# Nature Coast Aquatic Preserve SEACAR Discrete Water Quality Analysis

## Last compiled on 15 August, 2024

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## Indicators

#### Nutrients

#### Total Nitrogen - Discrete

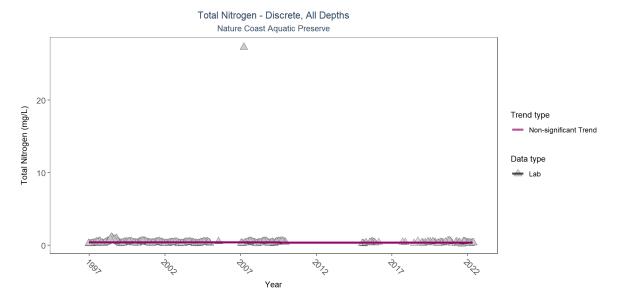


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	No significant trend	5015	21	1996 - 2022	0.39	-0.0319	0.40684	-0.00027	0.6993

## Total Phosphorus - Discrete

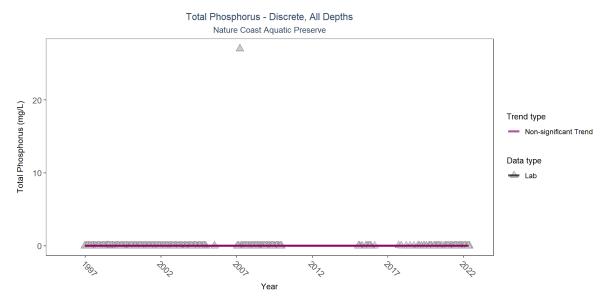


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

${\bf Activity Type}$	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	${\bf Senn Intercept}$	SennSlope	p
Lab	No significant trend	5362	21	1996 - 2022	0.009	-0.1091	0.01192	-0.00007	0.0739

# Water Quality

## Dissolved Oxygen - Discrete

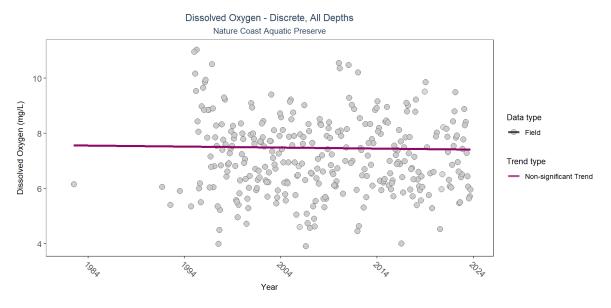


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

${\bf Activity Type}$	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	${\bf Senn Intercept}$	${\bf SennSlope}$	p
Field	No significant trend	8034	34	1982 - 2023	7.06	-0.0236	7.56909	-0.00383	0.5645

#### Dissolved Oxygen - Continuous

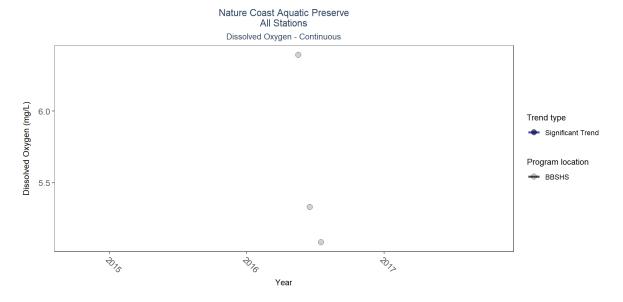


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
BBSHS	Insufficient data to calculate trend	6555	1	2016 - 2016	5.7	-	-	-	-

#### Dissolved Oxygen Saturation - Discrete

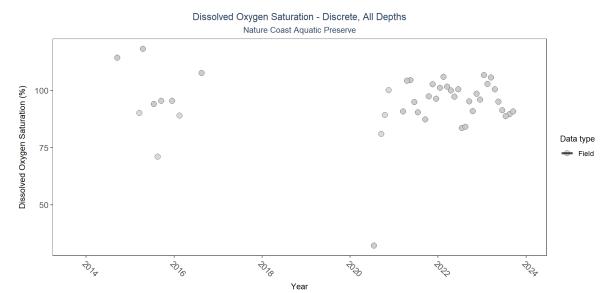


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	р
Field	Insufficient data to calculate trend	1741	7	2014 - 2023	98.8	-	-	-	NA

#### Dissolved Oxygen Saturation - Continuous

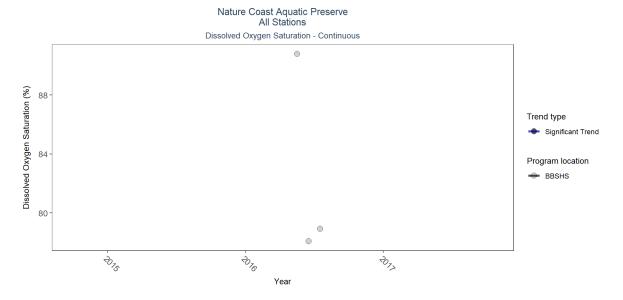


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
BBSHS	Insufficient data to calculate trend	6555	1	2016 - 2016	82.6	-	-	-	_

## Salinity - Discrete

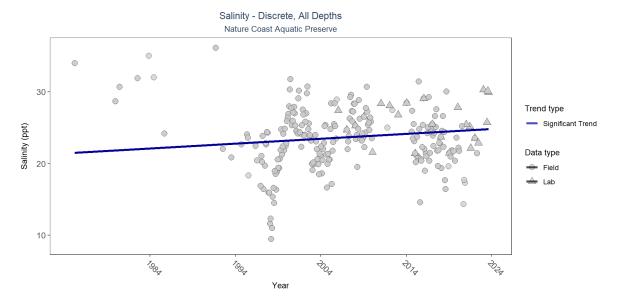


Table 7: Seasonal Kendall-Tau Results for - Salinity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
All	Significantly increasing trend	7177	40	1975 - 2023	24.1	0.0881	21.48119	0.06812	0.0249

## Salinity - Continuous

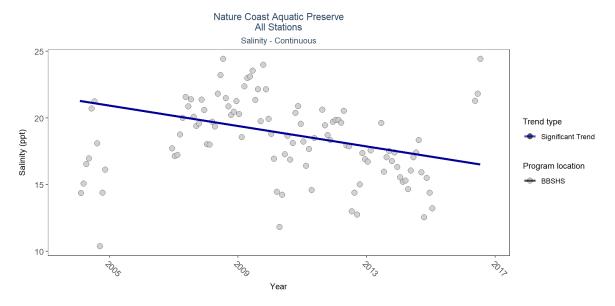


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
BBSHS	Significantly decreasing trend	235670	12	2004 - 2016	18.4	-0.22	21.33	-0.38	0.0050

#### Water Temperature - Discrete

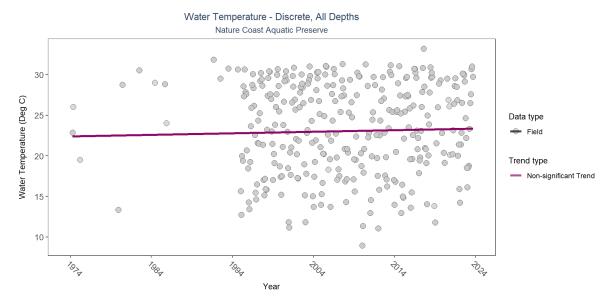


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	${\bf Senn Intercept}$	SennSlope	p
Field	No significant trend	7071	40	1974 - 2023	24.45	0.073	22.38718	0.01923	0.0776

#### Water Temperature - Continuous

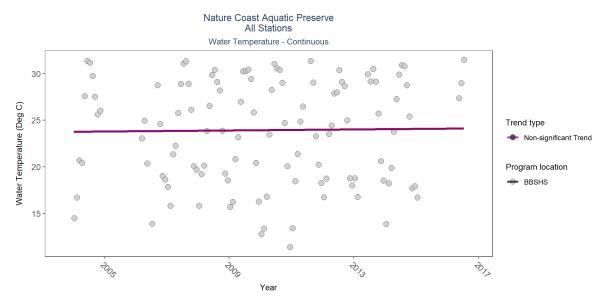


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

${\bf Program Location ID}$	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
BBSHS	No significant trend	244110	12	2004 - 2016	24.5	0.05	23.77	0.03	0.5239

## pH - Discrete

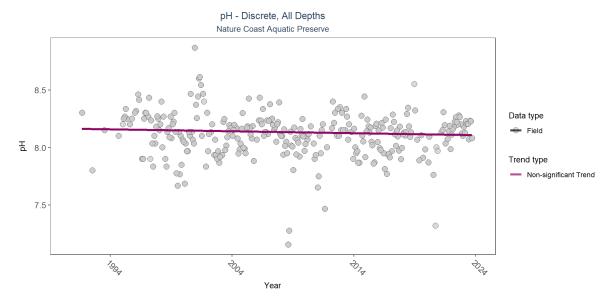


Table 11: Seasonal Kendall-Tau Results for -  $\rm pH$ 

${\bf Activity Type}$	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	${\bf Senn Intercept}$	SennSlope	p
Field	No significant trend	5491	33	1991 - 2023	8.16	-0.0567	8.1646	-0.00175	0.1739

## pH - Continuous

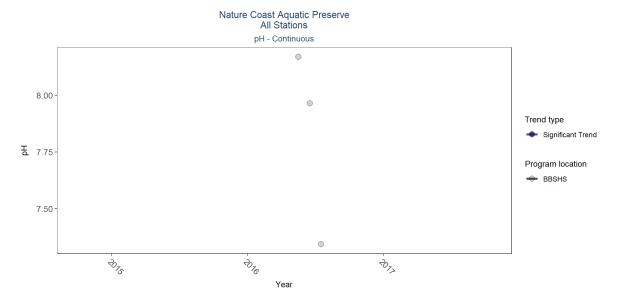


Table 12: Seasonal Kendall-Tau Results for All Stations - pH  $\,$ 

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	р
BBSHS	Insufficient data to calculate trend	6555	1	2016 - 2016	8	-	-	-	-

# Water Clarity

## Turbidity - Discrete

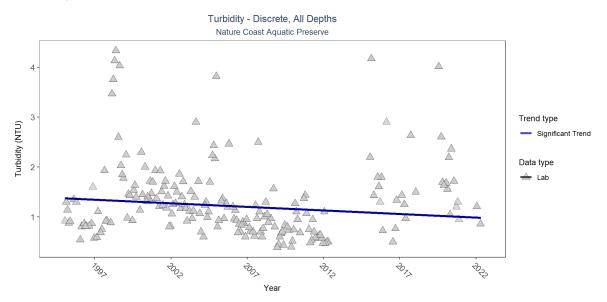


Table 13: Seasonal Kendall-Tau Results for - Turbidity

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	p
Lab	Significantly decreasing trend	1117	25	1995 - 2022	1	-0.1558	1.37005	-0.01433	0.0101

## Turbidity - Continuous

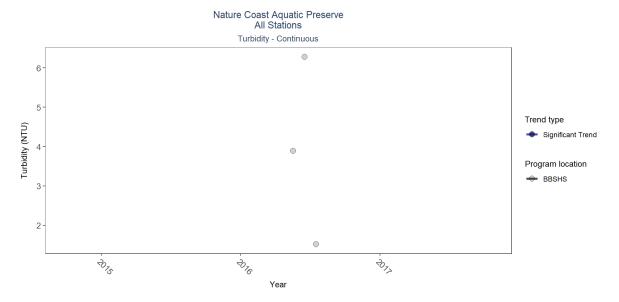


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

ProgramLocationID	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	р
BBSHS	Insufficient data to calculate trend	6368	1	2016 - 2016	2	-	-	-	-

## Total Suspended Solids - Discrete

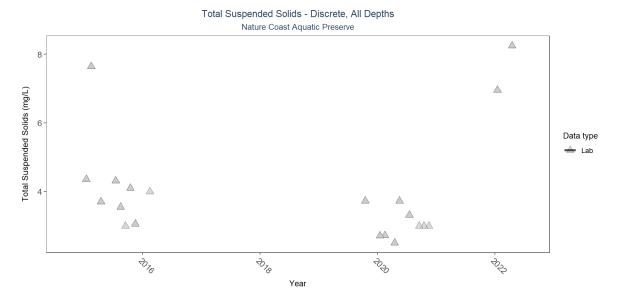


Table 15: Seasonal Kendall-Tau Results for - Total Suspended Solids

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	р
Lab	Insufficient data to calculate trend	382	5	2015 - 2022	3.435	-	_	-	NA

#### Chlorophyll a, Uncorrected for Pheophytin - Discrete

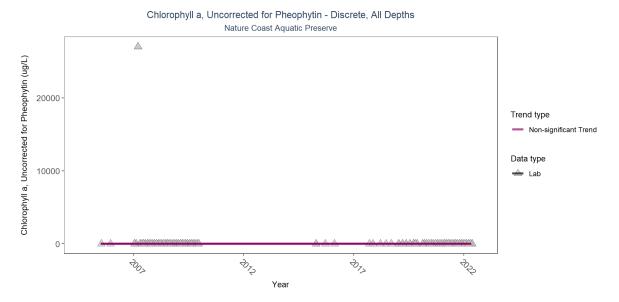


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

${\bf Activity Type}$	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	${\bf Senn Intercept}$	SennSlope	p
Lab	No significant trend	2618	12	2005 - 2022	1	0.0494	1.55165	0.00674	0.5057

#### Chlorophyll a, Corrected for Pheophytin - Discrete

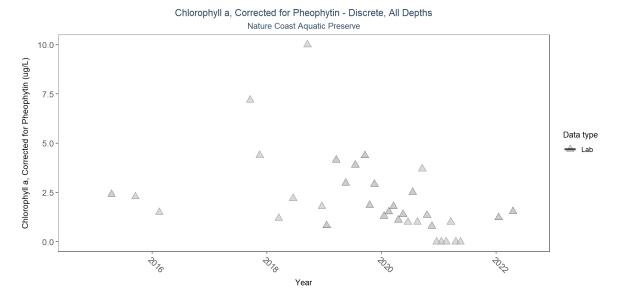


Table 17: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	SennIntercept	SennSlope	р
Lab	Insufficient data to calculate trend	306	8	2015 - 2022	1	-	_	-	NA

## Secchi Depth - Discrete

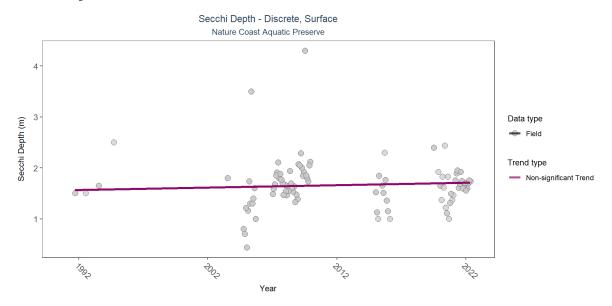


Table 18: Seasonal Kendall-Tau Results for - Secchi Depth

ActivityType	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	${\bf Senn Intercept}$	SennSlope	p
Field	No significant trend	2861	16	1991 - 2022	1.6	0.098	1.56487	0.00464	0.2259

#### Colored Dissolved Organic Matter - Discrete

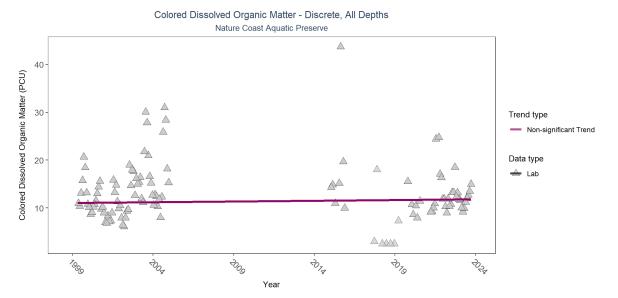


Table 19: Seasonal Kendall-Tau Results for - Colored Dissolved Organic Matter

${\bf Activity Type}$	Statistical Trend	N-Data	N-Years	Period of Record	Median	tau	${\bf Senn Intercept}$	SennSlope	p
Lab	No significant trend	4394	14	1999 - 2023	10.2	0.0966	11.01554	0.03112	0.2168