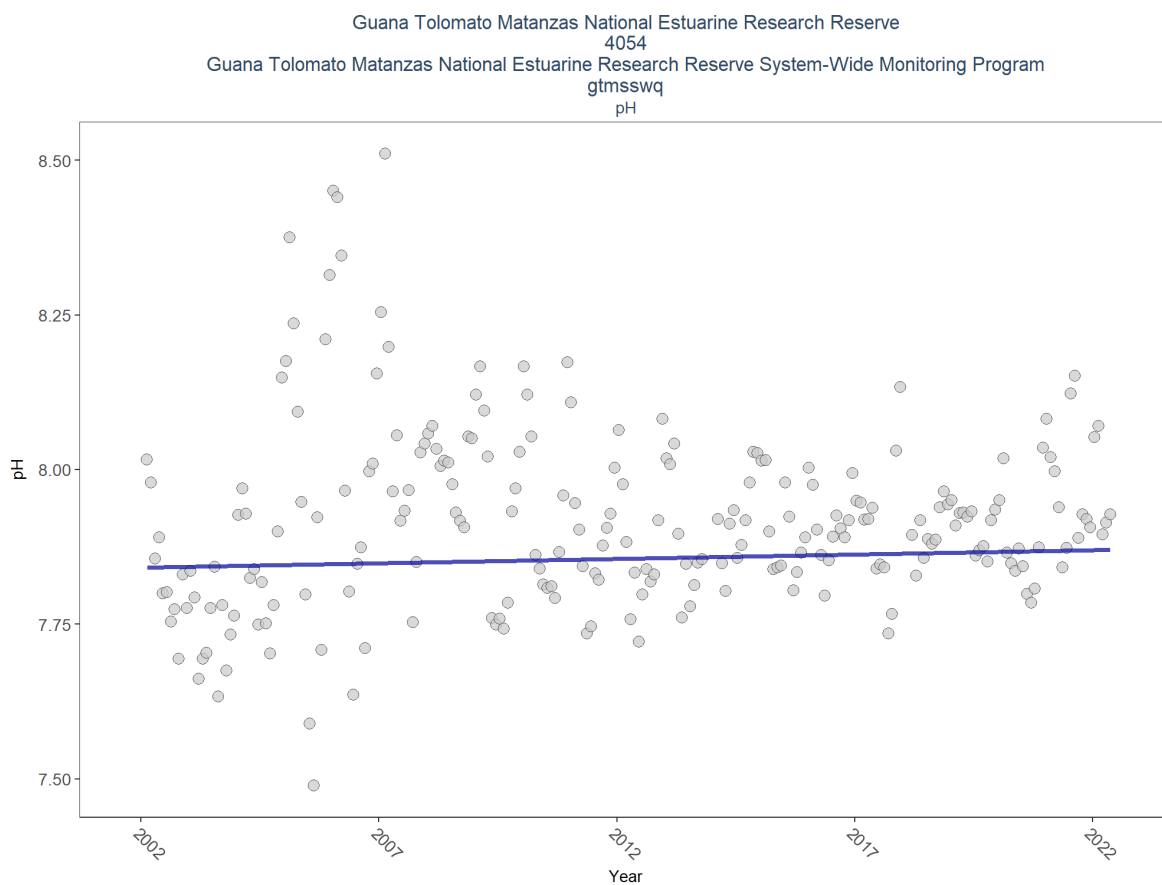


Table 2: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
gtmsswq	579594	21	2002 - 2022	89.6	0.21	83.84	0.17	0.0000
gtmfmwq	603708	22	2001 - 2022	92.6	0.12	89.65	0.09	0.0062
gtmpcwq	600043	21	2002 - 2022	71.1	0.07	66.10	0.11	0.1183
gtmpiwiq	580954	22	2001 - 2022	83.1	-0.11	81.79	-0.12	0.0155

pH

gtmsswq



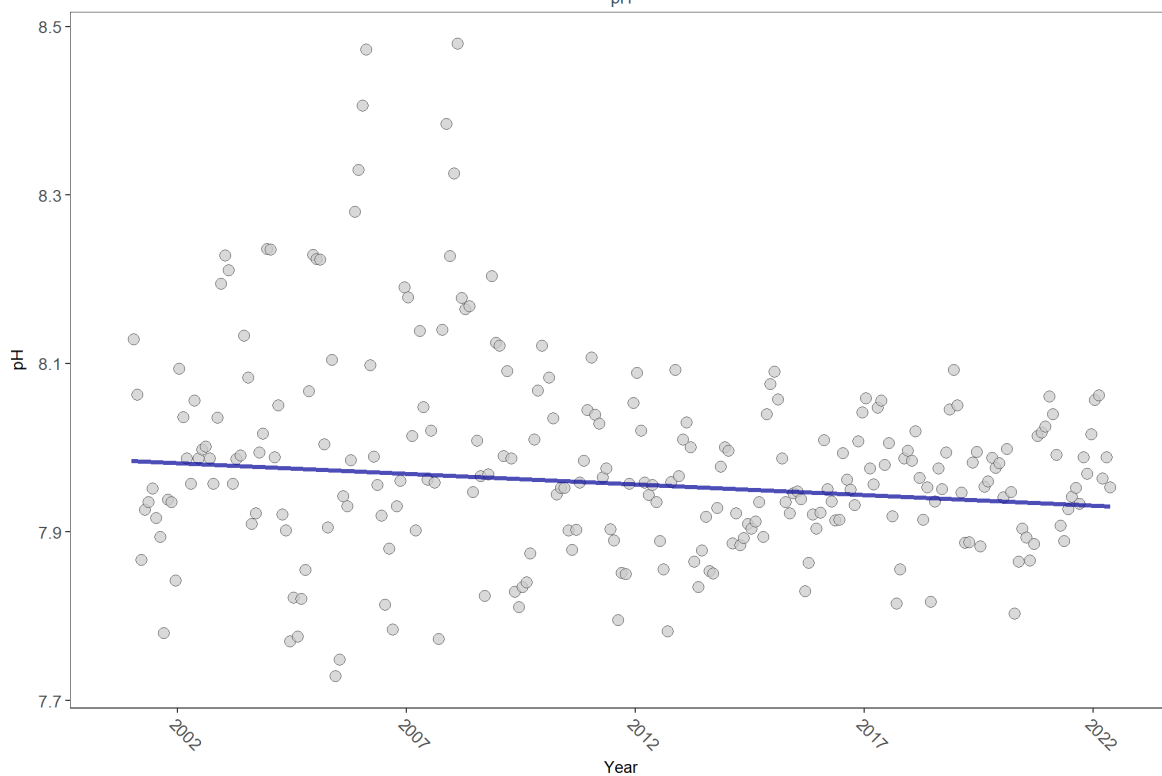
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	551772	21	7.9	TRUE	0.0595	0.1882	0.001417057	7.841643	25.1518	0.0087	0

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

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

gtmfmwq

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gtmfmwq
pH



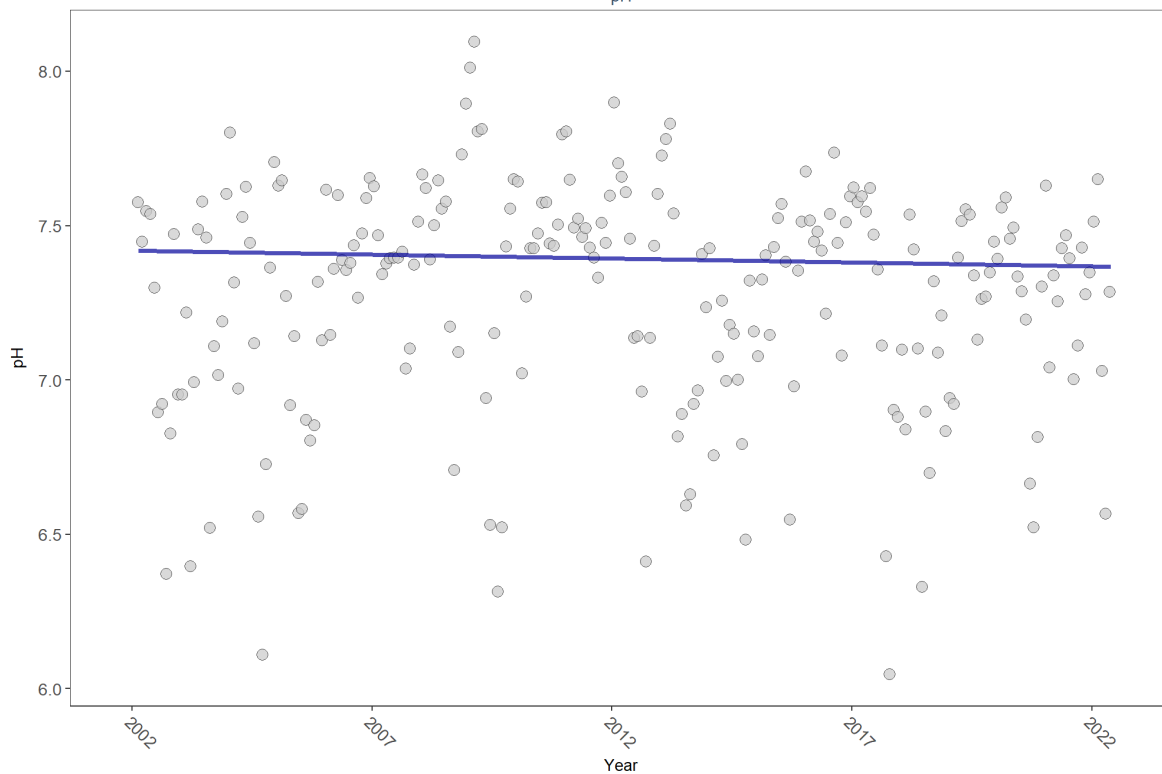
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	581432	22	8	TRUE	-0.1354	0.0025	-0.002528361	7.984628	23.4199	0.0154	-1

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

SennIntercept is intercept value at beginning of
record for monitoring location

gtmpcwq

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gtmpcwq
pH

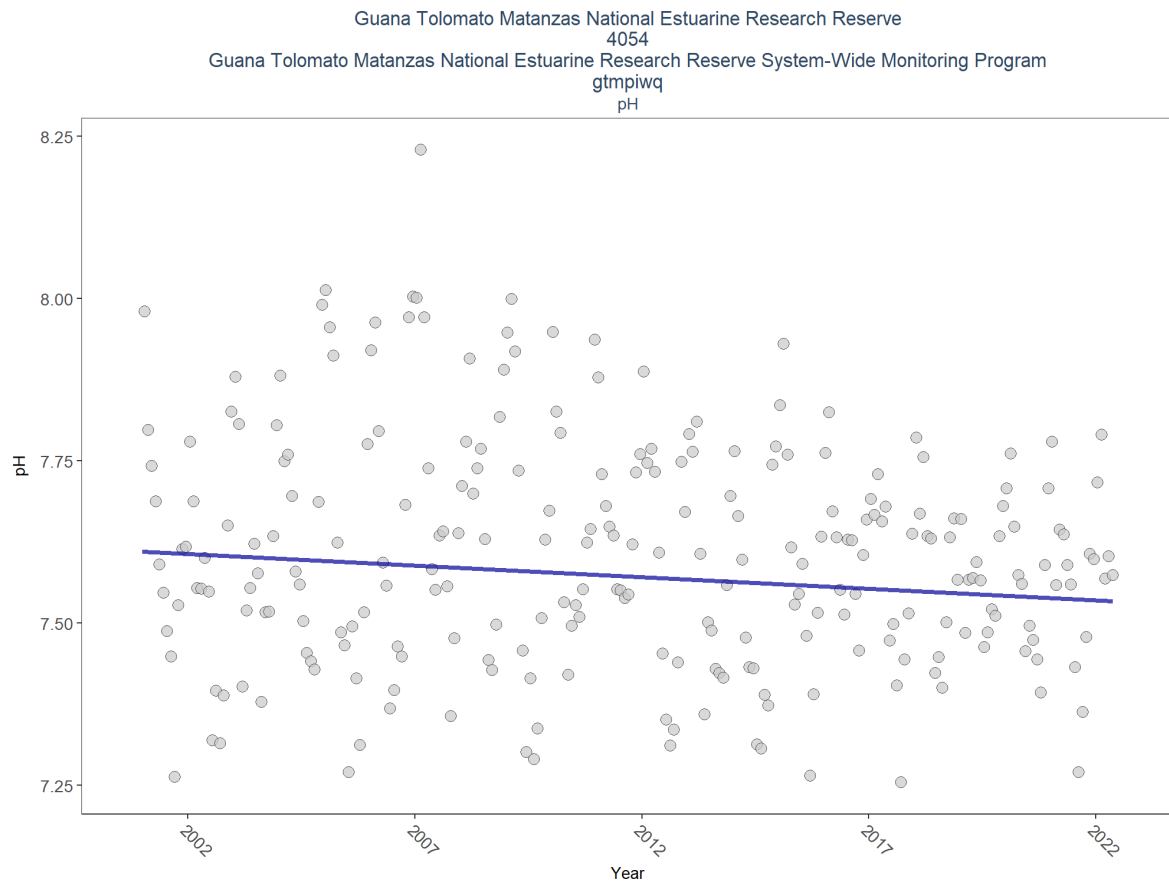


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	589314	21	7.4	TRUE	-0.0478	0.3107	-0.002579871	7.419372	12.4426	0.3313	0

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

SennIntercept is intercept value at beginning of
record for monitoring location

gtmpiwq



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	572116	22	7.6	TRUE	-0.1489	0.0009	-0.003539015	7.609804	13.6578	0.2525	-1

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

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

All Stations Combined

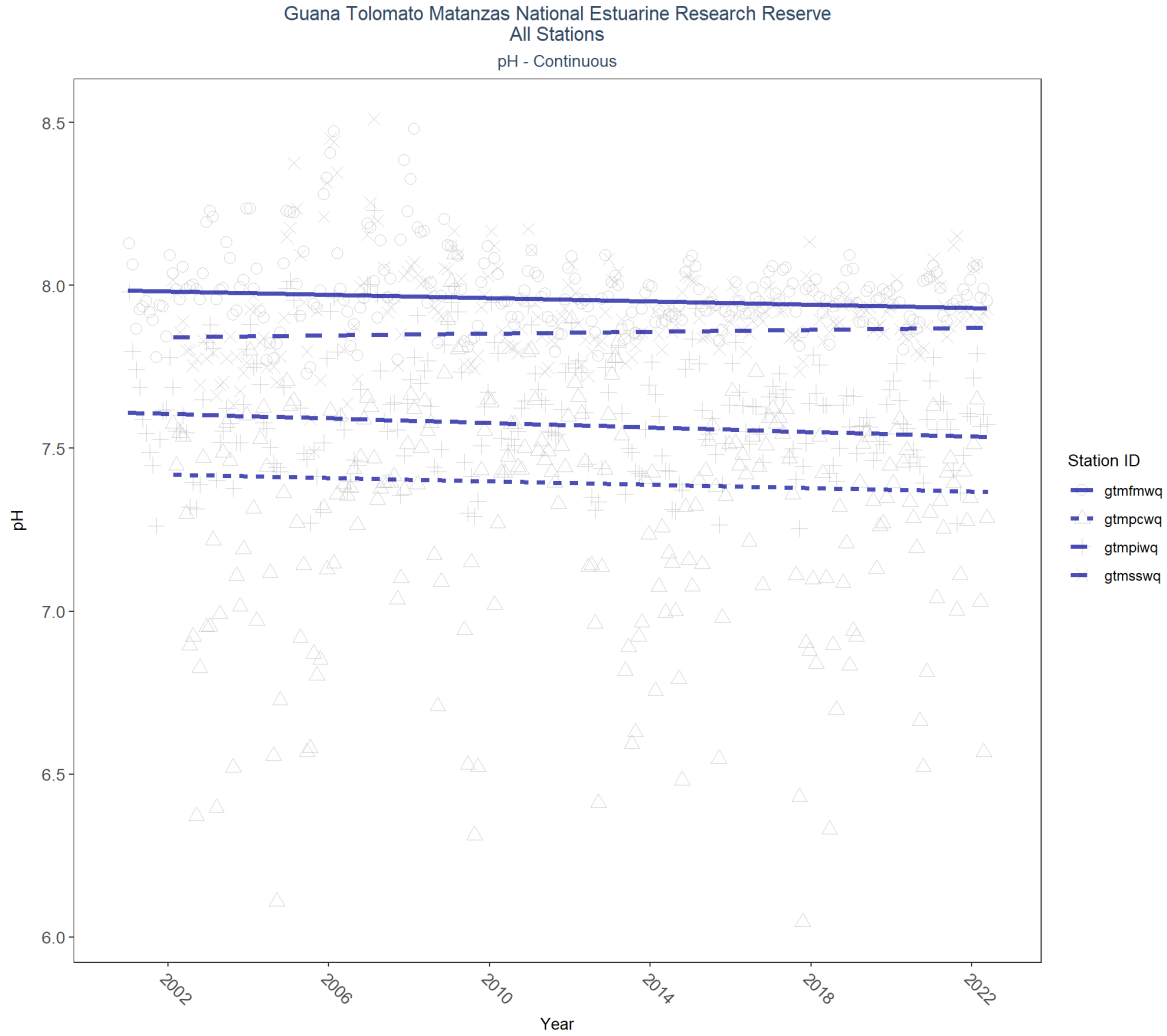
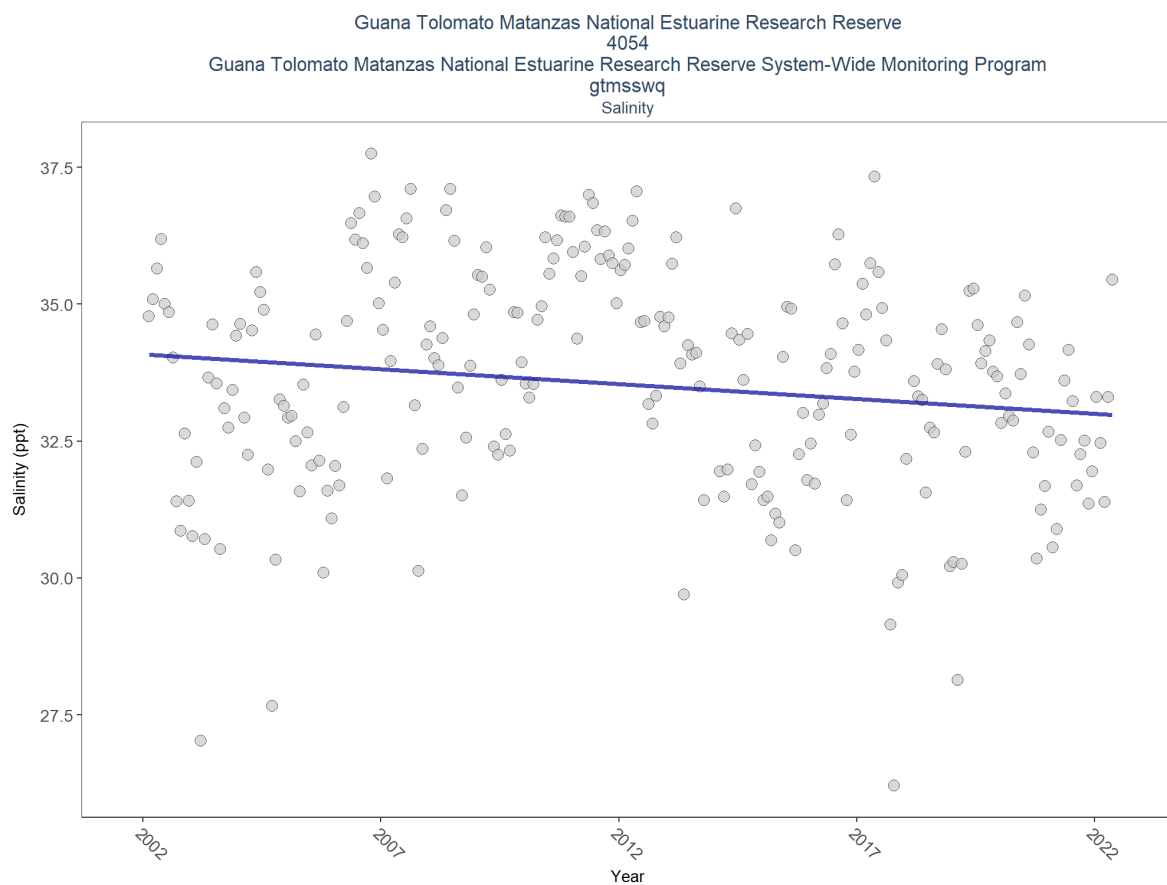


Table 3: Seasonal Kendall-Tau Results for All Stations - pH

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
gtmfsswq	551772	21	2002 - 2022	7.9	0.06	7.84	0	0.1882
gtmfmwq	581432	22	2001 - 2022	8.0	-0.14	7.98	0	0.0025
gtmfpcwq	589314	21	2002 - 2022	7.4	-0.05	7.42	0	0.3107
gtmfpiwq	572116	22	2001 - 2022	7.6	-0.15	7.61	0	0.0009

Salinity

gtmsswq



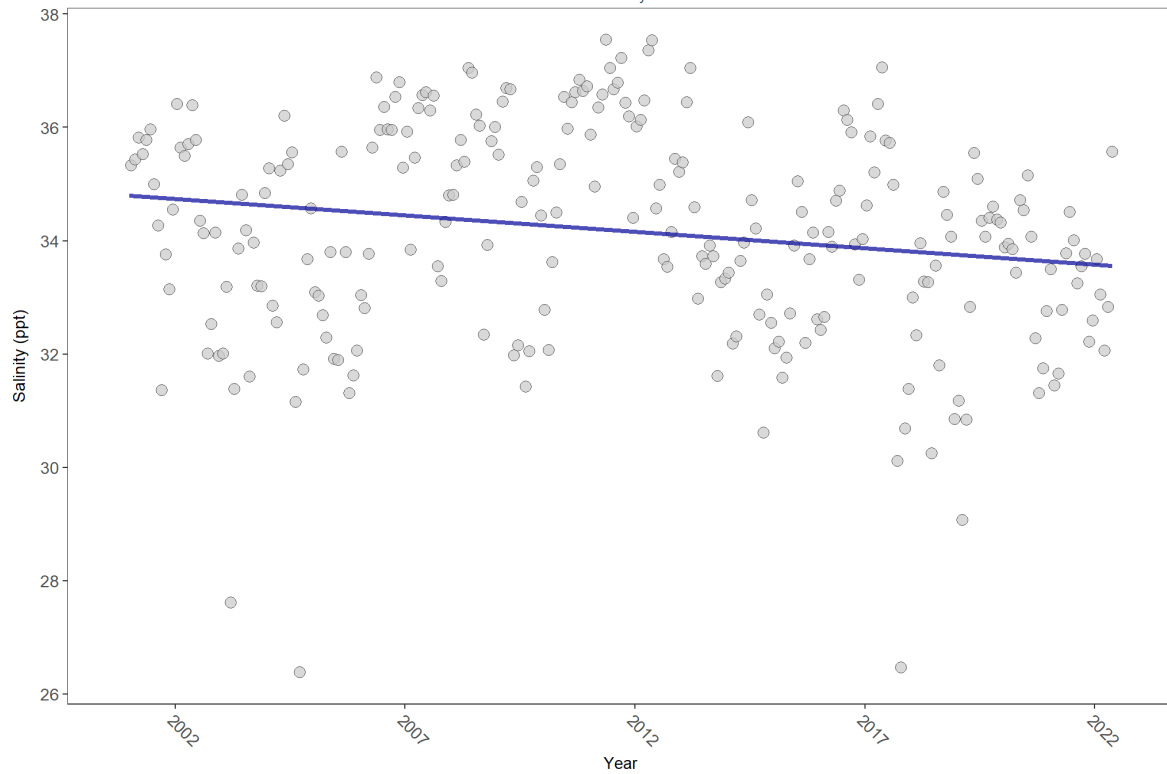
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	559678	21	34	TRUE	-0.0985	0.0379	-0.05414325	34.08232	3.3843	0.9846	-1

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

SennIntercept is intercept value at beginning of record for monitoring location

gtmfmwq

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gtmfmwq
Salinity

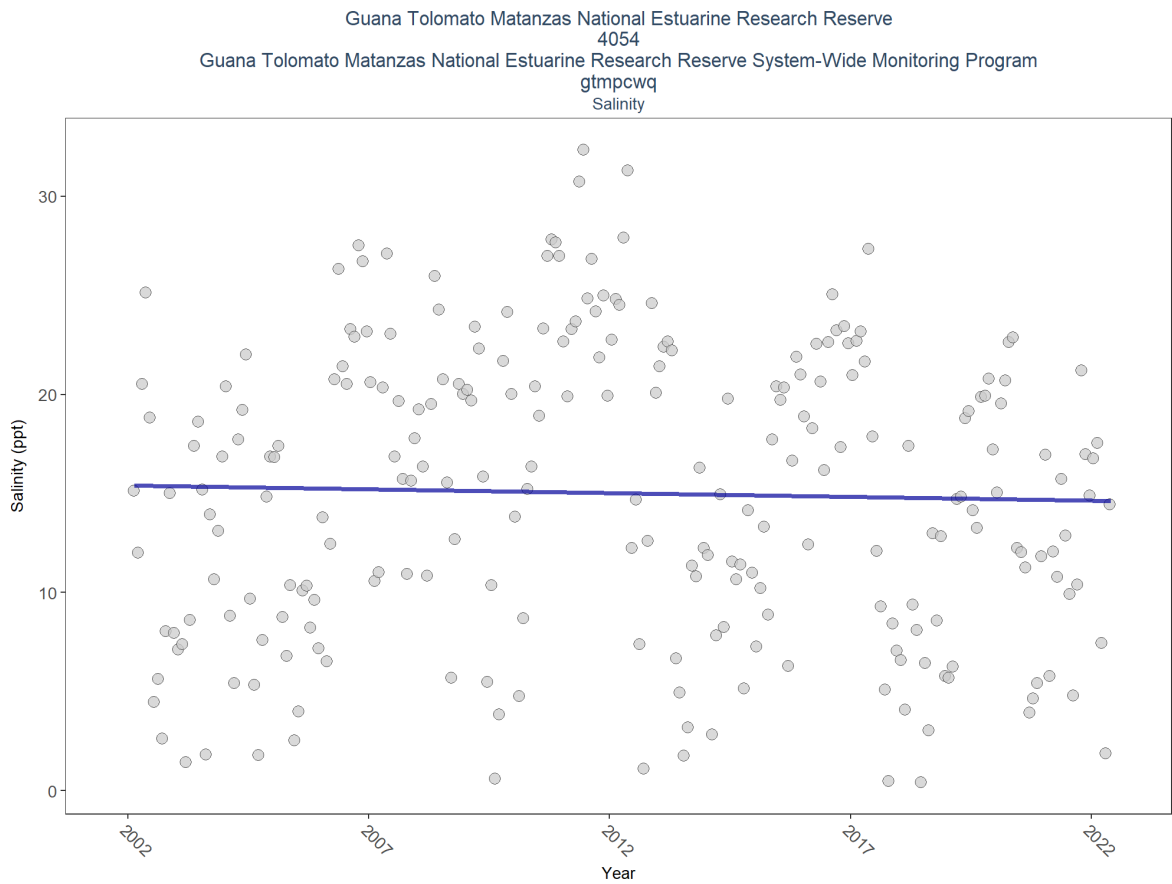


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	588038	22	34.5	TRUE	-0.1326	0.0031	-0.05763067	34.79182	6.197	0.8599	-1

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

SennIntercept is intercept value at beginning of record for monitoring location

gtmpcwq



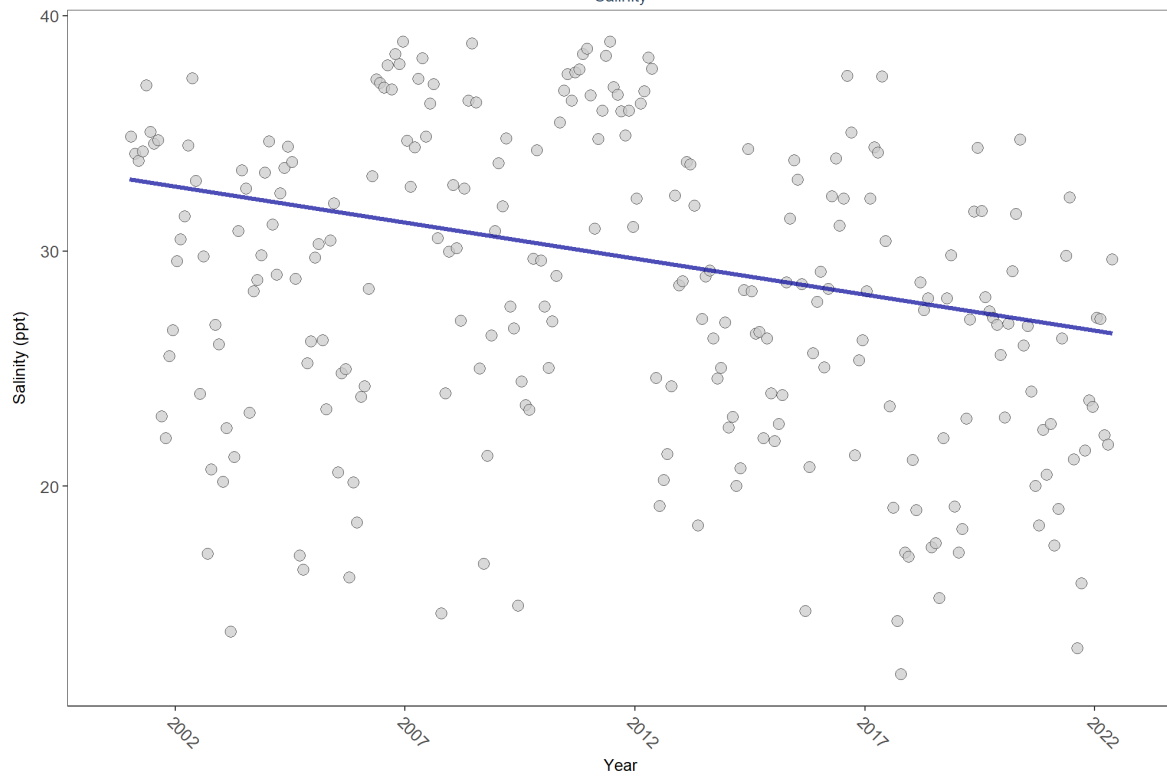
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	606028	21	17	TRUE	-0.02	0.6811	-0.03801027	15.39822	4.7428	0.943	0

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

SennIntercept is intercept value at beginning of record for monitoring location

gtmpiwq

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gtmpiwq
Salinity



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	577716	22	28.3	TRUE	-0.2337	0.0000	-0.3058606	33.03749	4.0445	0.9686	-1

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

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

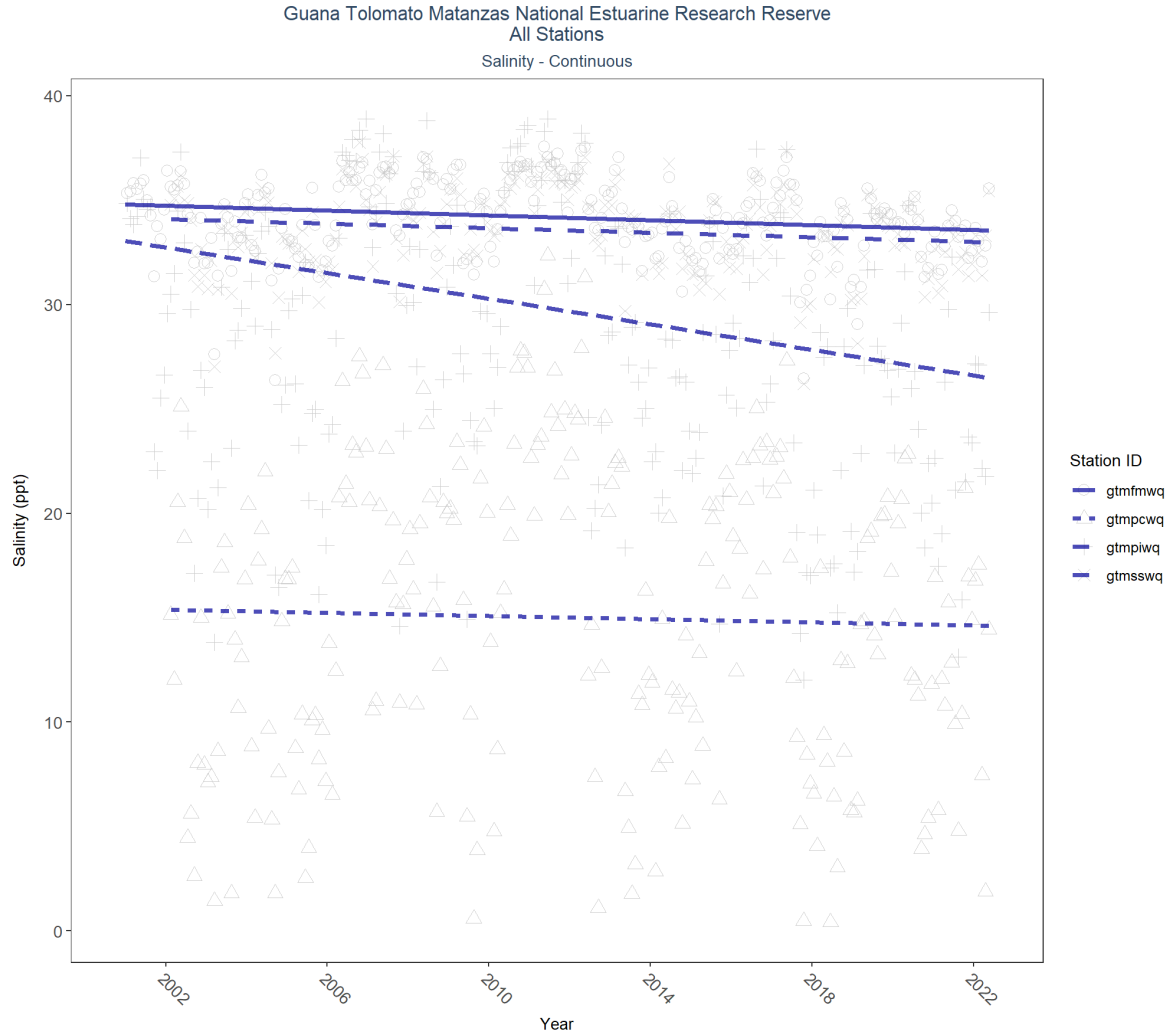


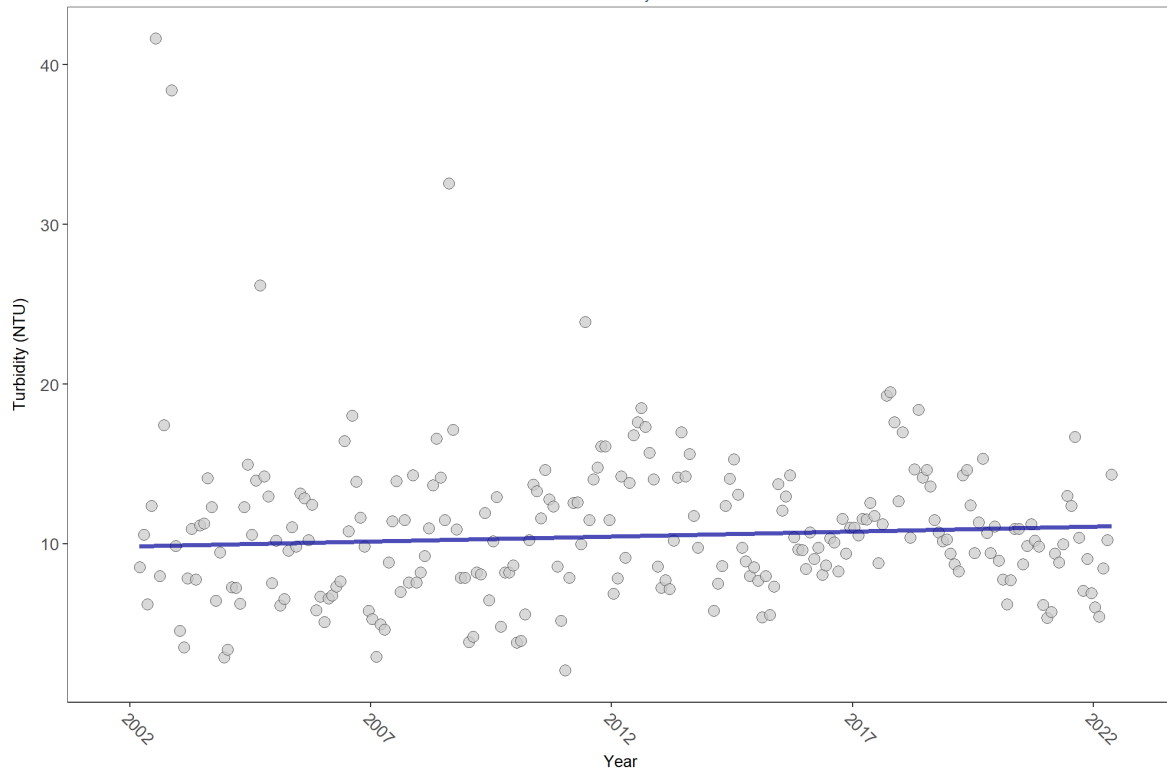
Table 4: Seasonal Kendall-Tau Results for All Stations - Salinity

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
gtmfsswq	559678	21	2002 - 2022	34.00	-0.1	34.08	-0.05	0.0379
gtmfmwq	588038	22	2001 - 2022	34.50	-0.13	34.79	-0.06	0.0031
gtmfpcwq	606028	21	2002 - 2022	17.00	-0.02	15.4	-0.04	0.6811
gtmfpiwq	577716	22	2001 - 2022	28.30	-0.23	33.04	-0.31	0.0000
872-0494	34918	2	2020 - 2021	8.99	-	-	-	-

Turbidity

gtmsswq

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gtmsswq
Turbidity



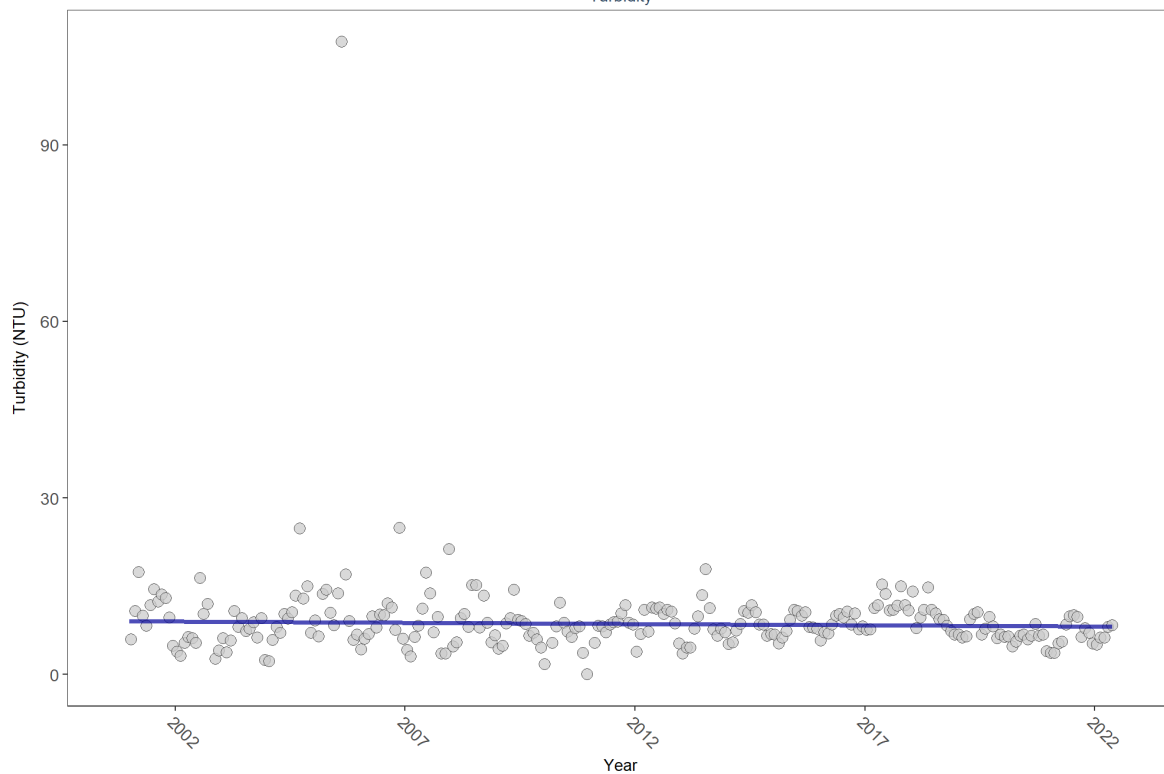
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	548508	21	9	TRUE	0.0706	0.1350	0.06210797	9.829929	14.0481	0.2303	0

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

SennIntercept is intercept value at beginning of record for monitoring location

gtmfmwq

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gtmfmwq
Turbidity



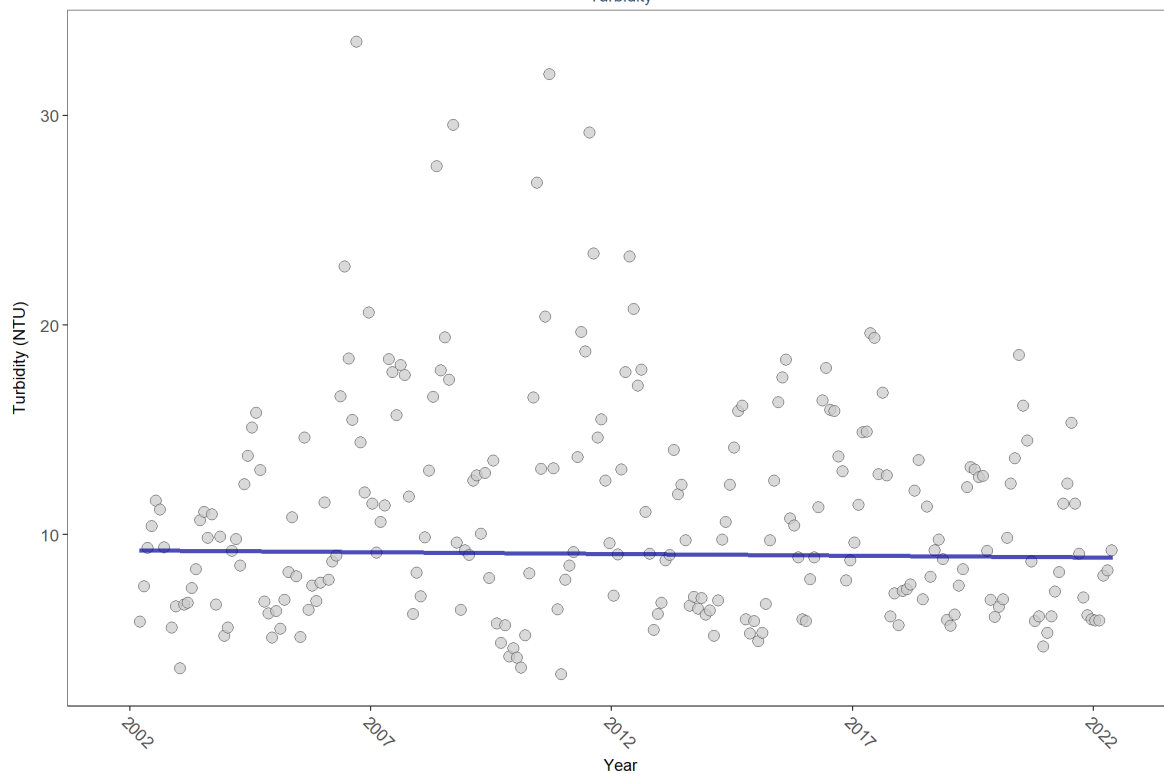
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	588931	22	7	TRUE	-0.0587	0.1966	-0.04031601	9.037476	15.5537	0.1585	0

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

SennIntercept is intercept value at beginning of
record for monitoring location

gtmpcwq

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gtmpcwq
Turbidity

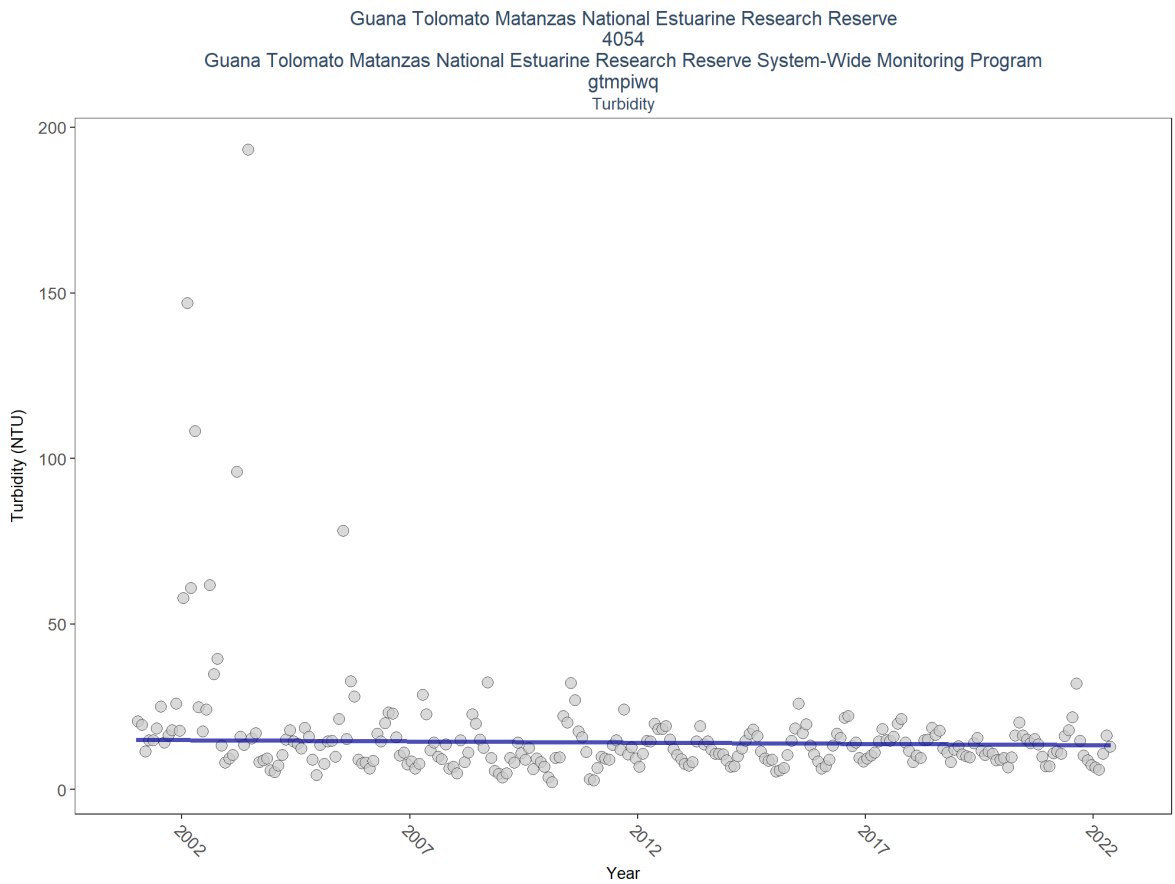


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	584674	21	9	TRUE	-0.0262	0.6048	-0.01675907	9.266042	5.8476	0.8833	0

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

SennIntercept is intercept value at beginning of
record for monitoring location

gtmpiwq



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	552290	22	10	TRUE	-0.0883	0.0496	-0.07148746	14.97332	4.049	0.9685	-1

p < 0.00005 appear as 0 due to rounding.

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

All Stations Combined

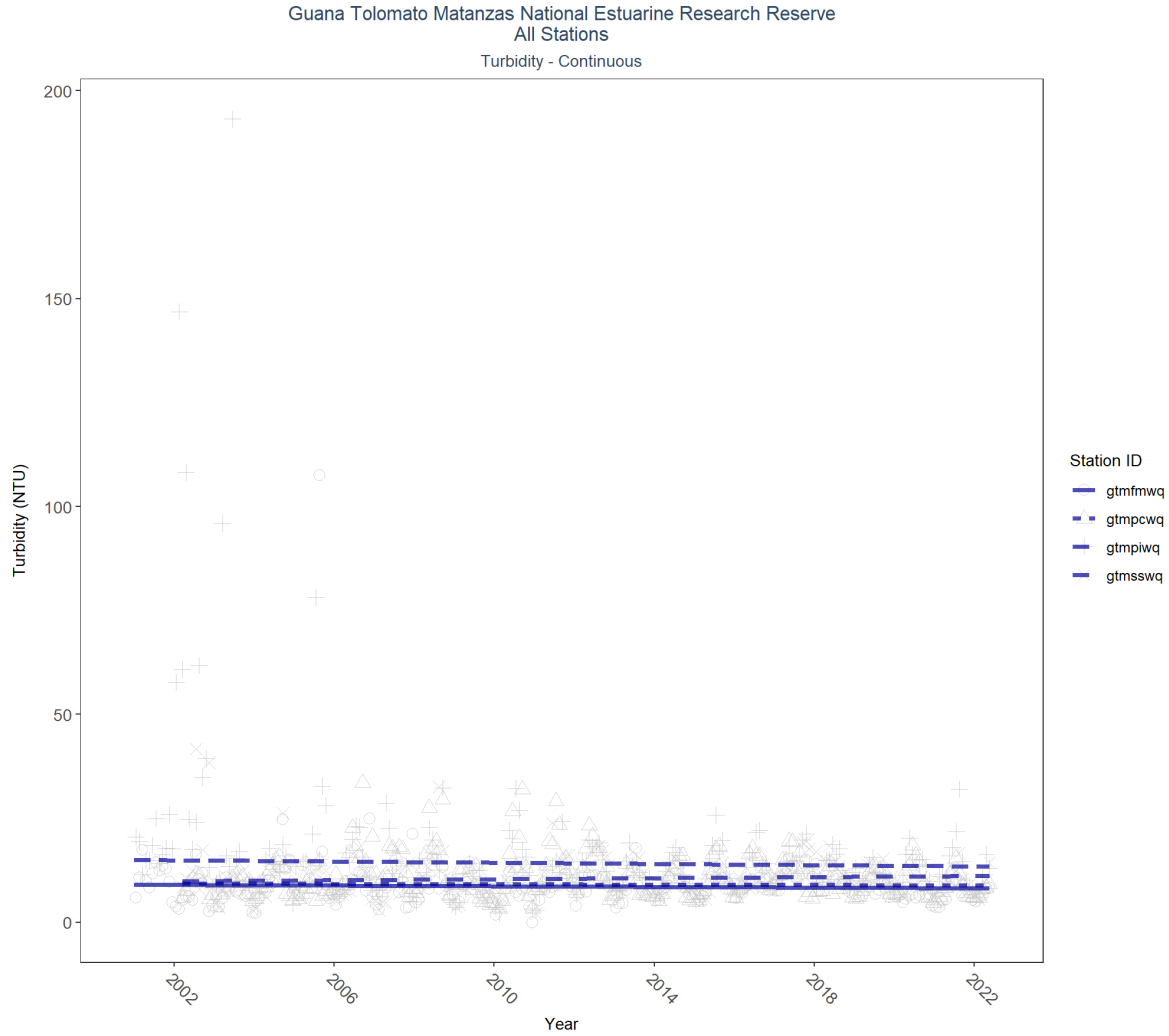
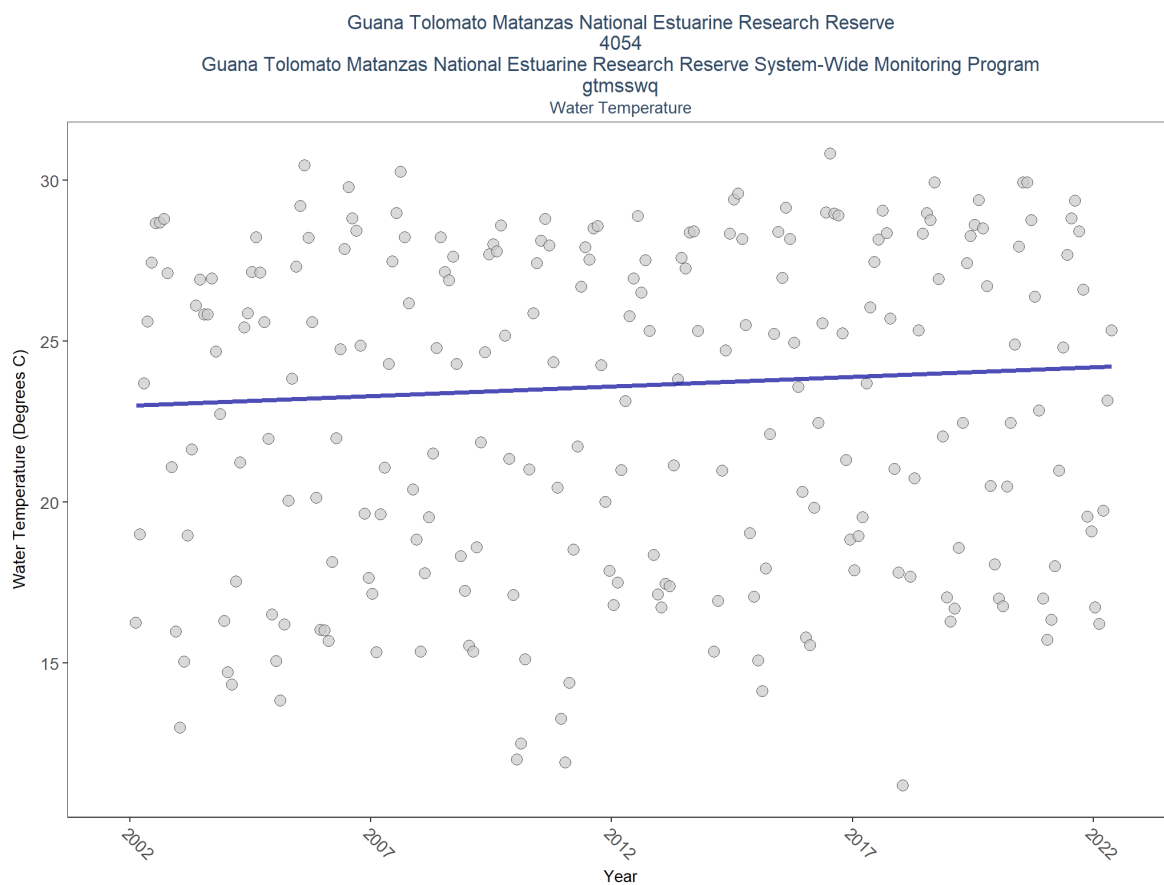


Table 5: Seasonal Kendall-Tau Results for All Stations - Turbidity

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
gtmsswq	548508	21	2002 - 2022	9	0.07	9.83	0.06	0.1350
gtmfmwq	588931	22	2001 - 2022	7	-0.06	9.04	-0.04	0.1966
gtmpcwq	584674	21	2002 - 2022	9	-0.03	9.27	-0.02	0.6048
gtmpiwq	552290	22	2001 - 2022	10	-0.09	14.97	-0.07	0.0496

Water Temperature

gtmsswq



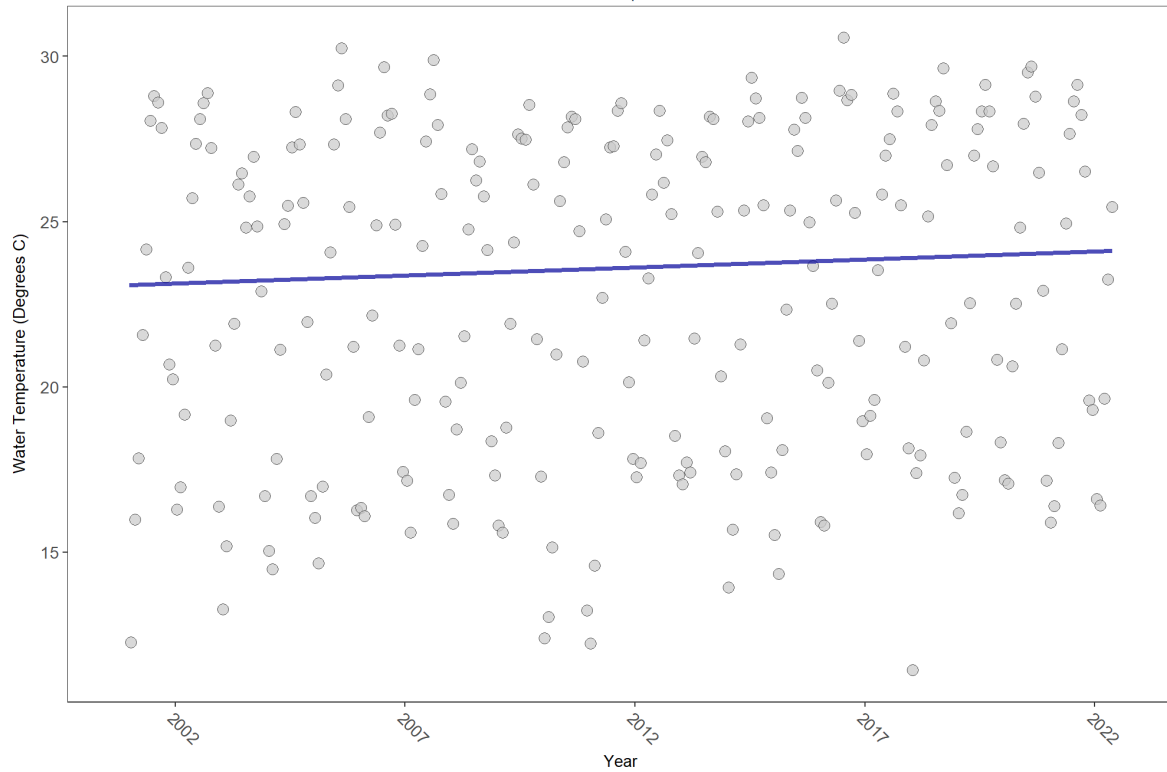
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	591934	21	23.7	TRUE	0.2136	0.0000	0.0595351	22.9992	4.8176	0.9397	1

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

SennIntercept is intercept value at beginning of record for monitoring location

gtmfmwq

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gtmfmwq
Water Temperature



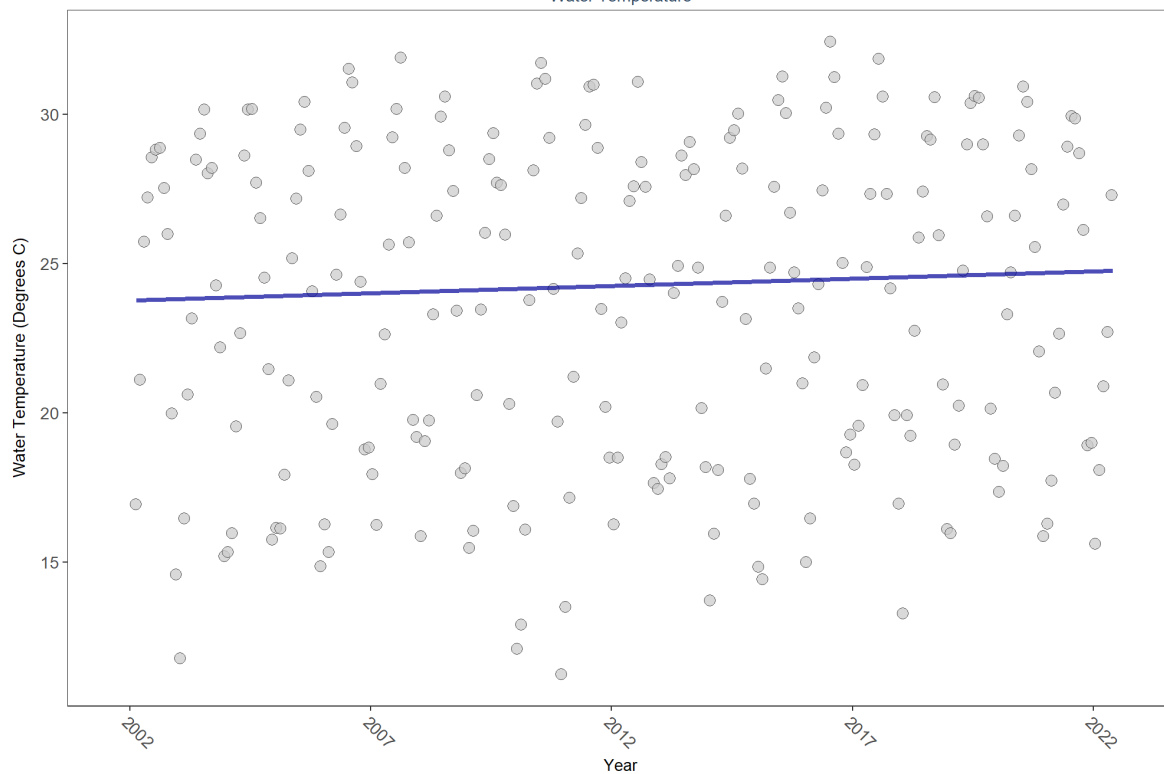
RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	623154	22	23.5	TRUE	0.2122	0.0000	0.04856711	23.08626	5.098	0.9263	1

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

SennIntercept is intercept value at beginning of
record for monitoring location

gtmpcwq

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gtmpcwq
Water Temperature

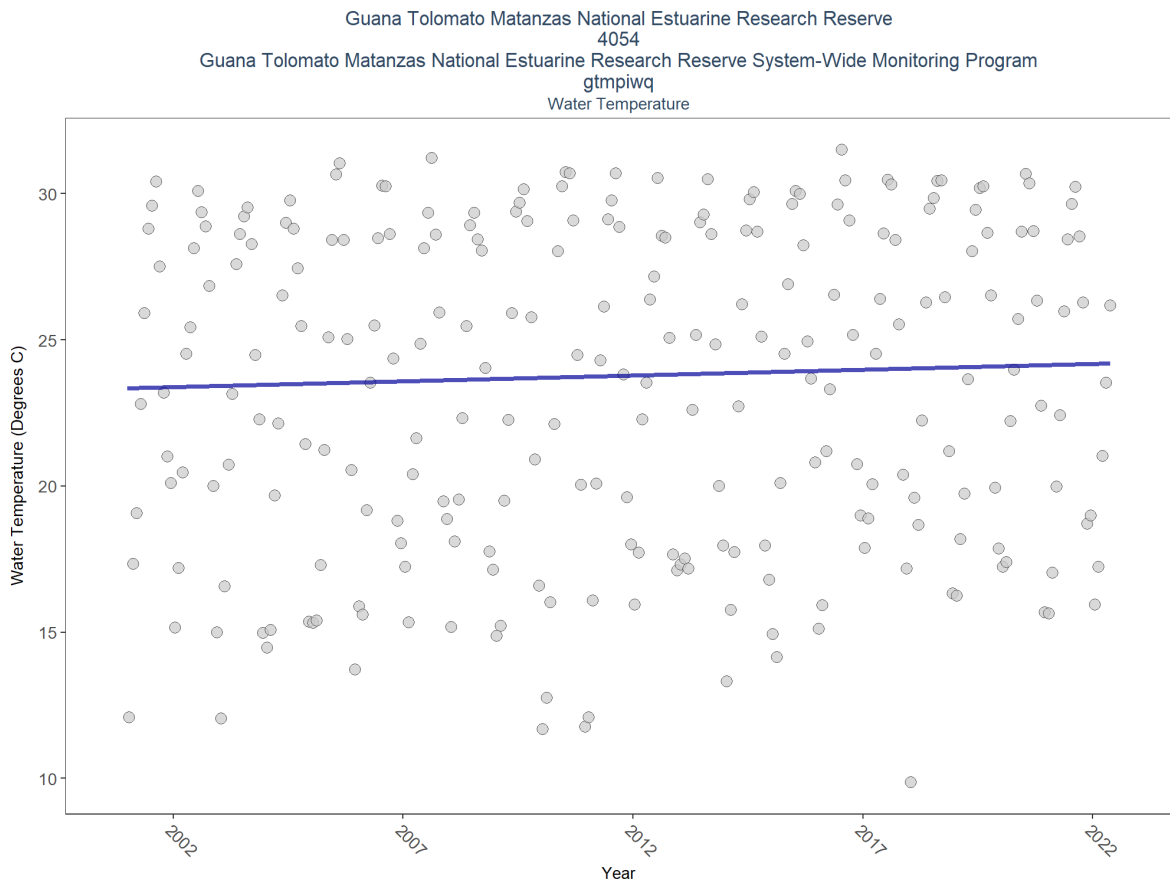


RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	613439	21	24.3	TRUE	0.1407	0.0025	0.04796957	23.7734	4.1474	0.9654	1

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

SennIntercept is intercept value at beginning of
record for monitoring location

gtmpiwq



RelativeDepth	N_Data	N_Years	Median	Independent	tau	p	SennSlope	SennIntercept	ChiSquared	pChiSquared	Trend
bottom	627043	22	24.1	TRUE	0.1768	0.0001	0.04030242	23.33673	4.5392	0.9514	1

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

SennIntercept is intercept value at beginning of
record for monitoring location

All Stations Combined

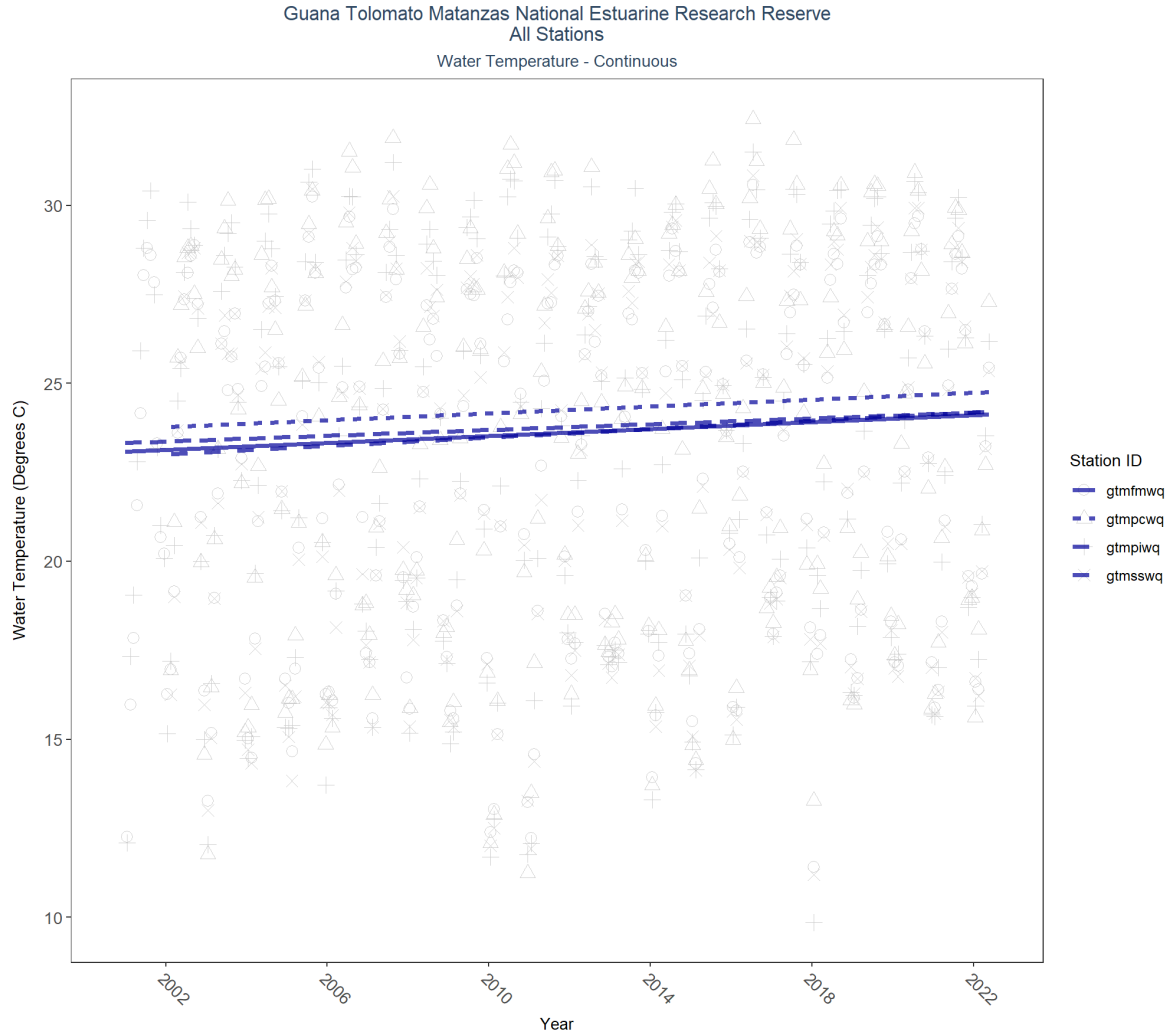


Table 6: Seasonal Kendall-Tau Results for All Stations - Water Temperature

Station	N_Data	N_Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
gtmfswq	591934	21	2002 - 2022	23.70	0.21	23	0.06	0.0000
gtmfswq	623154	22	2001 - 2022	23.50	0.21	23.09	0.05	0.0000
gtmfswq	613439	21	2002 - 2022	24.30	0.14	23.77	0.05	0.0025
gtmfswq	627043	22	2001 - 2022	24.10	0.18	23.34	0.04	0.0001
872-0494	35473	2	2020 - 2021	22.34	-	-	-	-