

Gasparilla Sound-Charlotte Harbor Aquatic Preserve

SEACAR Discrete Water Quality Analysis

Last compiled on 14 August, 2024

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Indicators

Nutrients

Total Nitrogen - Discrete

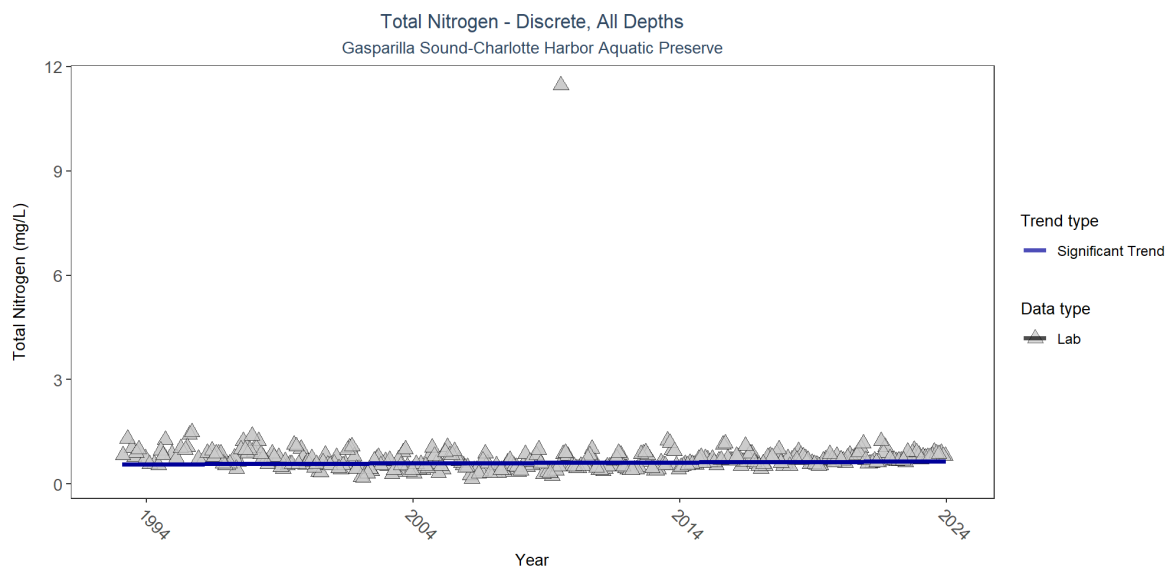


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	6154	31	1993 - 2023	0.602	0.0822	0.56852	0.00262	0.0443

Total Phosphorus - Discrete

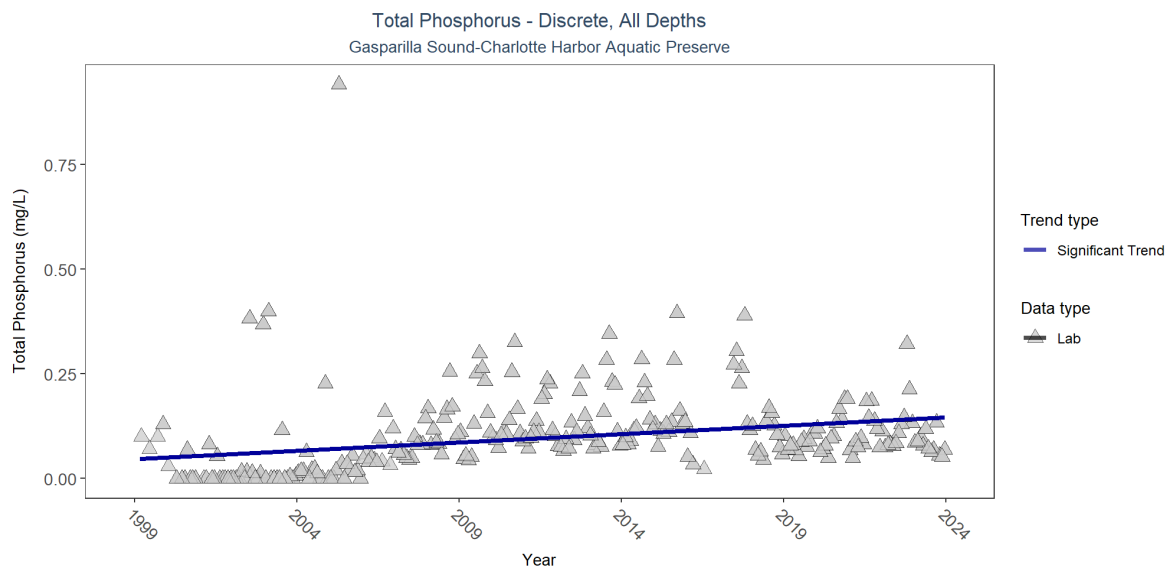


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	4251	25	1999 - 2023	0.088	0.313	0.04664	0.00397	0.0000

Water Quality

Dissolved Oxygen - Discrete

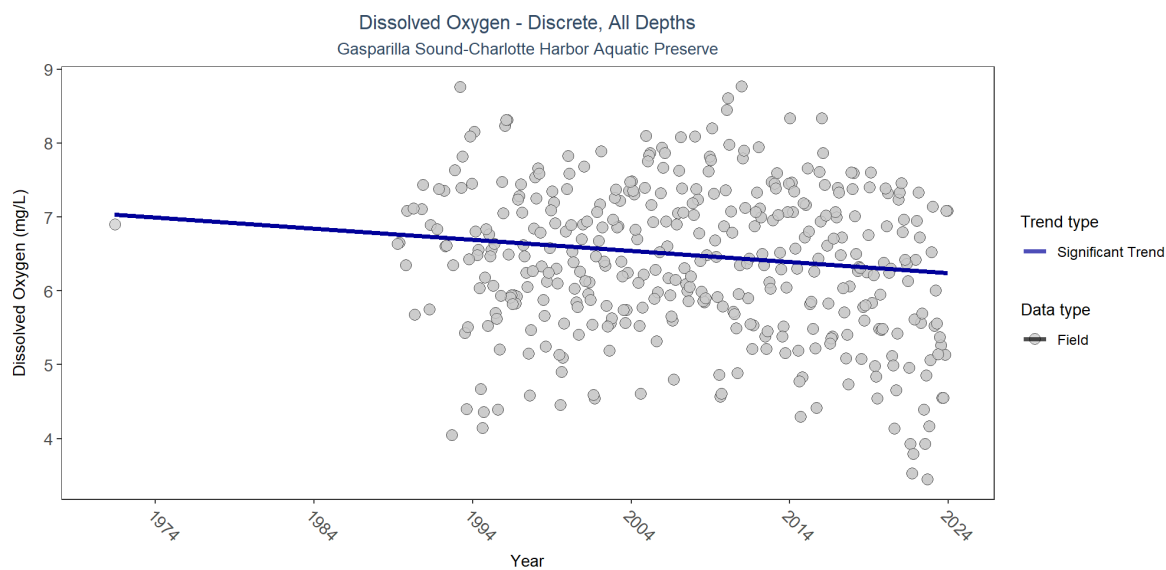


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	55485	36	1971 - 2023	6.6	-0.1792	7.04142	-0.01507	0.0000

Dissolved Oxygen Saturation - Discrete

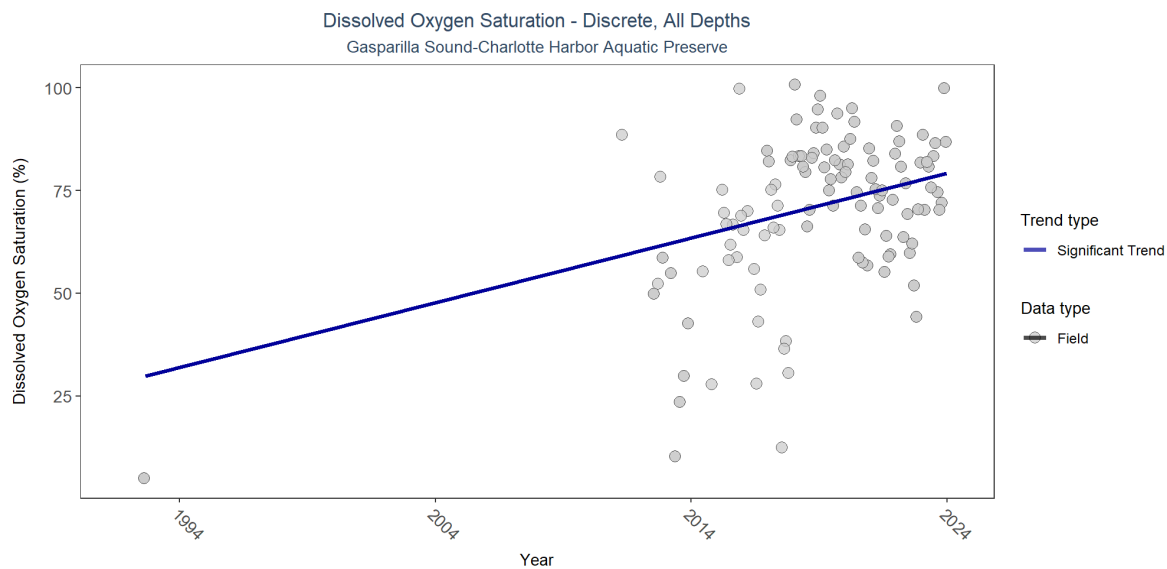


Table 4: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	609	14	1992 - 2023	79.8	0.2522	28.82654	1.57435	0.0003

Salinity - Discrete

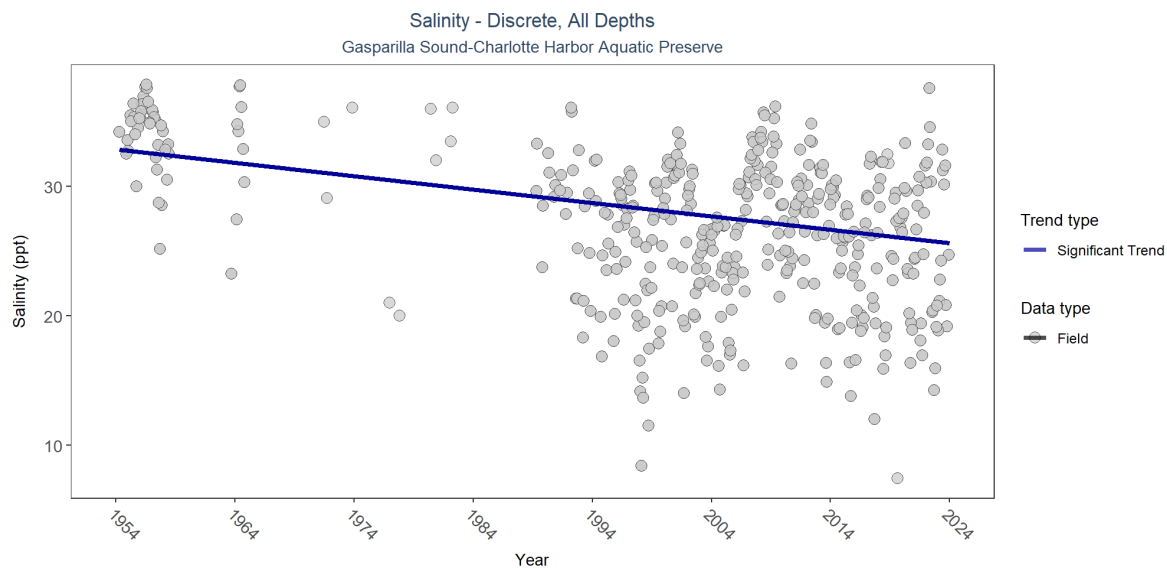


Table 5: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly decreasing trend	54021	48	1954 - 2023	27.1	-0.2415	32.8611	-0.1032	0.0000

Salinity - Continuous

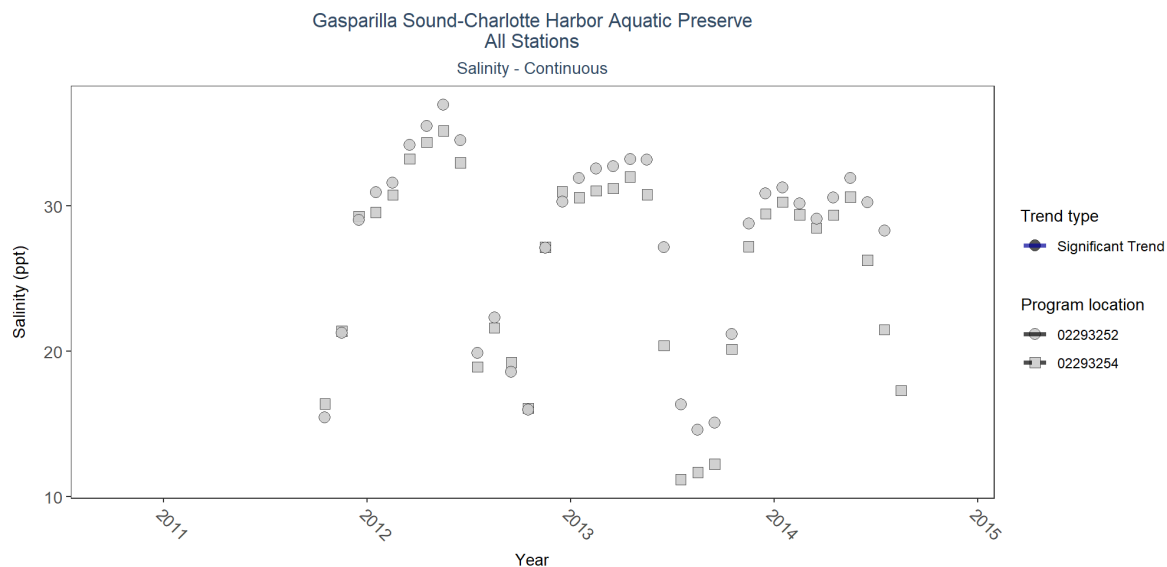


Table 6: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02293254	Insufficient data to calculate trend	1030	4	2011 - 2014	29	-	-	-	-
02293252	Insufficient data to calculate trend	1002	4	2011 - 2014	30	-	-	-	-

Water Temperature - Discrete

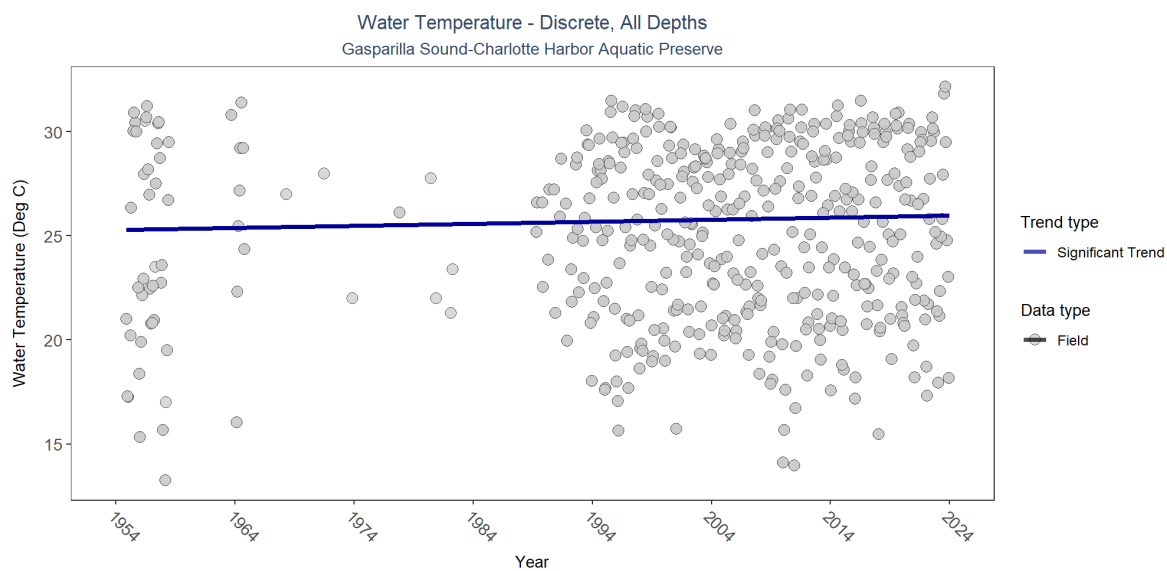


Table 7: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	56419	48	1954 - 2023	25.99	0.0831	25.27285	0.0098	0.0132

Water Temperature - Continuous

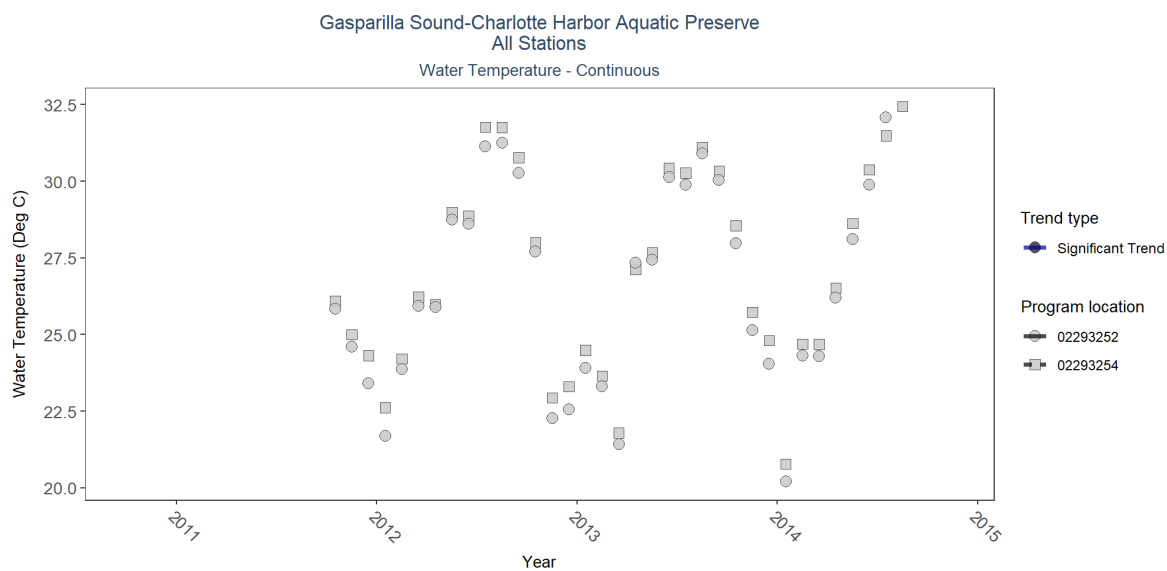


Table 8: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
02293254	Insufficient data to calculate trend	1041	4	2011 - 2014	27.0	-	-	-	-
02293252	Insufficient data to calculate trend	1003	4	2011 - 2014	26.4	-	-	-	-

pH - Discrete

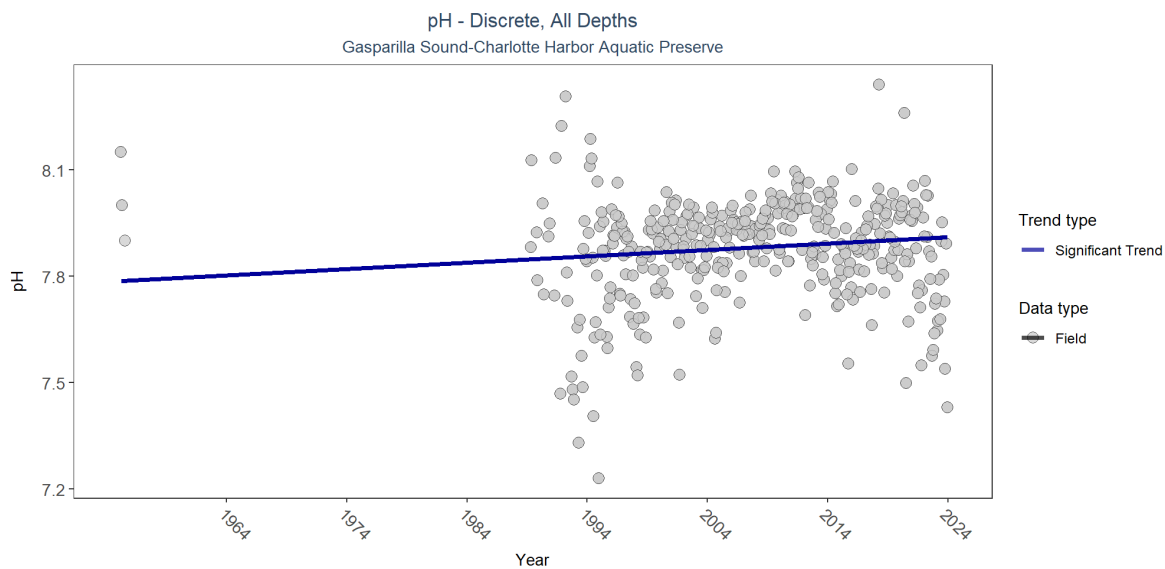


Table 9: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly increasing trend	52185	36	1955 - 2023	7.91	0.1109	7.78572	0.00181	0.0029

Water Clarity

Turbidity - Discrete

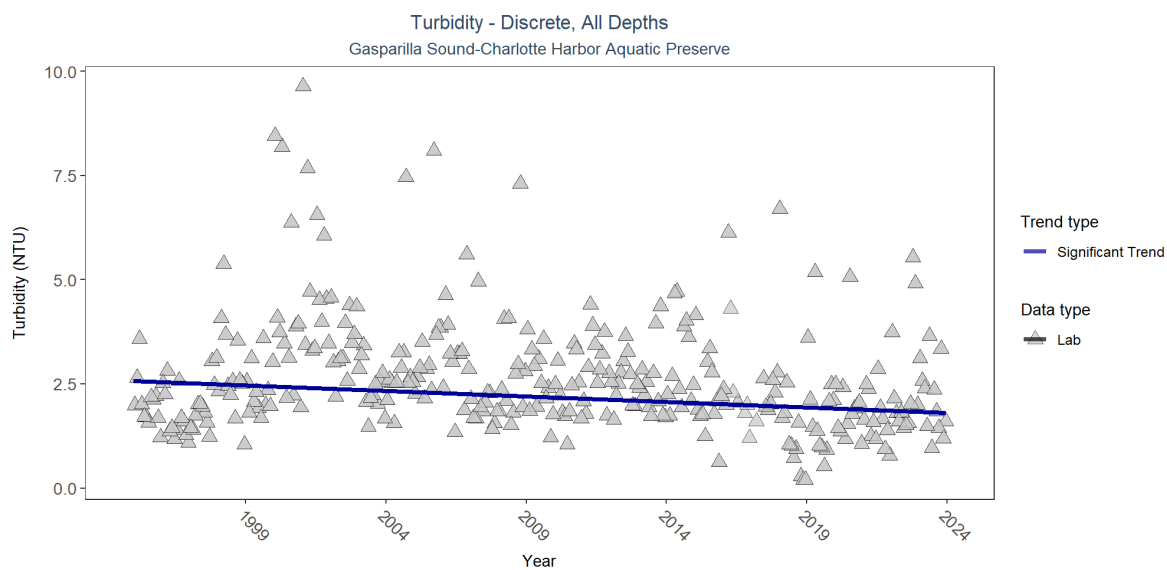


Table 10: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	9902	29	1995 - 2023	1.95	-0.1546	2.57154	-0.02637	0.0001

Total Suspended Solids - Discrete

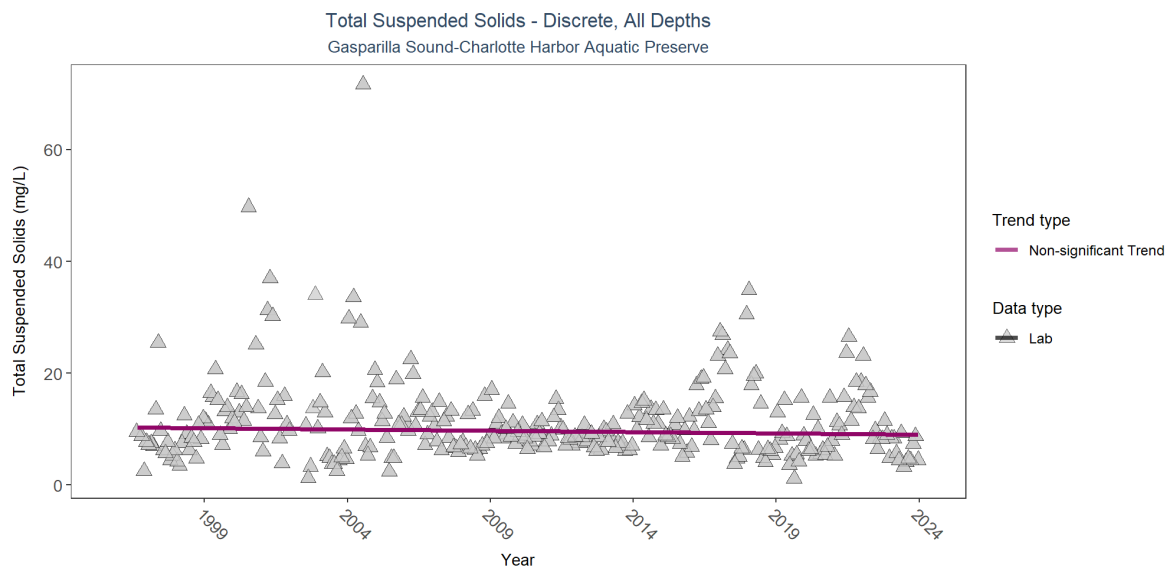


Table 11: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	5091	28	1996 - 2023	7.1	-0.0483	10.28363	-0.04363	0.2279

Chlorophyll a, Uncorrected for Pheophytin - Discrete

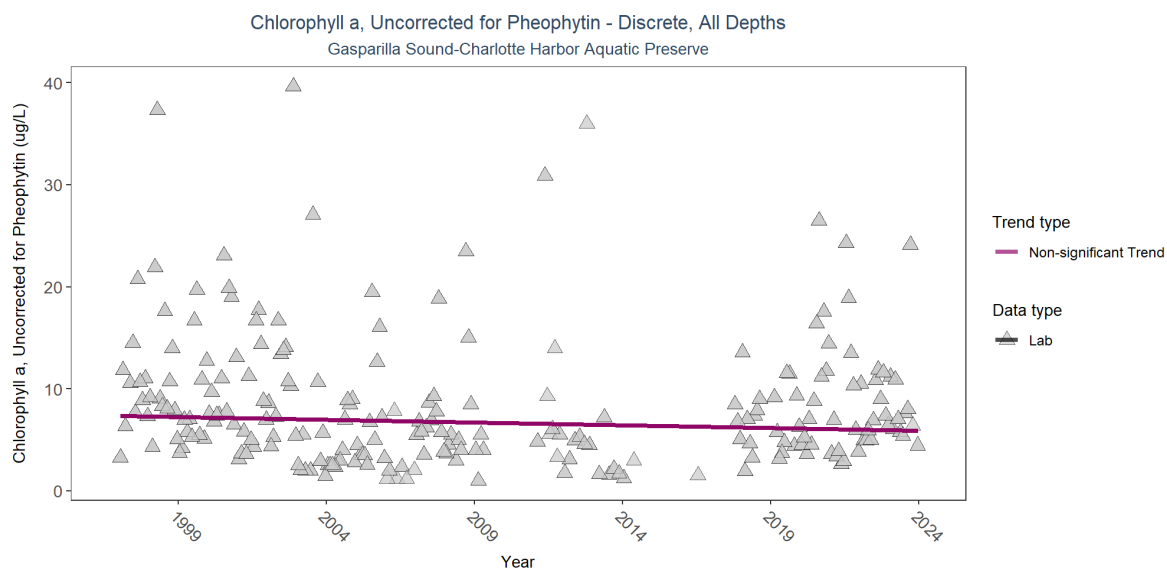


Table 12: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	1367	25	1997 - 2023	5.33	-0.0824	7.36834	-0.055	0.0857

Chlorophyll a, Corrected for Pheophytin - Discrete

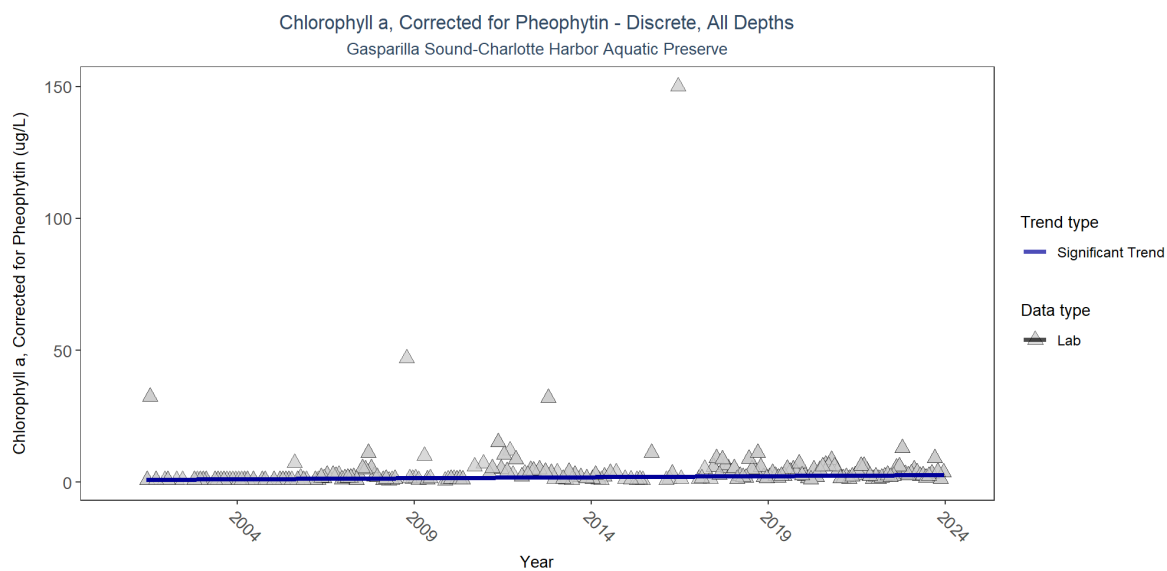


Table 13: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly increasing trend	1444	23	2001 - 2023	1.96	0.3401	1.02701	0.0765	0.0000

Secchi Depth - Discrete

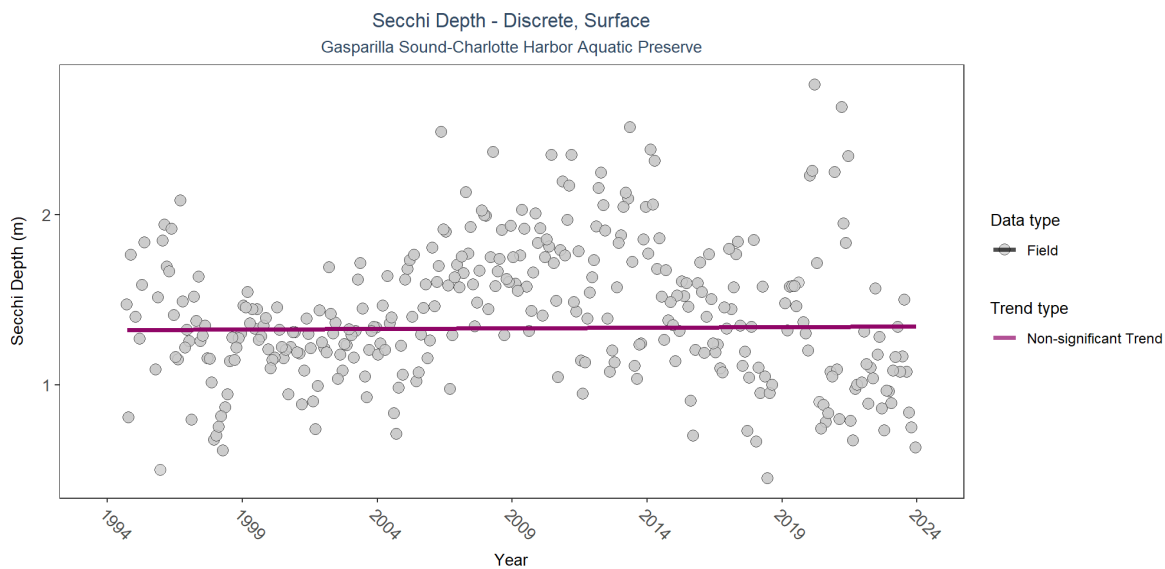


Table 14: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	32106	30	1994 - 2023	1.3	0.0116	1.32152	0.00076	0.7432

Colored Dissolved Organic Matter - Discrete

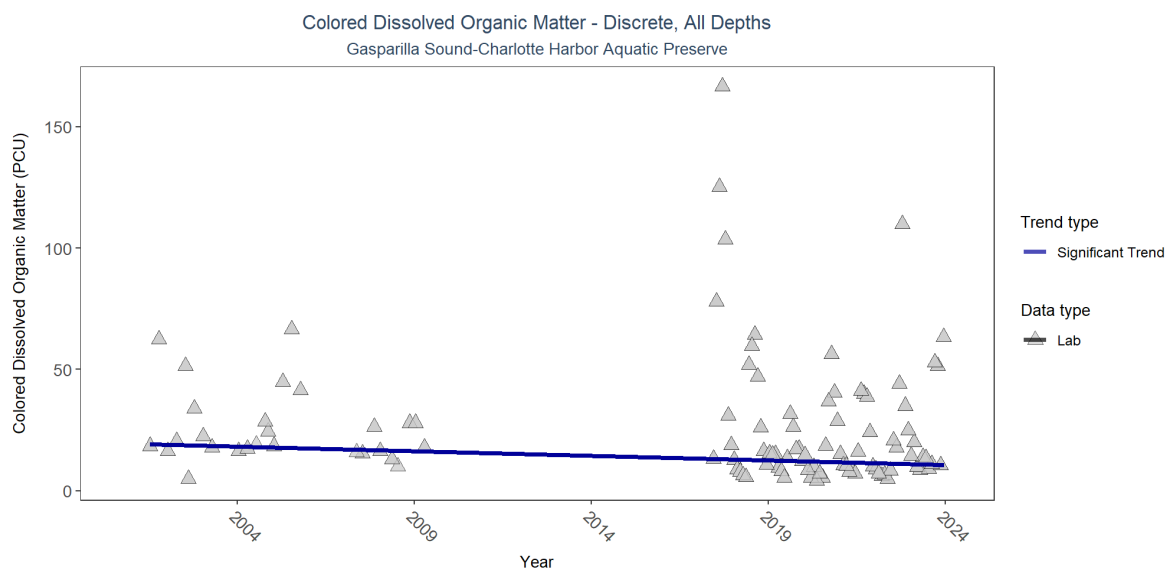


Table 15: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	945	15	2001 - 2023	11.7	-0.1556	19.27256	-0.37027	0.0139