Alligator Harbor Aquatic Preserve
SEACAR Discrete Water Quality Analysis

Last compiled on 14 August, 2024

Contents

Indicators

Nutrients

Total Nitrogen - Discrete

Total Nitrogen - Discrete, All Depths
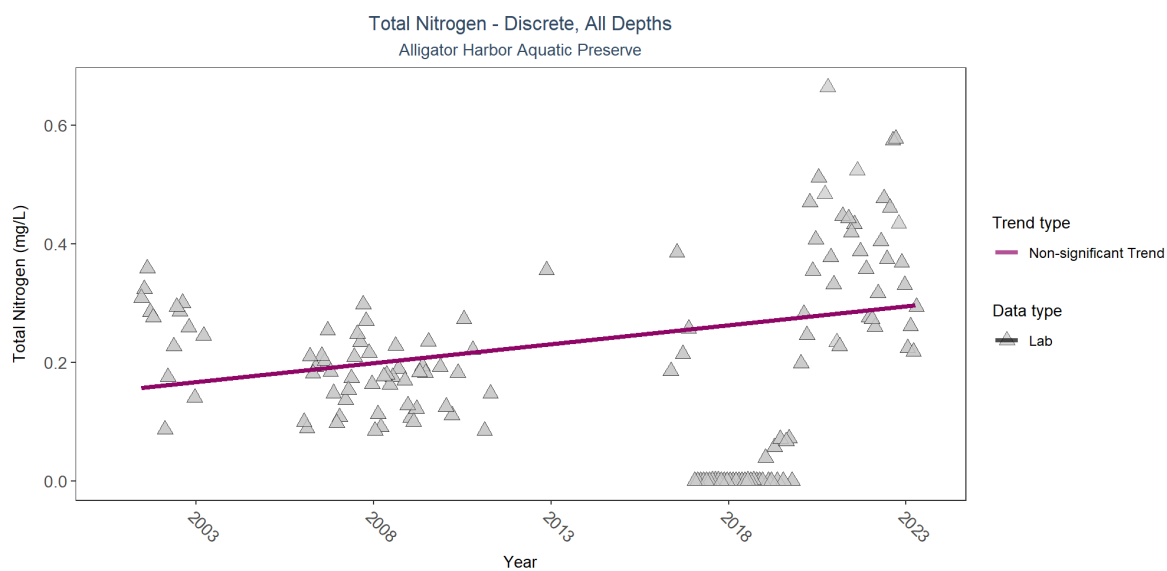Alligator Harbor Aquatic Preserve

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

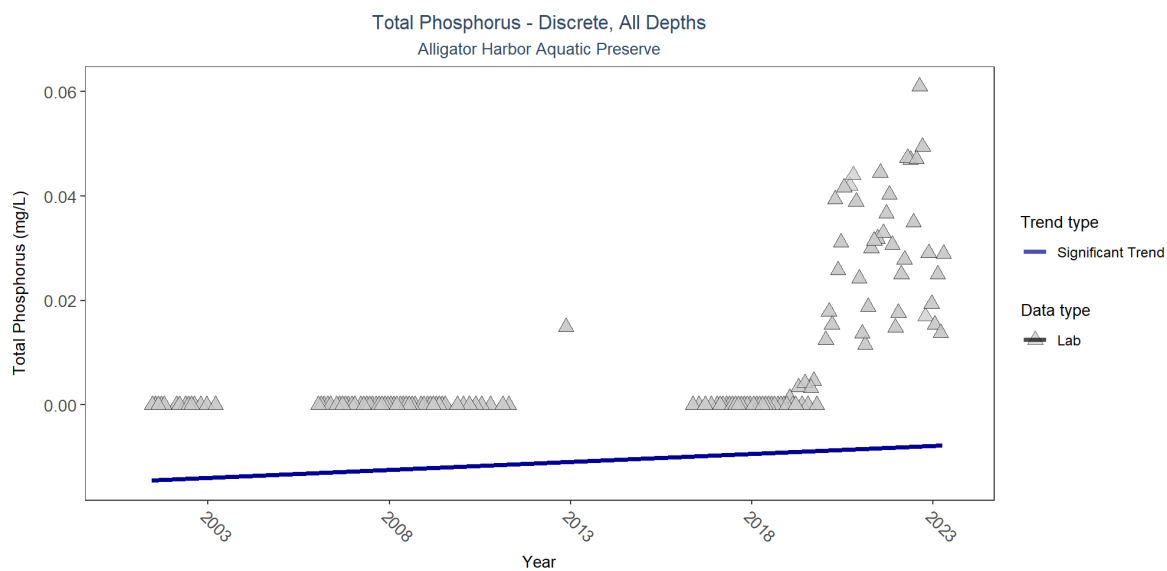| ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	1370	18	2001 - 2023	0.115	0.1228	0.15382	0.00641	0.0671

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	990	18	2001 - 2023	0.00004	0.5037	-0.01461	0.00031	0.0000

Water Quality

Dissolved Oxygen - Discrete

Dissolved Oxygen - Discrete, All Depths
Alligator Harbor Aquatic Preserve

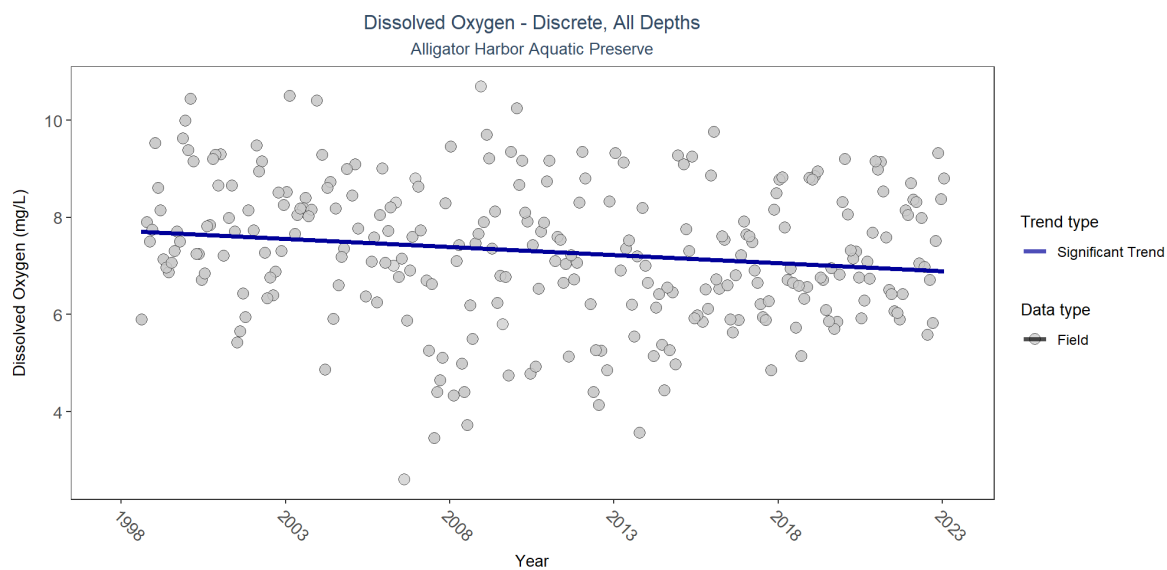Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

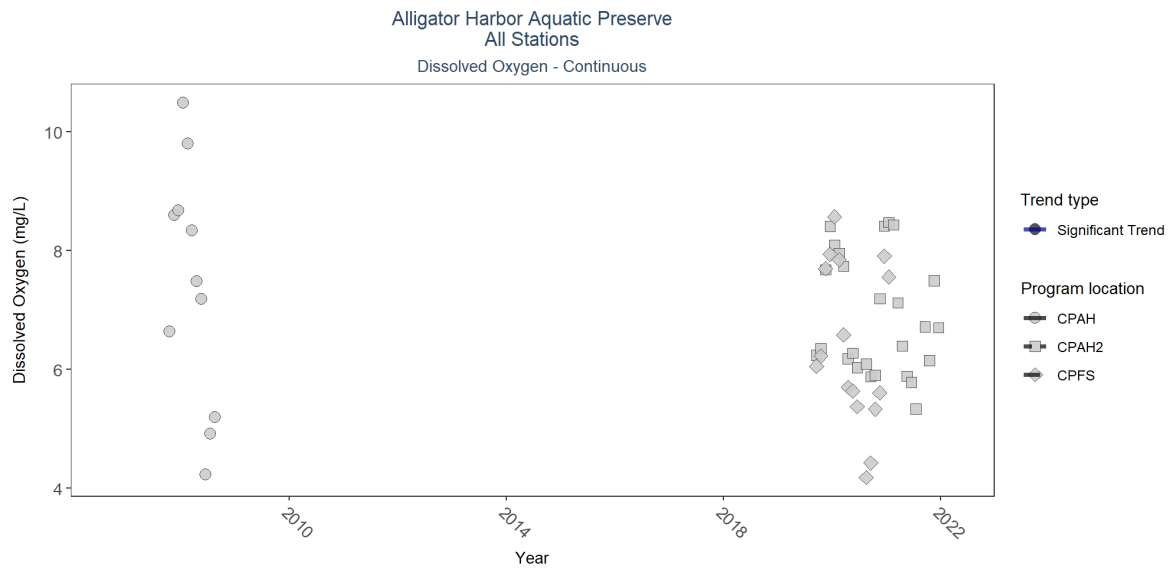| ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	7608	26	1998 - 2023	7.2	-0.1595	7.72295	-0.033	0.0002

Dissolved Oxygen - Continuous

Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH2	Insufficient data to calculate trend	58521	3	2019 - 2021	7.1	-	-	-	-
CPFS	Insufficient data to calculate trend	34179	3	2019 - 2021	6.5	-	-	-	-
CPAH	Insufficient data to calculate trend	11557	2	2007 - 2008	8.0	-	-	-	-

Dissolved Oxygen Saturation - Discrete

Dissolved Oxygen Saturation - Discrete, All Depths

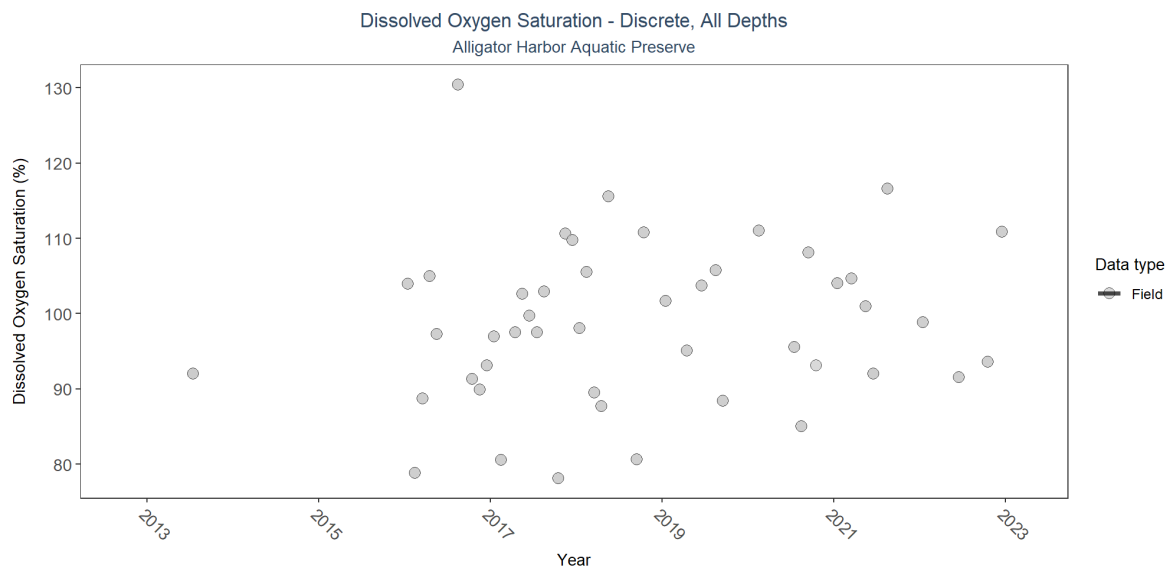Alligator Harbor Aquatic Preserve

Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Insufficient data to calculate trend	131	8	2013 - 2022	96.8	-	-	-	NA

Dissolved Oxygen Saturation - Continuous

Alligator Harbor Aquatic Preserve
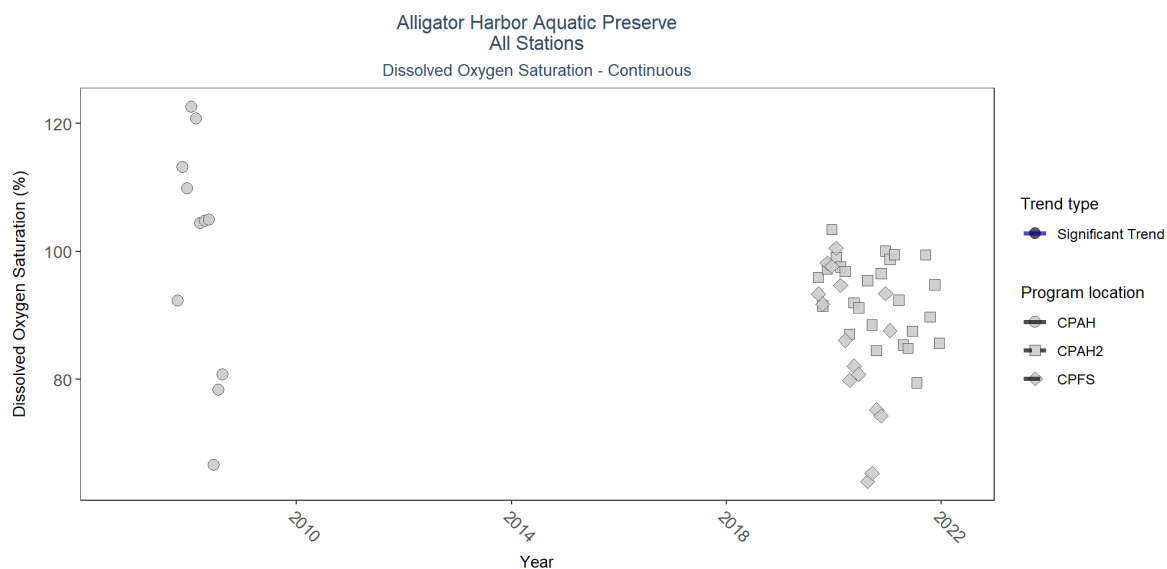All Stations
Dissolved Oxygen Saturation - Continuous

Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

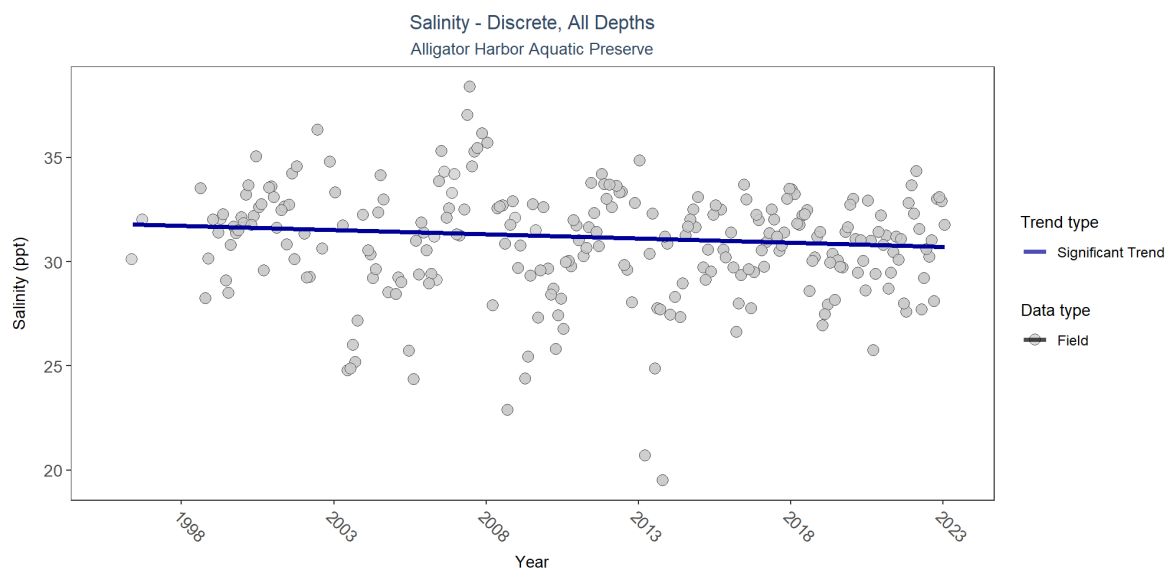| ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH2	Insufficient data to calculate trend	58521	3	2019 - 2021	95.2	-	-	-	-
CPFS	Insufficient data to calculate trend	34179	3	2019 - 2021	90.2	-	-	-	-
CPAH	Insufficient data to calculate trend	11557	2	2007 - 2008	105.6	-	-	-	-

Salinity - Discrete

Table 7: Seasonal Kendall-Tau Results for - Salinity

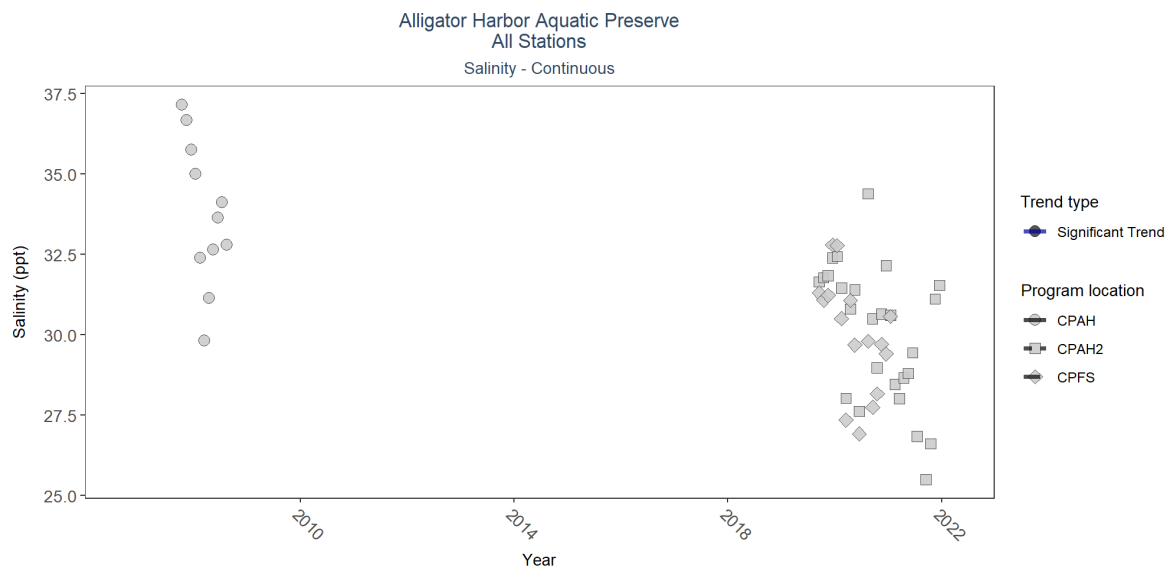| ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly decreasing trend	8844	27	1996 - 2023	31.2	-0.0949	31.80643	-0.04037	0.0233

Salinity - Continuous

Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH2	Insufficient data to calculate trend	60502	3	2019 - 2021	30.5	-	-	-	-
CPFS	Insufficient data to calculate trend	31778	3	2019 - 2021	30.6	-	-	-	-
CPAH	Insufficient data to calculate trend	13034	2	2007 - 2008	34.0	-	-	-	-

Water Temperature - Discrete

Water Temperature - Discrete, All Depths
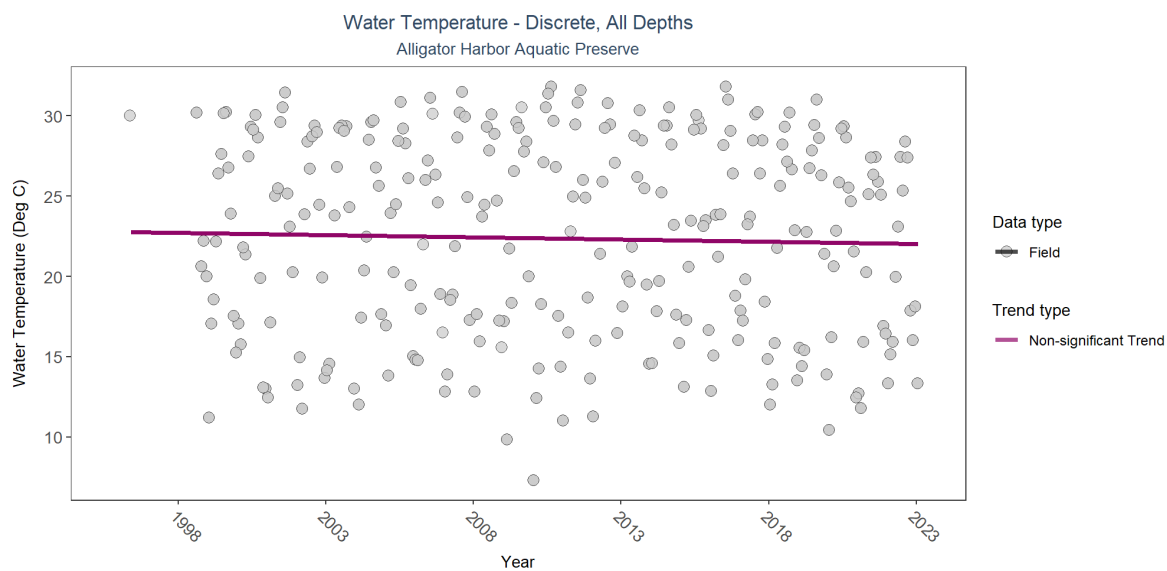Alligator Harbor Aquatic Preserve

Table 9: Seasonal Kendall-Tau Results for - Water Temperature

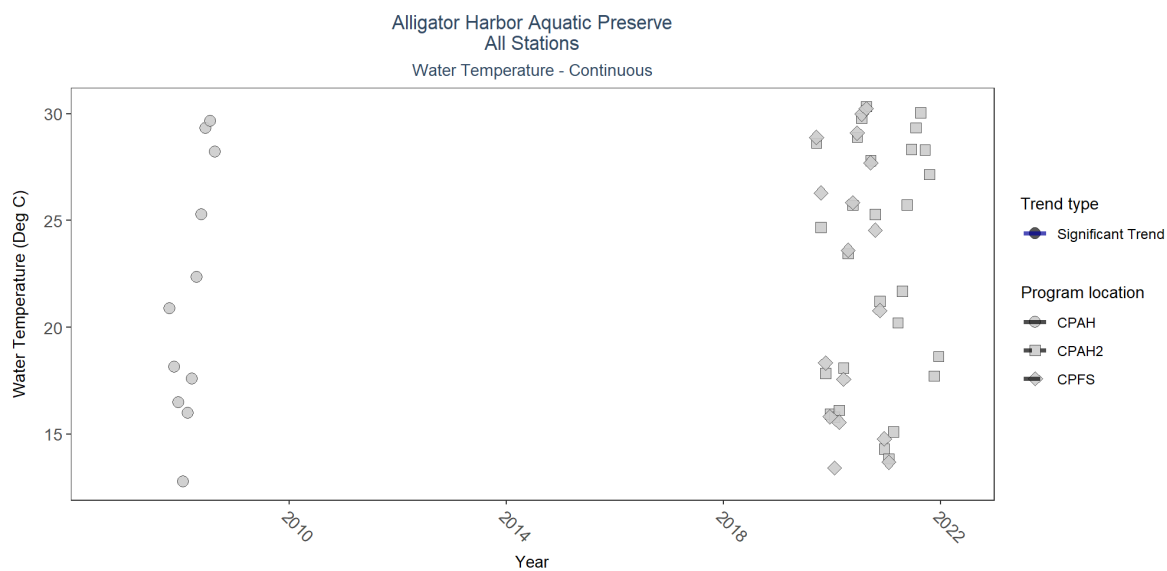| ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	No significant trend	9103	27	1996 - 2023	25.8	-0.0745	22.78214	-0.02757	0.0825

Water Temperature - Continuous

Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH2	Insufficient data to calculate trend	69120	3	2019 - 2021	23.5	-	-	-	-
CPAH	Insufficient data to calculate trend	13034	2	2007 - 2008	20.9	-	-	-	-
CPFS	Insufficient data to calculate trend	38119	3	2019 - 2021	24.5	-	-	-	-

pH - Discrete

pH - Discrete, All Depths
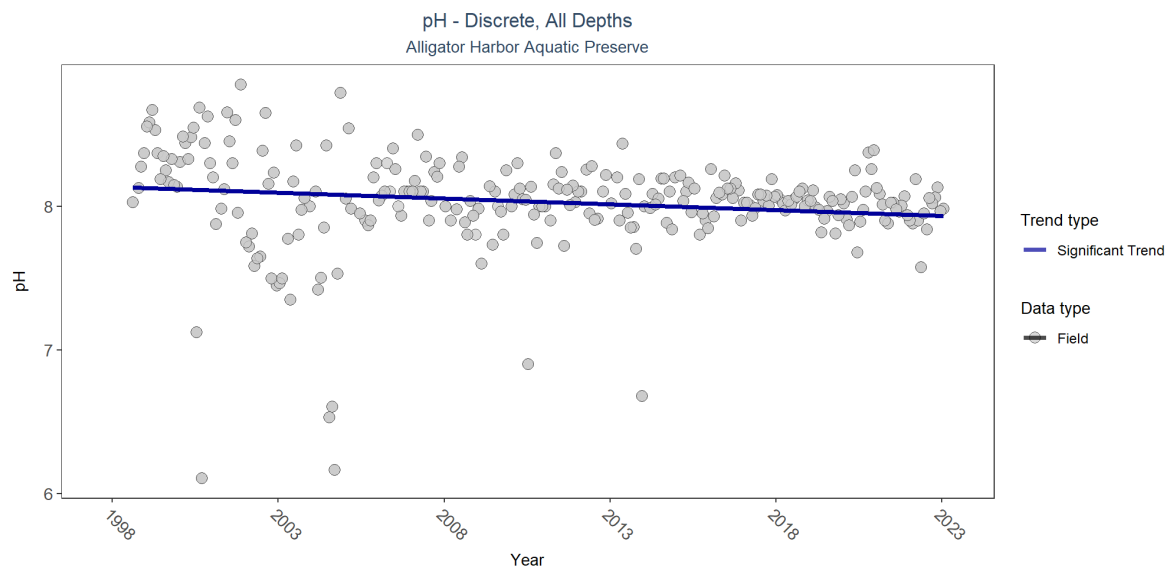Alligator Harbor Aquatic Preserve

Table 11: Seasonal Kendall-Tau Results for - pH

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Field	Significantly decreasing trend	4735	26	1998 - 2023	8.1	-0.171	8.13301	-0.00801	0.0001

pH - Continuous

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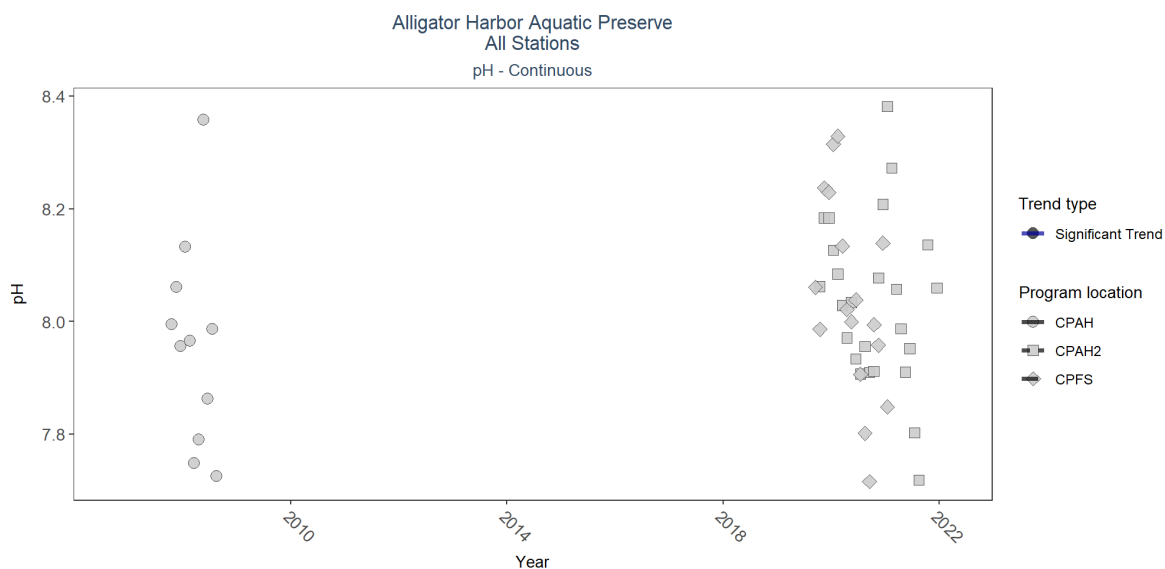All Stations

pH - Continuous

Table 12: Seasonal Kendall-Tau Results for All Stations - pH

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH2	Insufficient data to calculate trend	58321	3	2019 - 2021	8.0	-	-	-	-
CPFS	Insufficient data to calculate trend	34854	3	2019 - 2021	8.0	-	-	-	-
CPAH	Insufficient data to calculate trend	13034	2	2007 - 2008	7.9	-	-	-	-

Water Clarity

Turbidity - Discrete

Turbidity - Discrete, All Depths
Alligator Harbor Aquatic Preserve
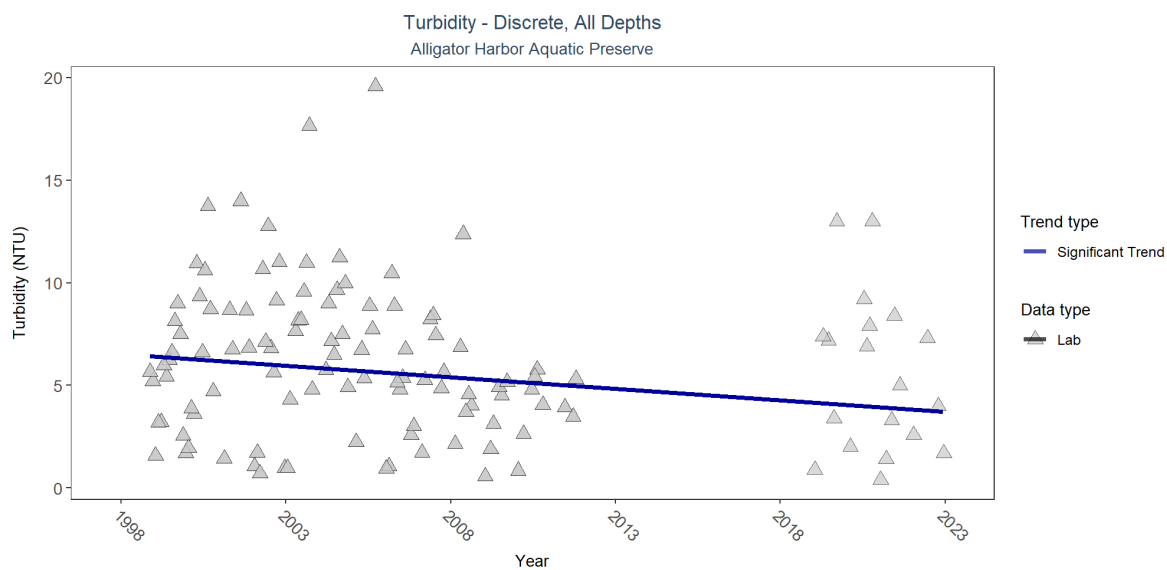
Table 13: Seasonal Kendall-Tau Results for - Turbidity

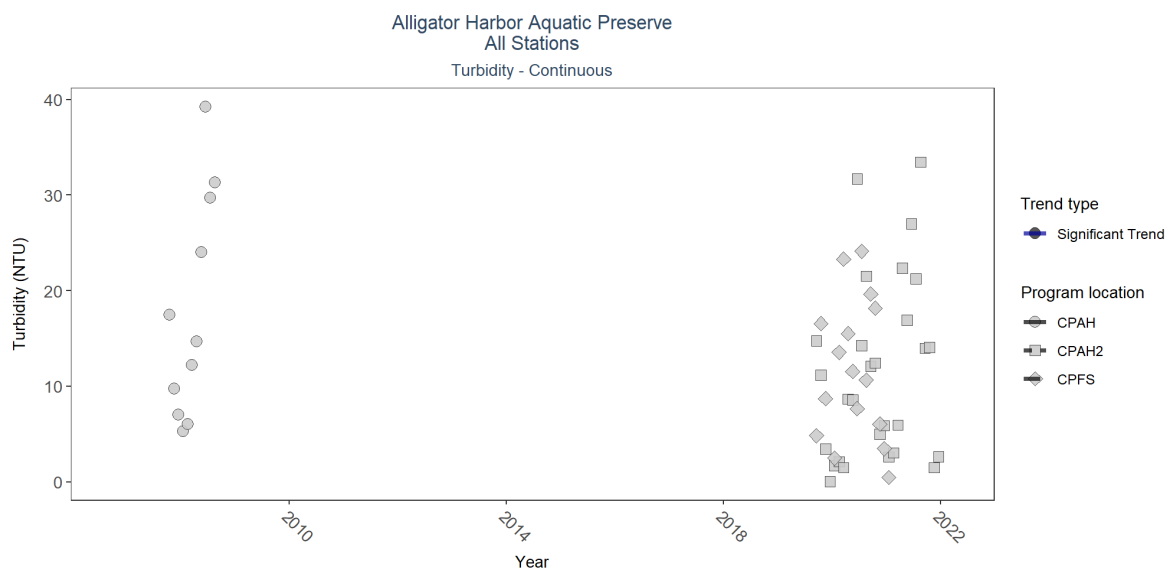| ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	3543	18	1998 - 2022	5.3	-0.2432	6.51312	-0.11185	0.0012

Turbidity - Continuous

Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
CPAH	Insufficient data to calculate trend	12558	2	2007 - 2008	10	-	-	-	-
CPAH2	Insufficient data to calculate trend	61022	3	2019 - 2021	6	-	-	-	-
CPFS	Insufficient data to calculate trend	30018	3	2019 - 2021	4	-	-	-	-

Total Suspended Solids - Discrete

Total Suspended Solids - Discrete, All Depths
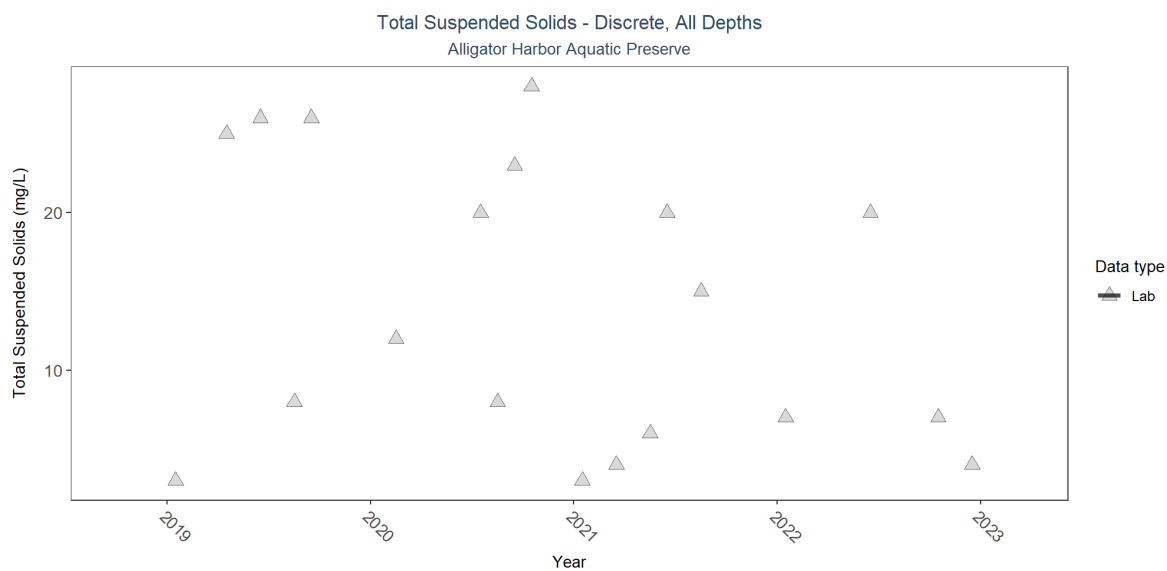Alligator Harbor Aquatic Preserve

Table 15: 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	19	4	2019 - 2022	12	-	-	-	NA

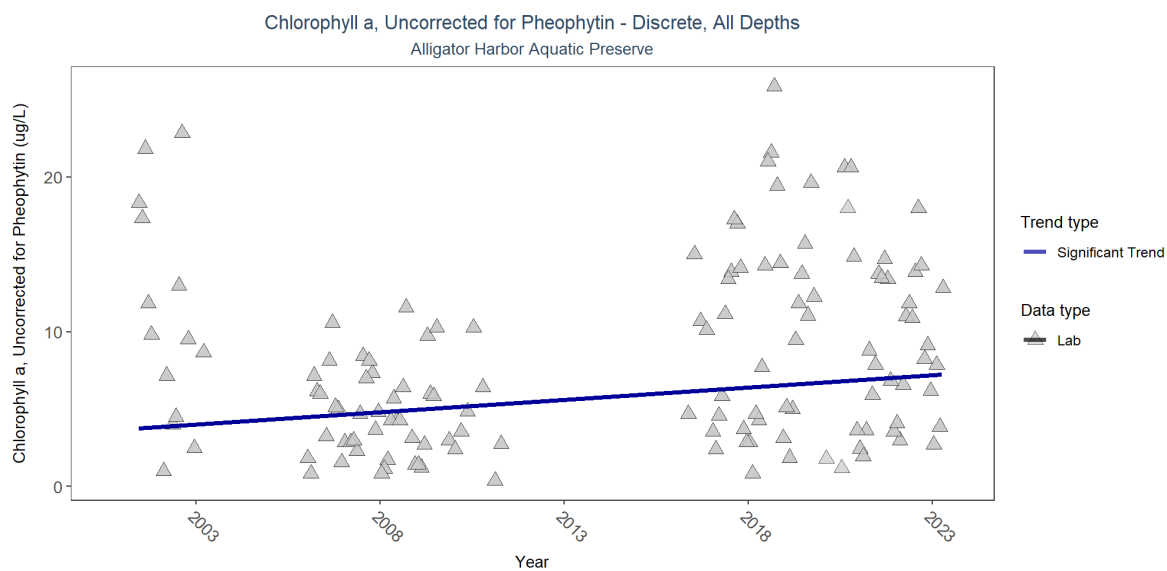# Chlorophyll a, Uncorrected for Pheophytin - Discrete

Table 16: 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	Significantly increasing trend	1053	17	2001 - 2023	6	0.3035	3.70126	0.15873	0.0000

Chlorophyll a, Corrected for Pheophytin - Discrete

Chlorophyll a, Corrected for Pheophytin - Discrete, All Depths
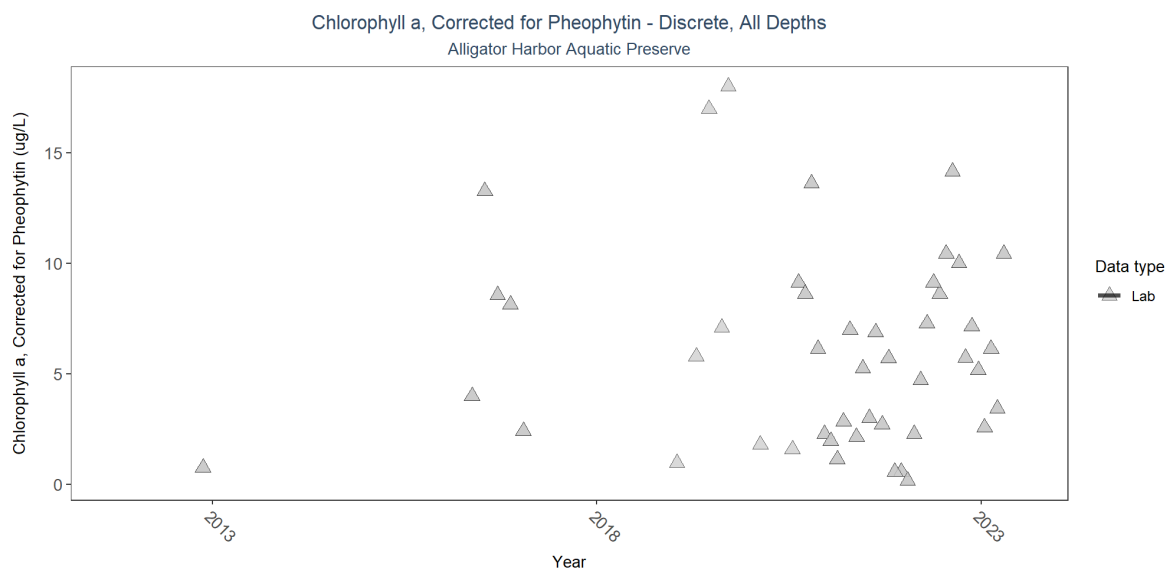Alligator Harbor Aquatic Preserve

Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

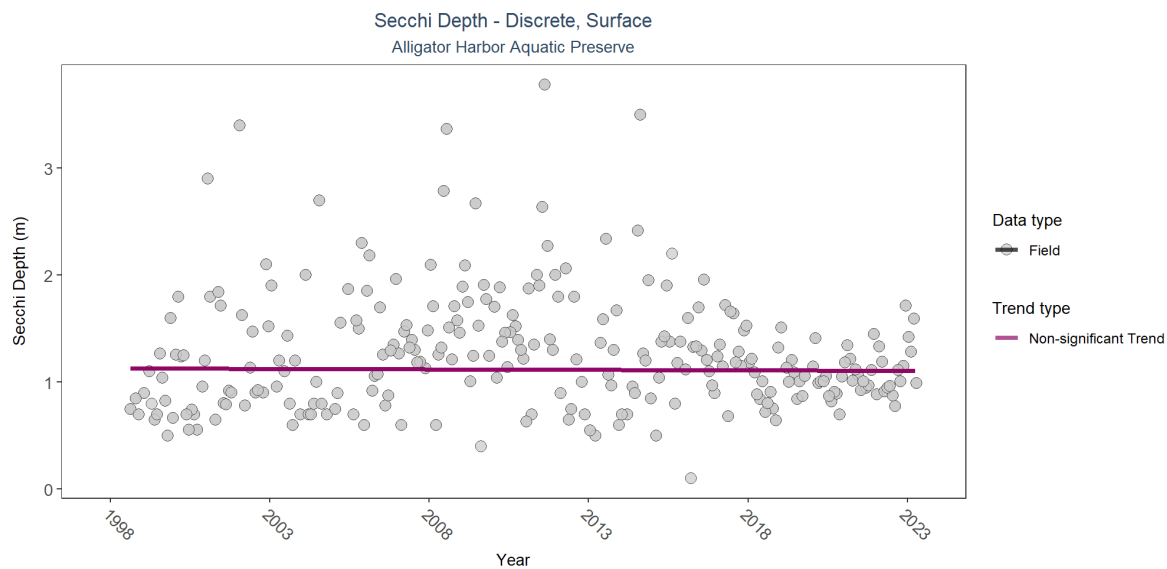| ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Insufficient data to calculate trend	290	8	2012 - 2023	4.4	-	-	-	NA

Secchi Depth - Discrete

Table 18: 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	2344	26	1998 - 2023	1.1	-0.0215	1.13149	-0.00097	0.6515

Colored Dissolved Organic Matter - Discrete

Colored Dissolved Organic Matter - Discrete, All Depths
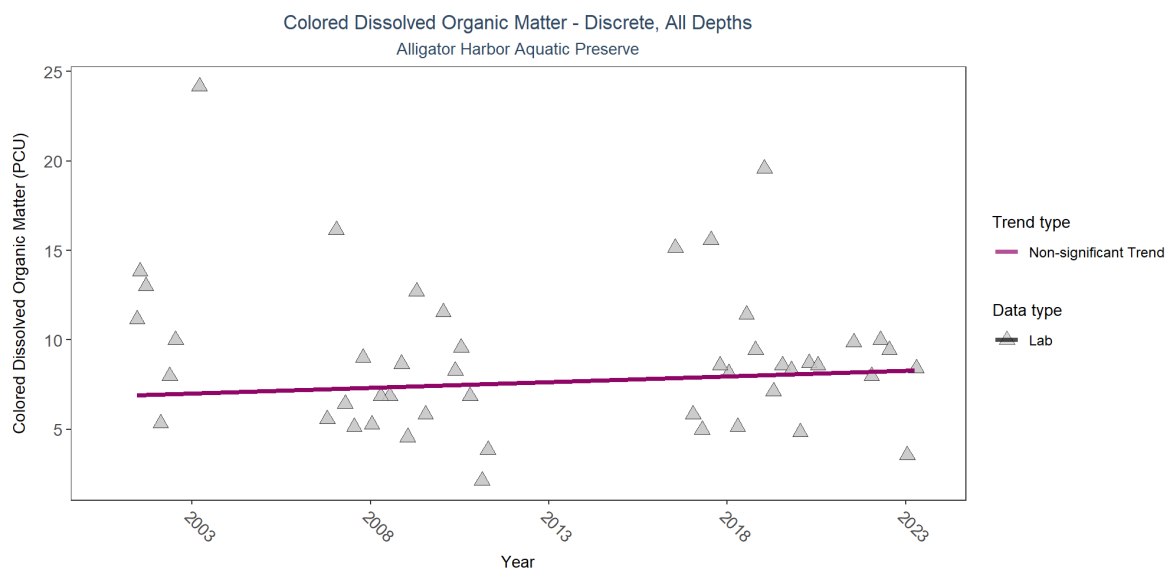Alligator Harbor Aquatic Preserve

Table 19: 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	319	17	2001 - 2023	8	0.0891	6.88049	0.06349	0.5787