

Rocky Bayou State Park Aquatic Preserve

SEACAR Discrete Water Quality Analysis

Last compiled on 15 August, 2024

Contents

Indicators	2
Nutrients	2
Total Nitrogen - Discrete	2
Total Phosphorus - Discrete	3
Water Quality	4
Dissolved Oxygen - Discrete	4
Dissolved Oxygen Saturation - Discrete	5
Salinity - Discrete	6
Water Temperature - Discrete	7
pH - Discrete	8
Water Clarity	9
Turbidity - Discrete	9
Total Suspended Solids - Discrete	10
Chlorophyll a, Uncorrected for Pheophytin - Discrete	11
Chlorophyll a, Corrected for Pheophytin - Discrete	12
Secchi Depth - Discrete	13
Colored Dissolved Organic Matter - Discrete	14

Indicators

Nutrients

Total Nitrogen - Discrete

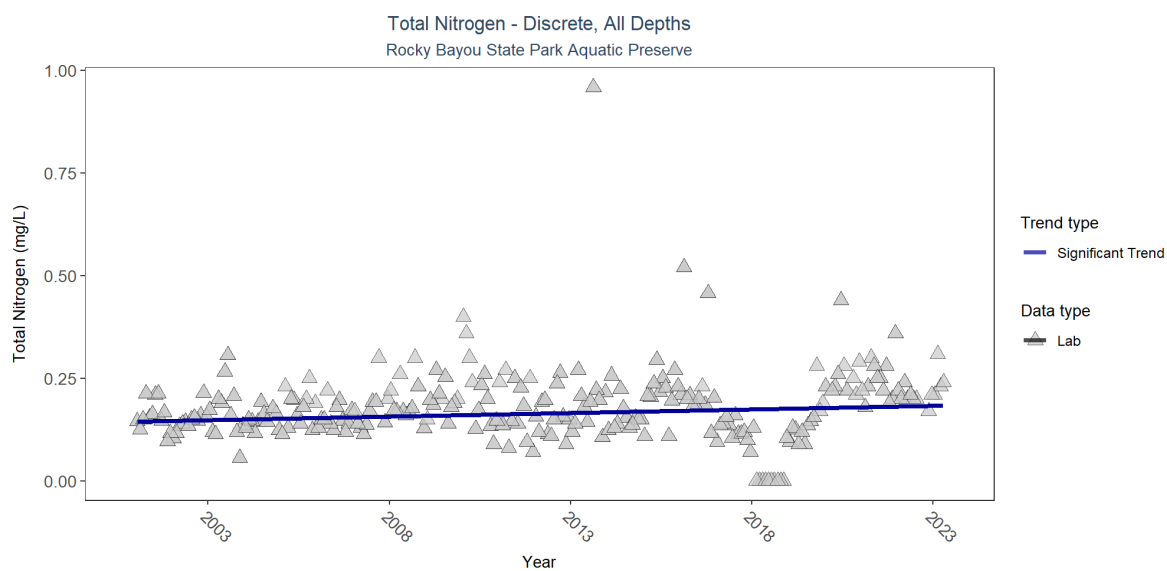


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	639	23	2001 - 2023	0.2	0.1124	0.14407	0.00176	0.0107

Total Phosphorus - Discrete

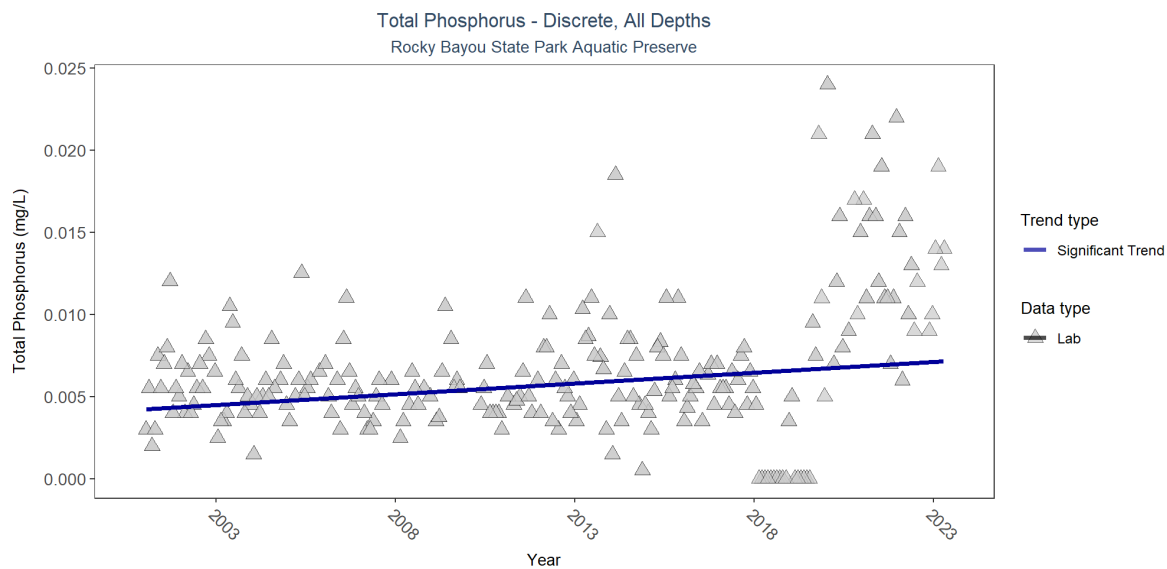


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	470	23	2001 - 2023	0.007	0.1814	0.00423	0.00013	0.0001

Water Quality

Dissolved Oxygen - Discrete

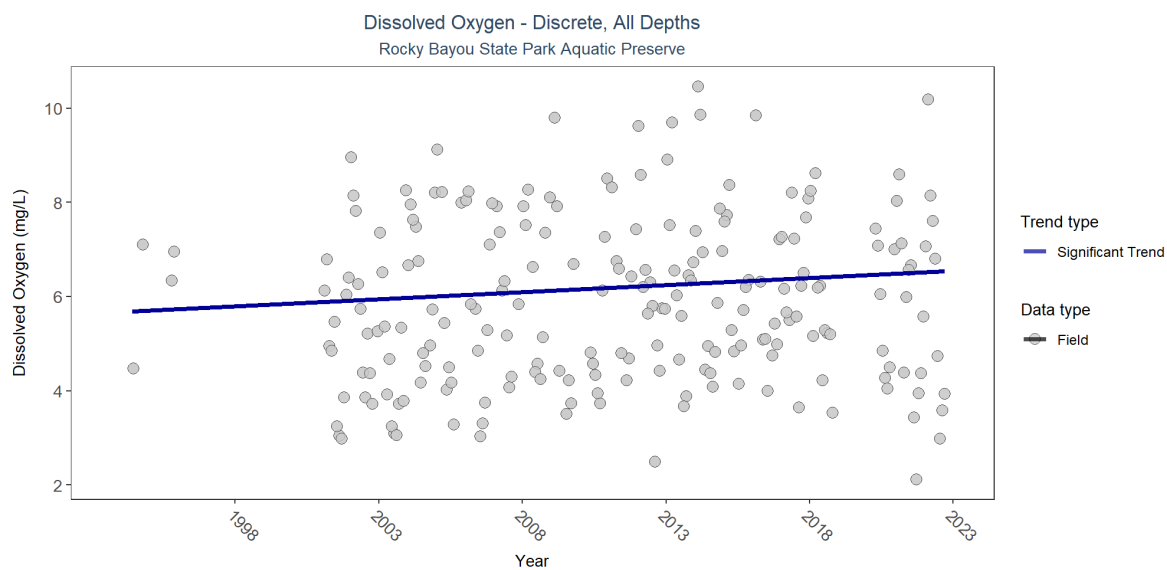


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	642	23	1994 - 2022	6.54	0.1273	5.67037	0.03	0.0059

Dissolved Oxygen Saturation - Discrete

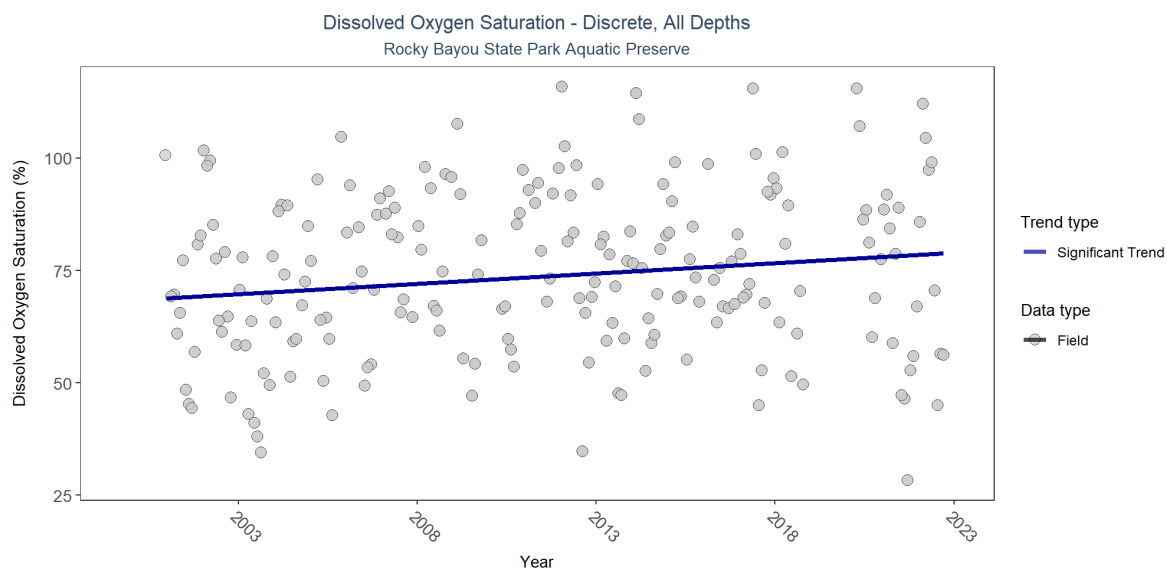


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	610	22	2000 - 2022	89	0.1187	68.3263	0.46202	0.0143

Salinity - Discrete

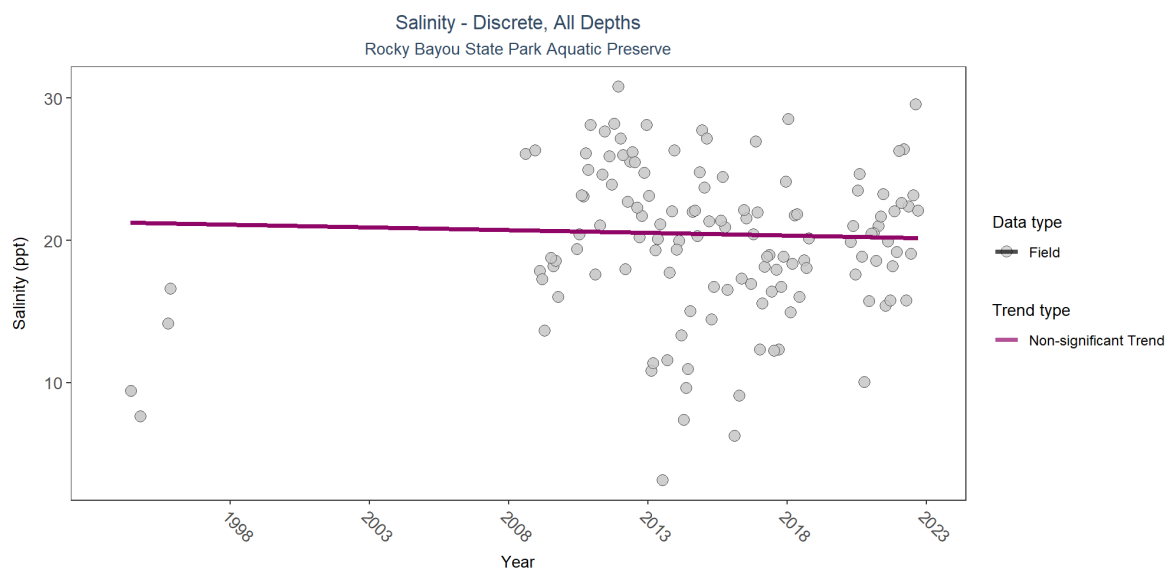


Table 5: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	No significant trend	629	24	1994 - 2022	21.9	-0.0237	21.25917	-0.03783	0.5735

Water Temperature - Discrete

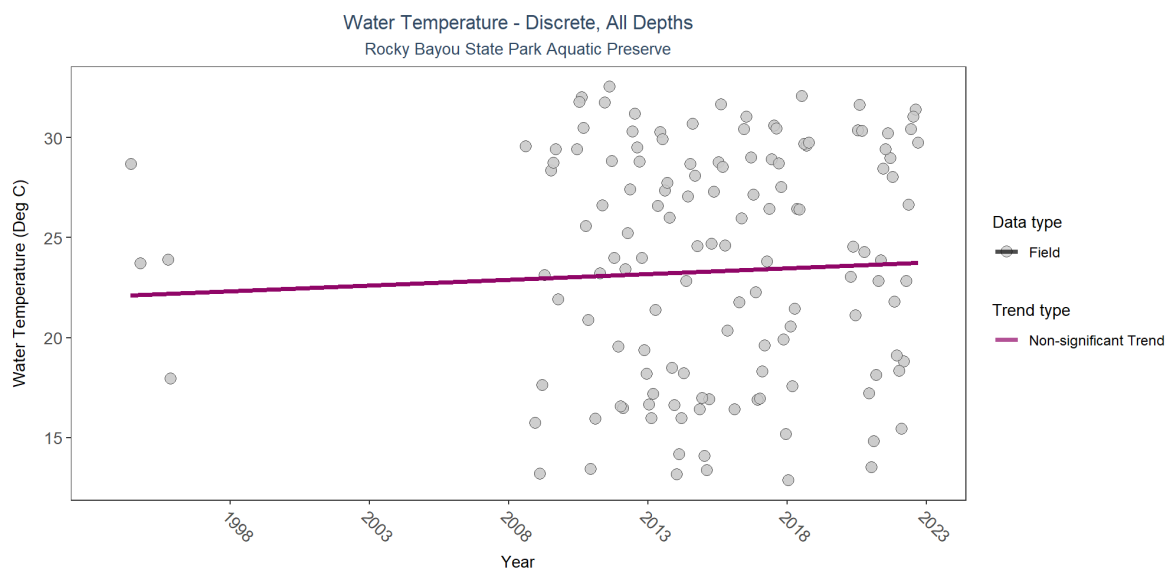


Table 6: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	334	16	1994 - 2022	24.38885	0.114	22.10367	0.05695	0.0708

pH - Discrete

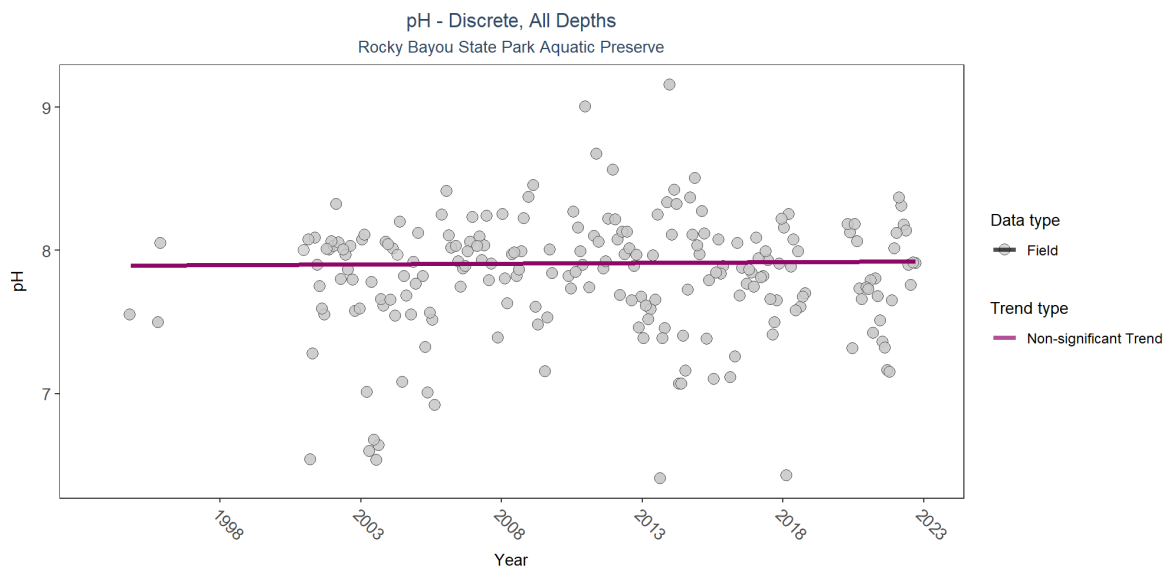


Table 7: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	638	24	1994 - 2022	7.88	0.0145	7.89579	0.001	0.7534

Water Clarity

Turbidity - Discrete

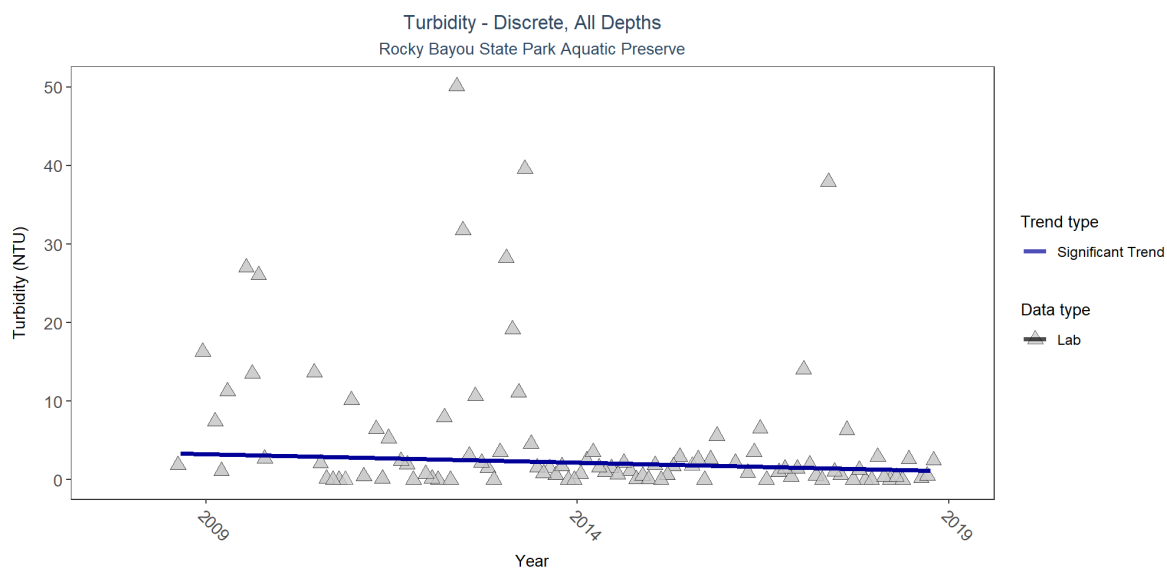


Table 8: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	221	11	2008 - 2018	1	-0.2463	3.44167	-0.21339	0.0024

Total Suspended Solids - Discrete

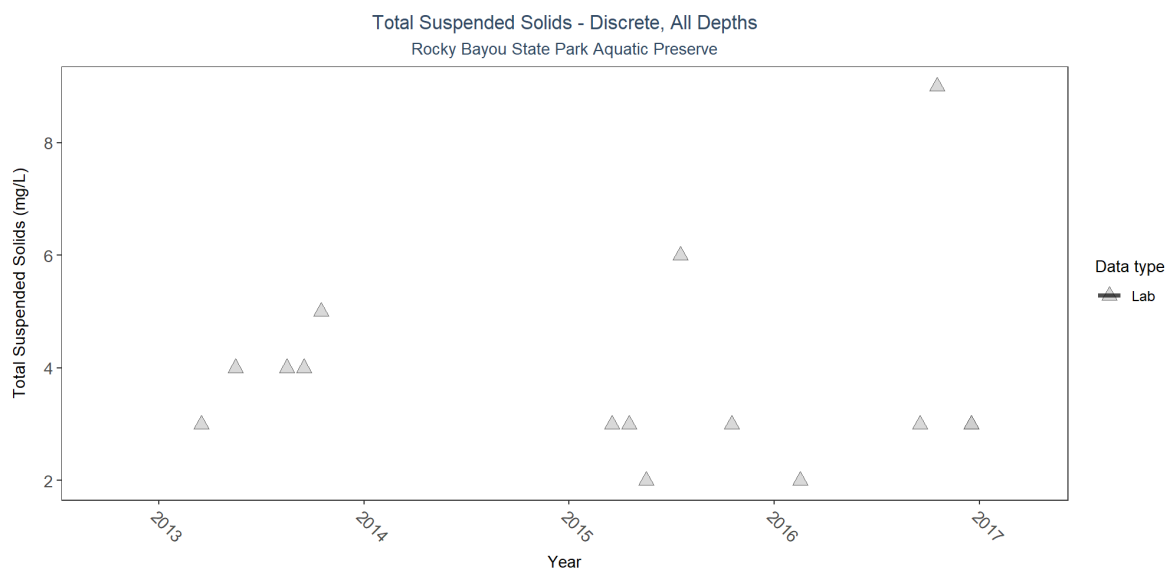


Table 9: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Insufficient data to calculate trend	15	3	2013 - 2016	3	-	-	-	NA

Chlorophyll a, Uncorrected for Pheophytin - Discrete

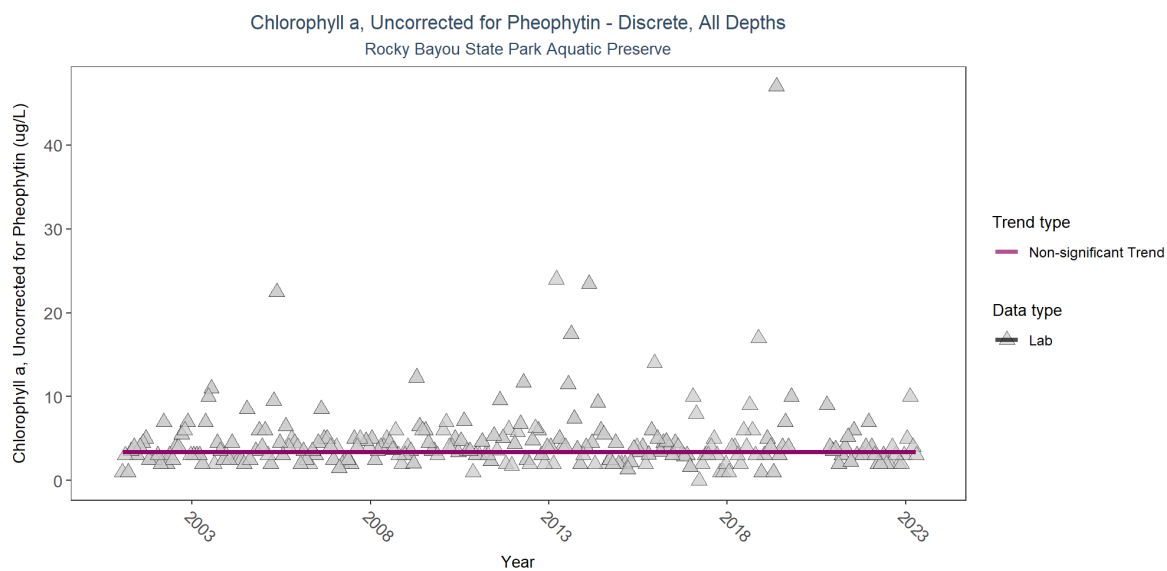


Table 10: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	459	23	2001 - 2023	3.4	-0.0164	3.42847	0	0.7865

Chlorophyll a, Corrected for Pheophytin - Discrete

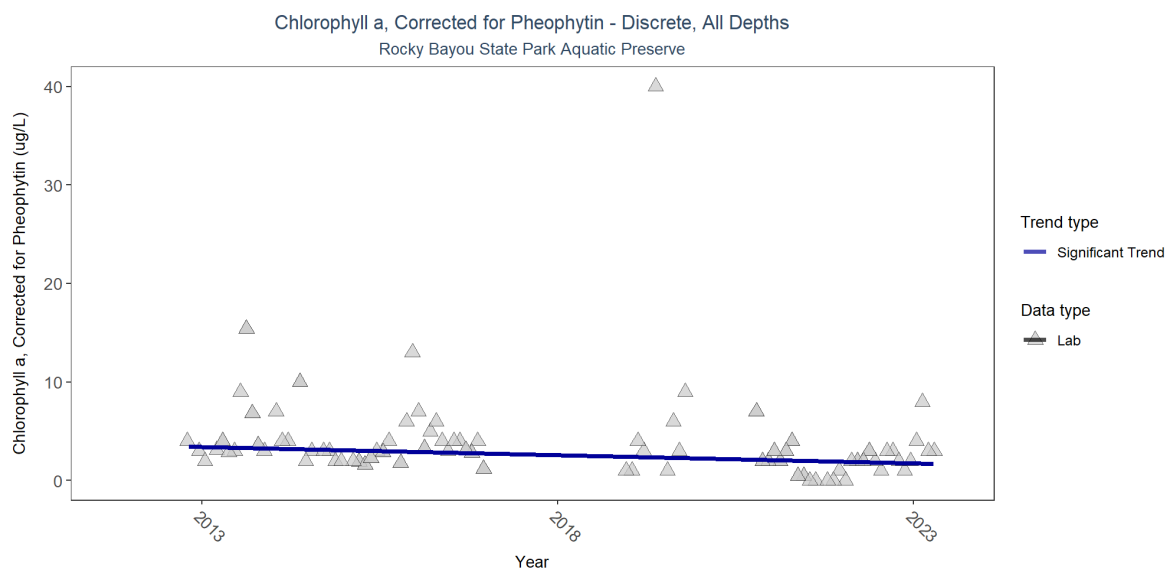


Table 11: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	110	11	2012 - 2023	3	-0.3035	3.58333	-0.16667	0.0012

Secchi Depth - Discrete

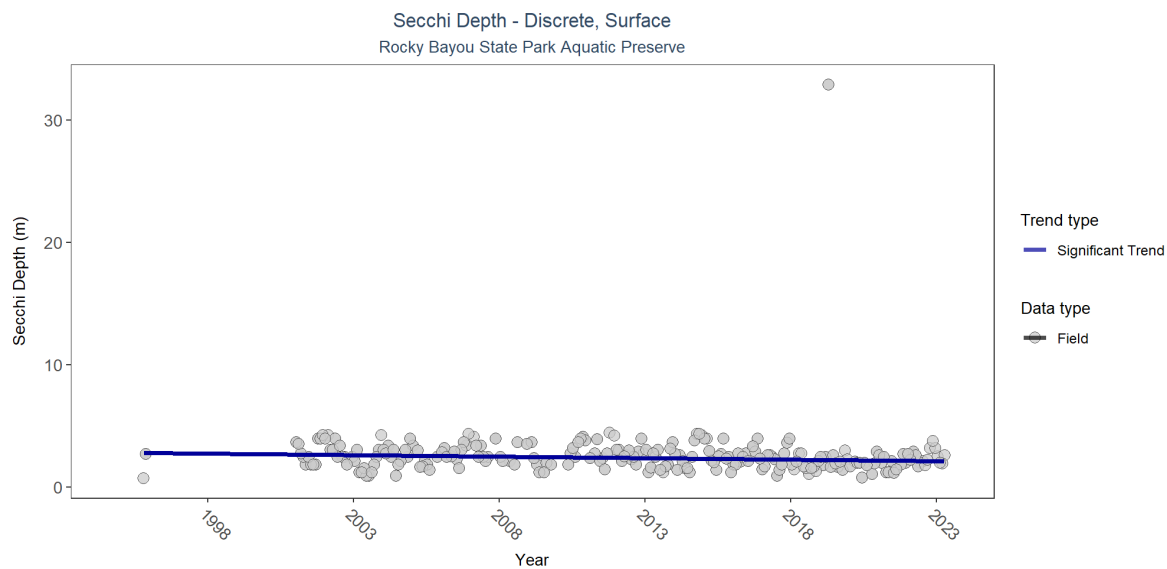


Table 12: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	466	24	1995 - 2023	2.4384	-0.161	2.82074	-0.0254	0.0007

Colored Dissolved Organic Matter - Discrete

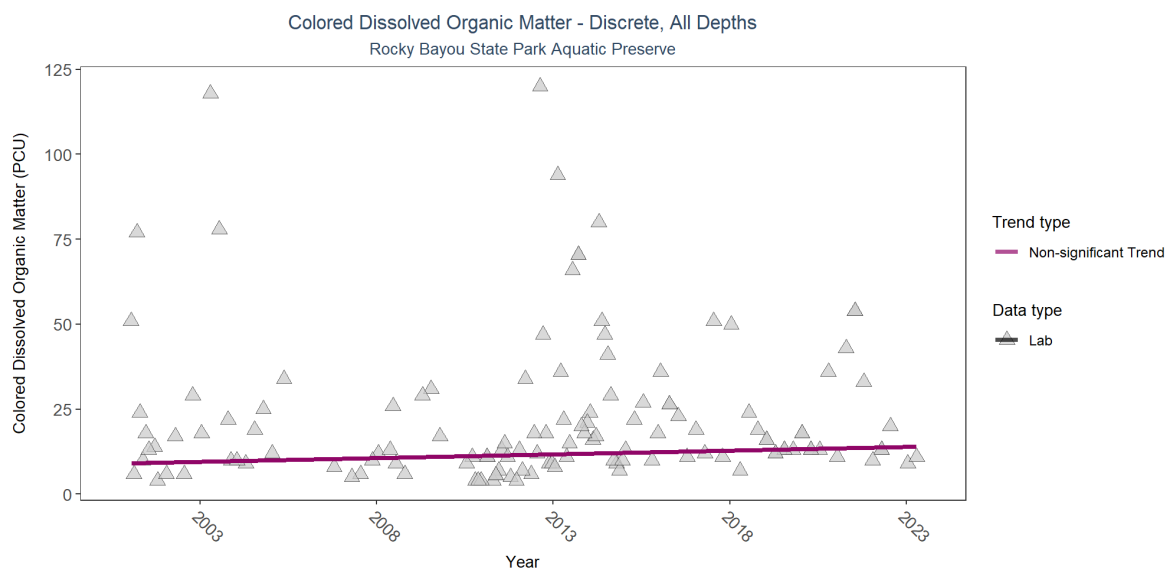


Table 13: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	129	23	2001 - 2023	13	0.105	9.05556	0.22222	0.2055