# Coupon Bight Aquatic Preserve

SEACAR Water Quality Analysis

Last compiled on 09 January, 2025

## Contents

# Indicators

## Nutrients

### Total Nitrogen - Discrete

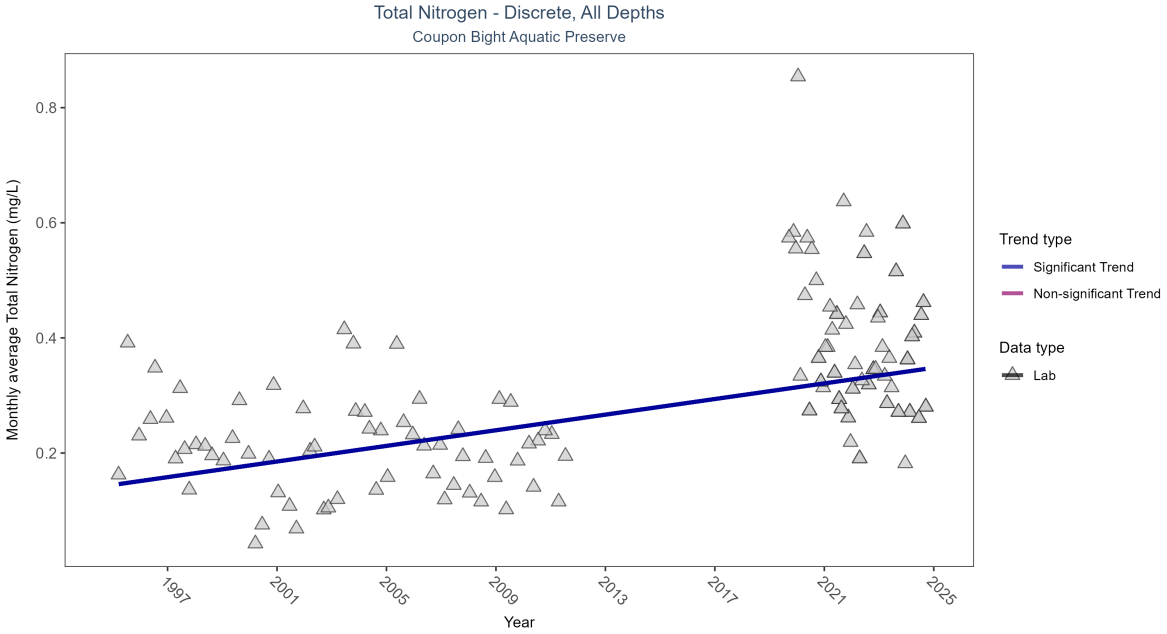


Table 1: Seasonal Kendall-Tau Results for - Total Nitrogen

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Lab | Significantly increasing trend | 161 | 23 | 1995 - 2024 | 0.285 | 0.3474 | 0.14455 | 0.00679 | 0.0000 |

## Total Phosphorus - Discrete

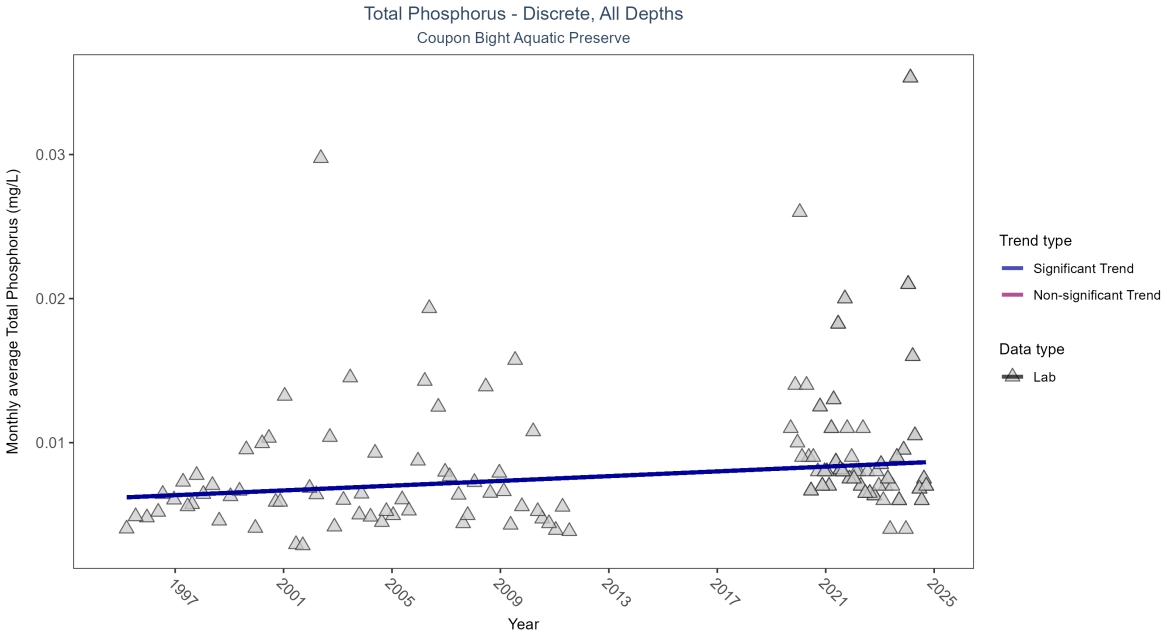


Table 2: Seasonal Kendall-Tau Results for - Total Phosphorus

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Lab | Significantly increasing trend | 178 | 23 | 1995 - 2024 | 0.00715 | 0.2168 | 0.00619 | 0.00008 | 0.0044 |

# Water Quality

## Dissolved Oxygen - Discrete

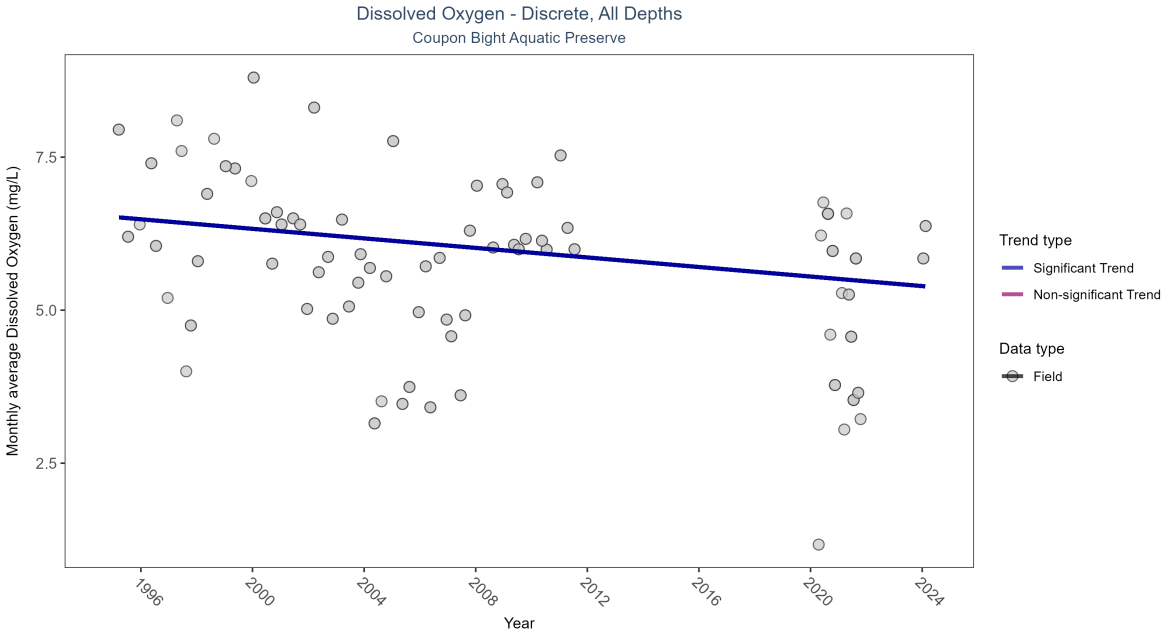


Table 3: Seasonal Kendall-Tau Results for - Dissolved Oxygen

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Field | Significantly decreasing trend | 159 | 20 | 1995 - 2024 | 5.99052 | -0.2504 | 6.52392 | -0.03898 | 0.0220 |

## Dissolved Oxygen - Continuous

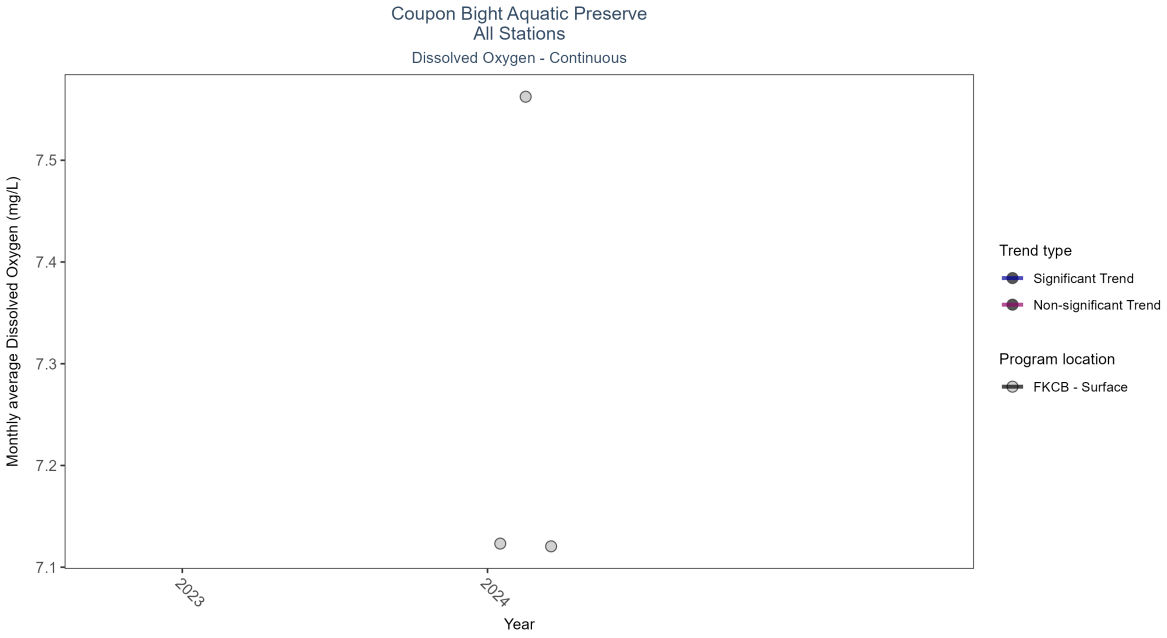


Table 4: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen

| ProgramLocationID | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| FKCB | Insufficient data to calculate trend | 6522 | 1 | 2024 - 2024 | 7.2 | - | - | - | - |

## Dissolved Oxygen Saturation - Discrete

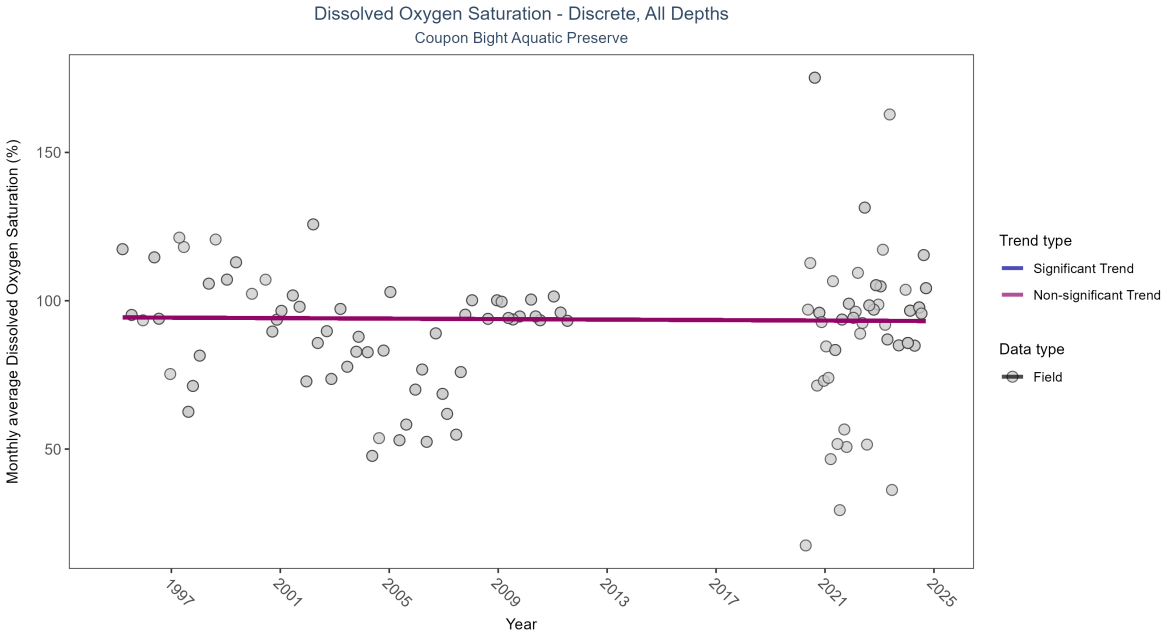


Table 5: Seasonal Kendall-Tau Results for - Dissolved Oxygen Saturation

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Field | No significant trend | 190 | 22 | 1995 - 2024 | 93.64996 | -0.0039 | 94.38476 | -0.04099 | 0.8600 |

## Dissolved Oxygen Saturation - Continuous

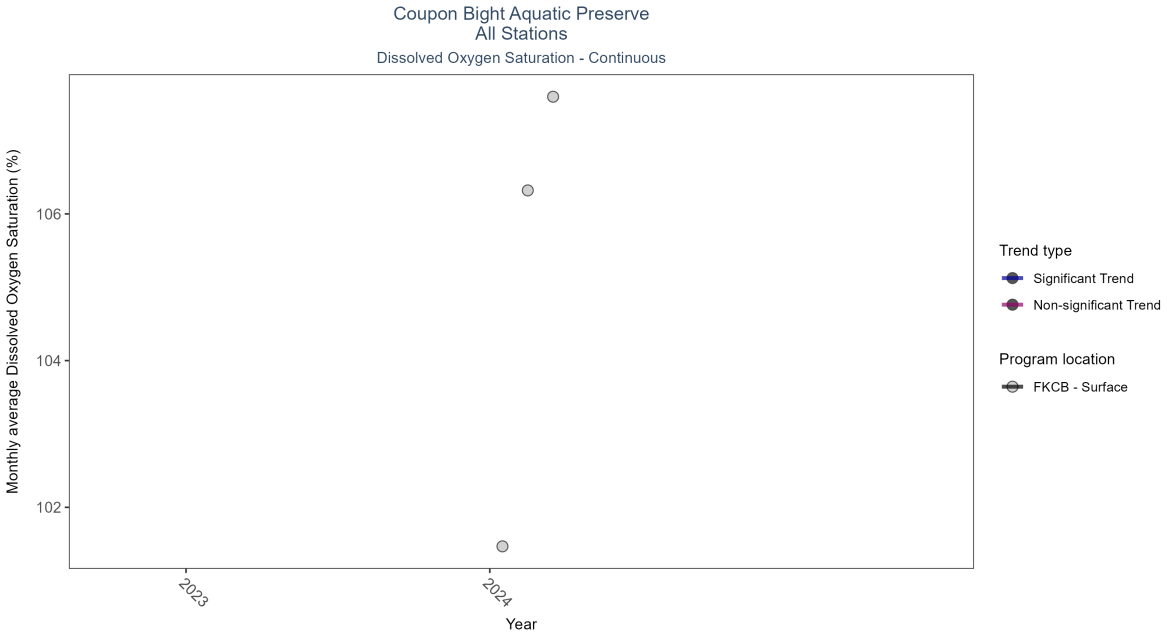


Table 6: Seasonal Kendall-Tau Results for All Stations - Dissolved Oxygen Saturation

| ProgramLocationID | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| FKCB | Insufficient data to calculate trend | 6523 | 1 | 2024 - 2024 | 103.5 | - | - | - | - |

## Salinity - Discrete

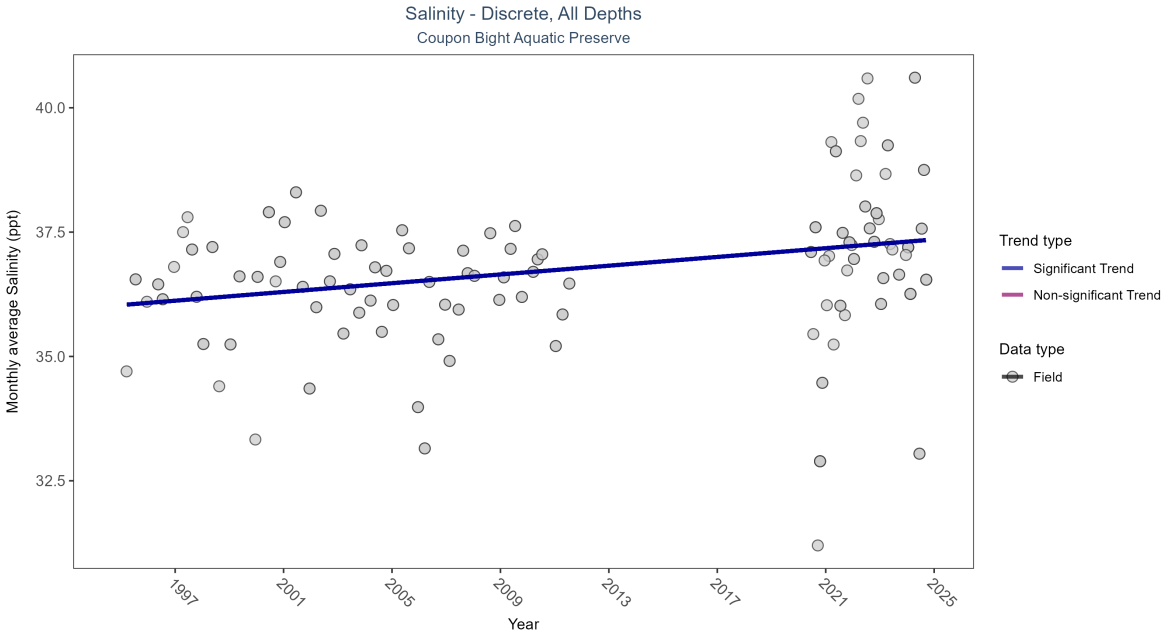


Table 7: Seasonal Kendall-Tau Results for - Salinity

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| All | Significantly increasing trend | 200 | 22 | 1995 - 2024 | 36.7 | 0.3305 | 36.03288 | 0.04398 | 0.0000 |

## Salinity - Continuous

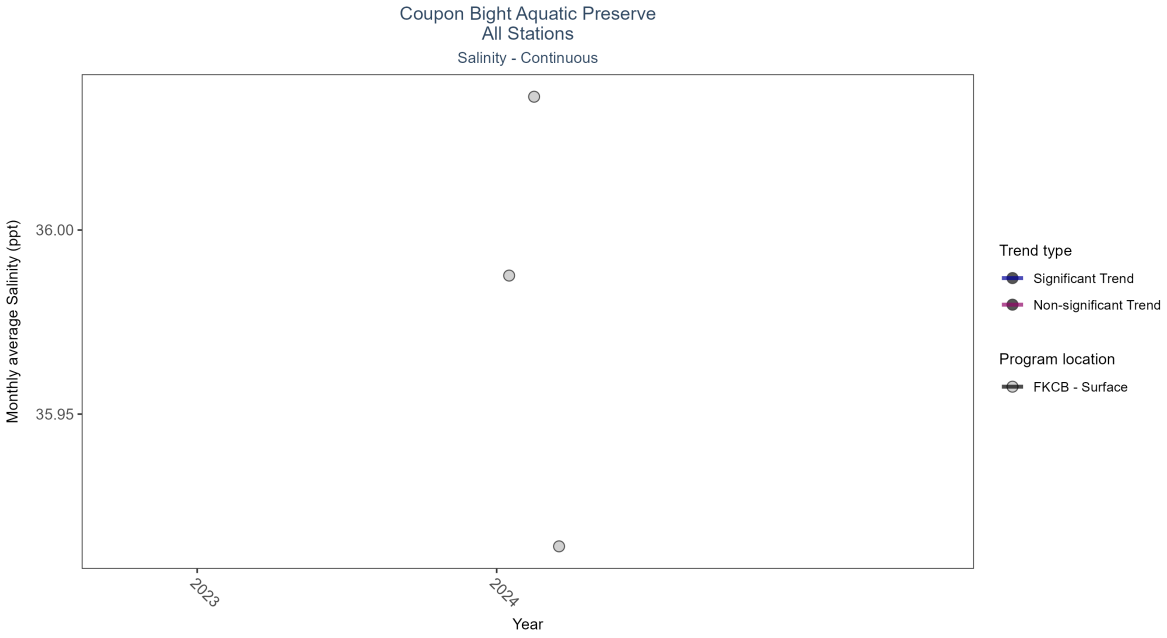


Table 8: Seasonal Kendall-Tau Results for All Stations - Salinity

| ProgramLocationID | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| FKCB | Insufficient data to calculate trend | 6518 | 1 | 2024 - 2024 | 35.9 | - | - | - | - |

### Water Temperature - Discrete

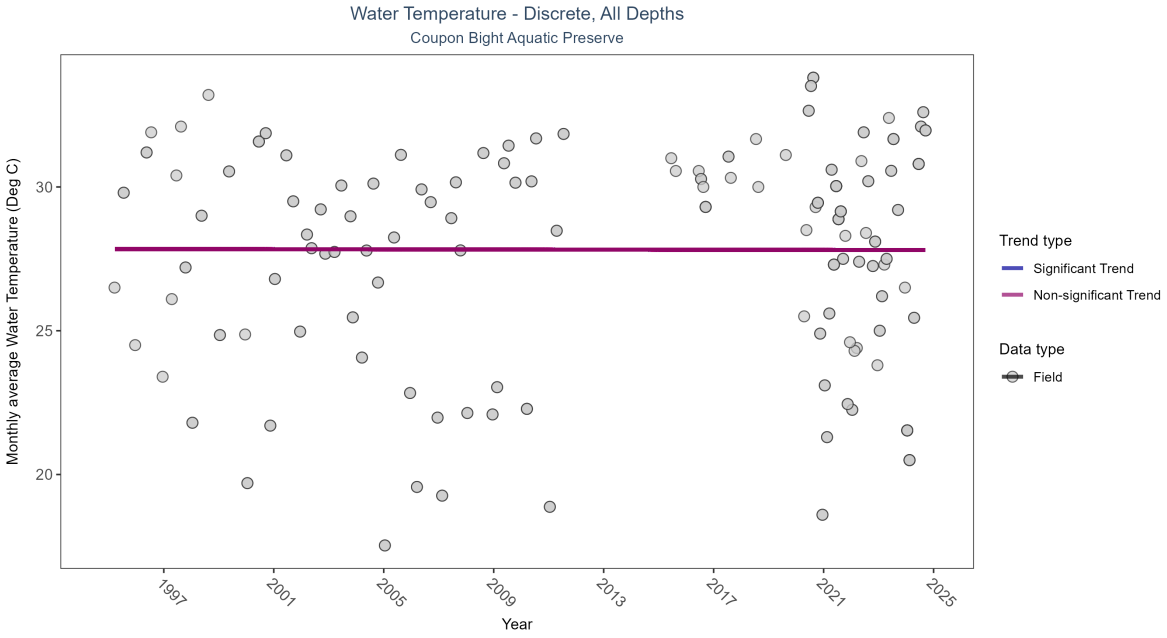


Table 9: Seasonal Kendall-Tau Results for - Water Temperature

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Field | No significant trend | 240 | 27 | 1995 - 2024 | 28.49565 | -0.0058 | 27.84285 | -0.00126 | 0.8520 |

## Water Temperature - Continuous

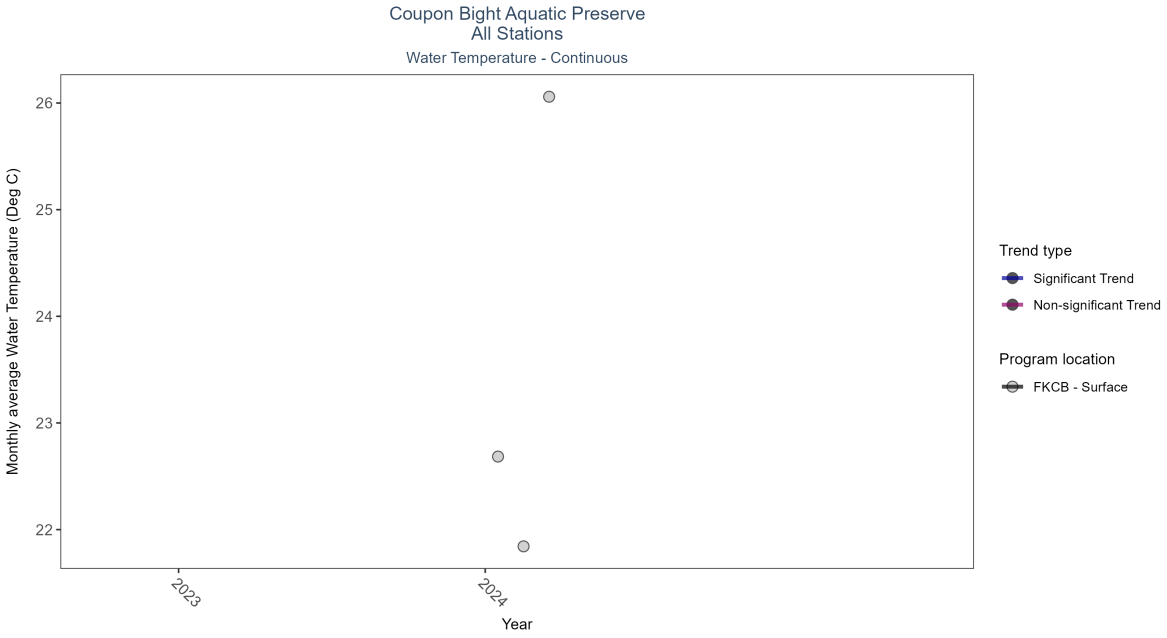


Table 10: Seasonal Kendall-Tau Results for All Stations - Water Temperature

| ProgramLocationID | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| FKCB | Insufficient data to calculate trend | 6523 | 1 | 2024 - 2024 | 23.7 | - | - | - | - |

## pH - Discrete

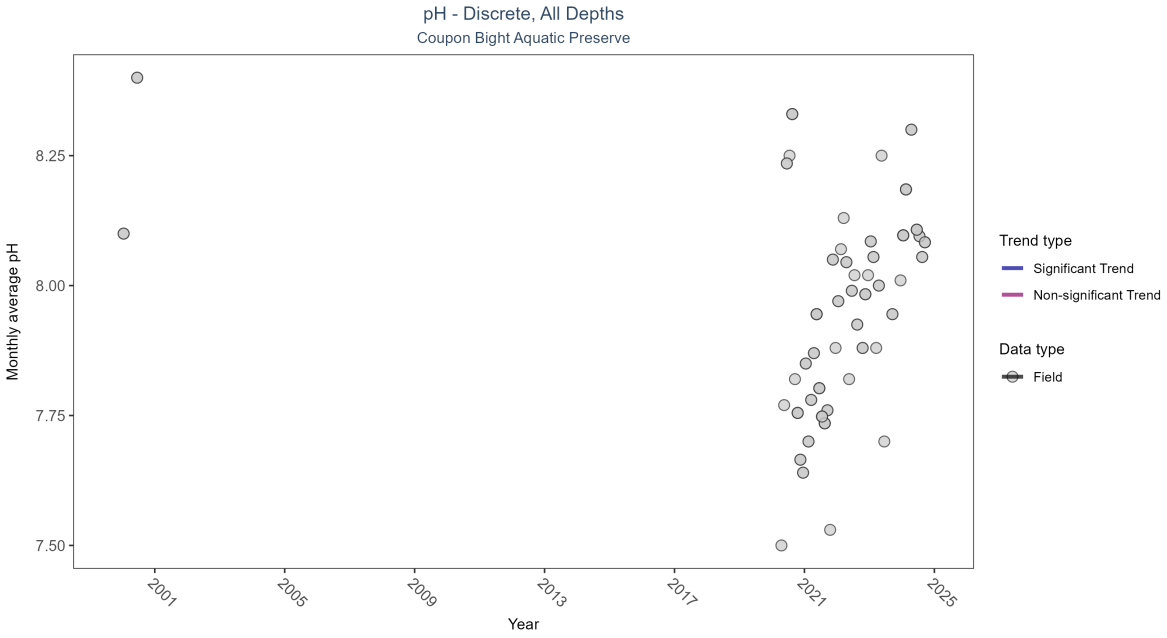


Table 11: Seasonal Kendall-Tau Results for - pH

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Field | Insufficient data to calculate trend | 105 | 6 | 2000 - 2024 | 8 | - | - | - | NA |

## pH - Continuous

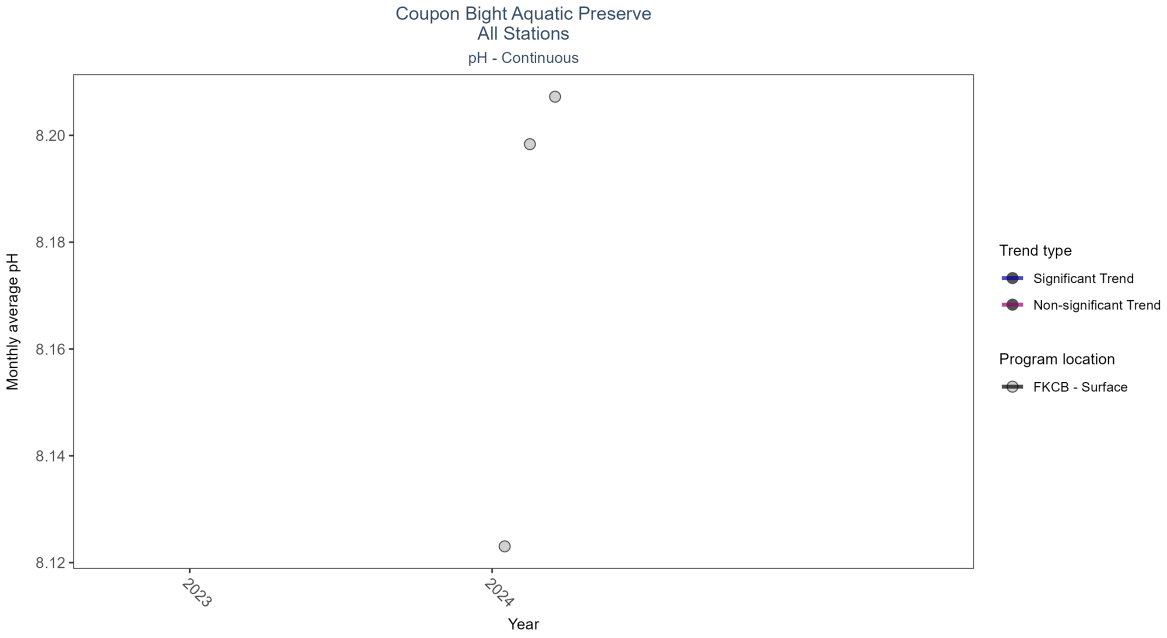


Table 12: Seasonal Kendall-Tau Results for All Stations - pH

| ProgramLocationID | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| FKCB | Insufficient data to calculate trend | 6523 | 1 | 2024 - 2024 | 8.2 | - | - | - | - |

# Water Clarity

## Turbidity - Discrete

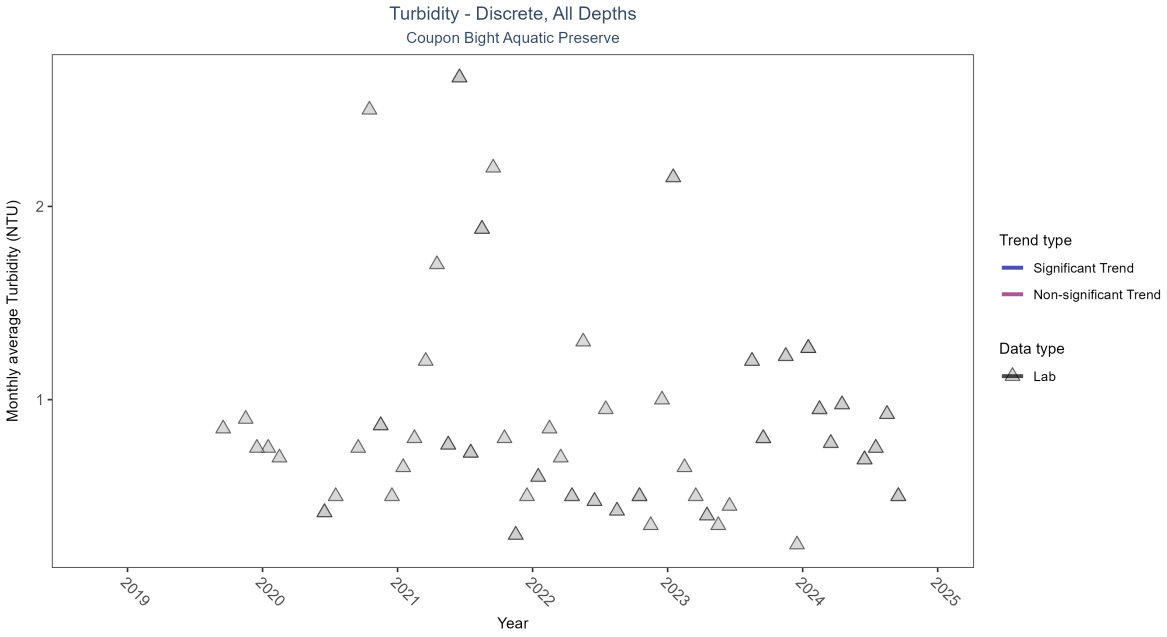


Table 13: Seasonal Kendall-Tau Results for - Turbidity

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Lab | Insufficient data to calculate trend | 95 | 6 | 2019 - 2024 | 0.7 | - | - | - | NA |

## Turbidity - Continuous

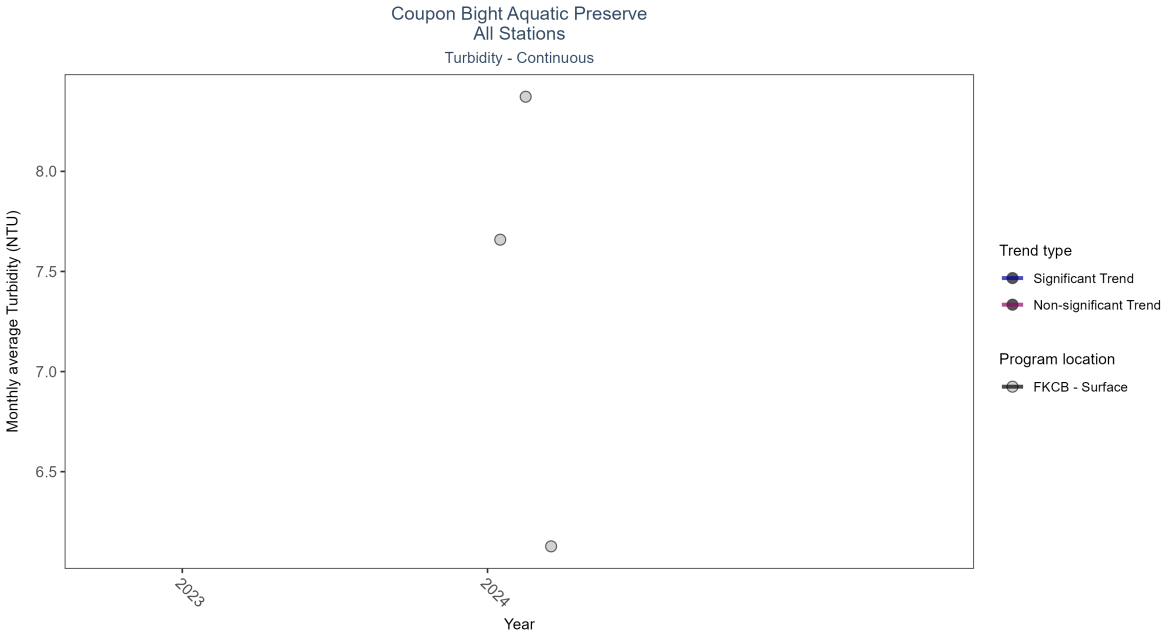


Table 14: Seasonal Kendall-Tau Results for All Stations - Turbidity

| ProgramLocationID | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| FKCB | Insufficient data to calculate trend | 6517 | 1 | 2024 - 2024 | 5 | - | - | - | - |

## Chlorophyll a, Uncorrected for Pheophytin - Discrete

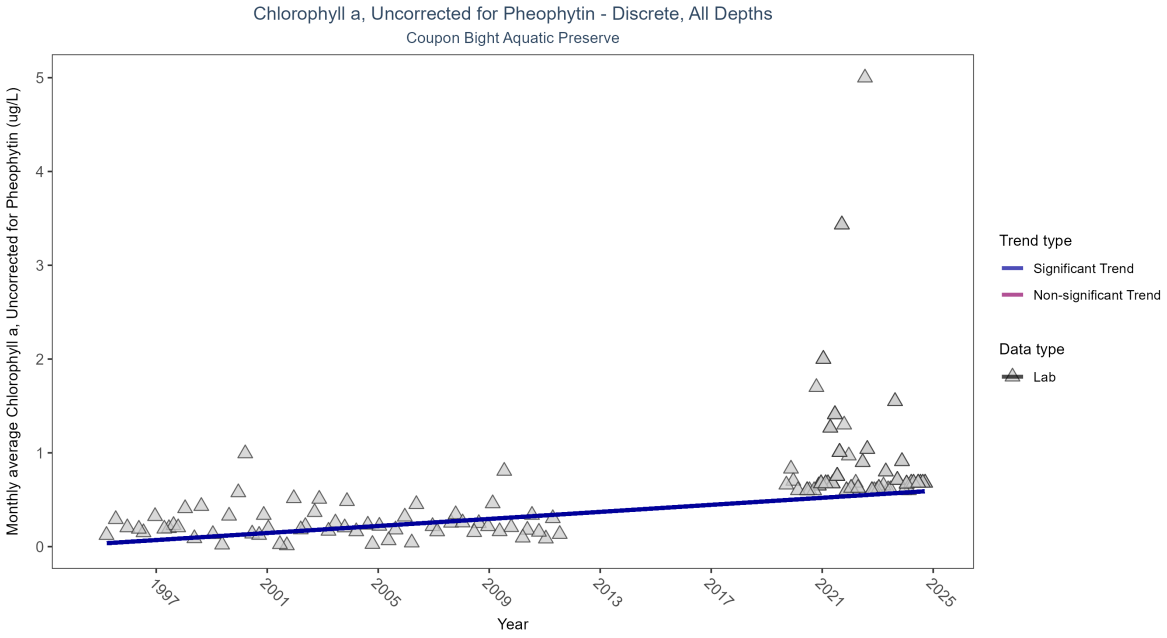


Table 15: Seasonal Kendall-Tau Results for - Chlorophyll a, Uncorrected for Pheophytin

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Lab | Significantly increasing trend | 182 | 23 | 1995 - 2024 | 0.6 | 0.4324 | 0.0325 | 0.01877 | 0.0000 |

## Chlorophyll a, Corrected for Pheophytin - Discrete

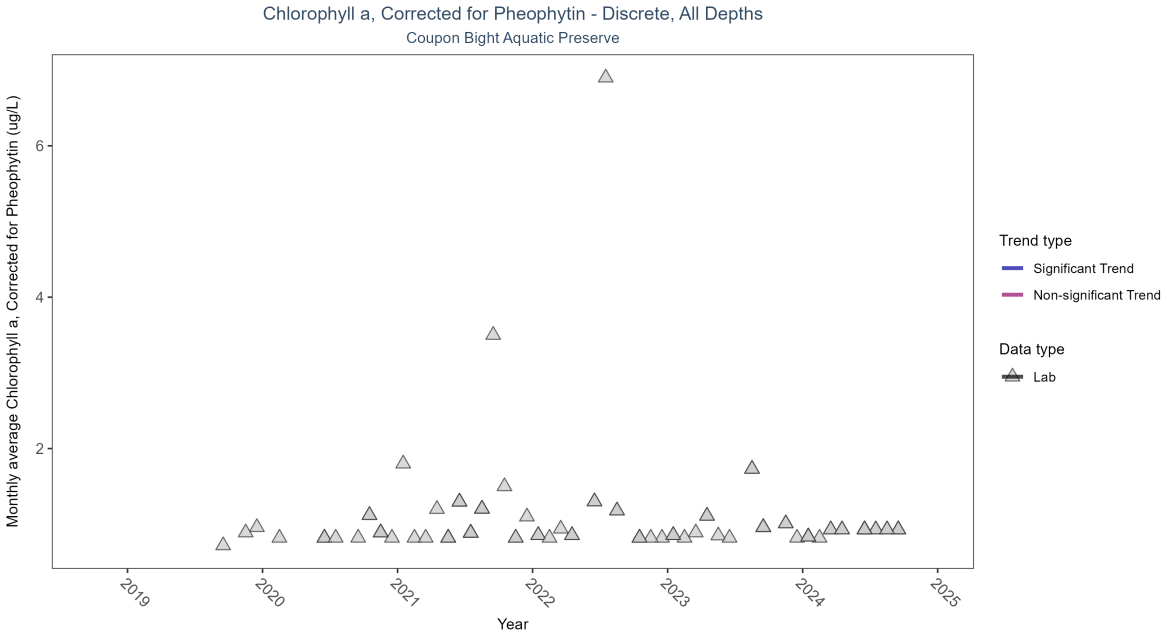


Table 16: Seasonal Kendall-Tau Results for - Chlorophyll a, Corrected for Pheophytin

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Lab | Insufficient data to calculate trend | 90 | 6 | 2019 - 2024 | 0.89 | - | - | - | NA |

## Secchi Depth - Discrete

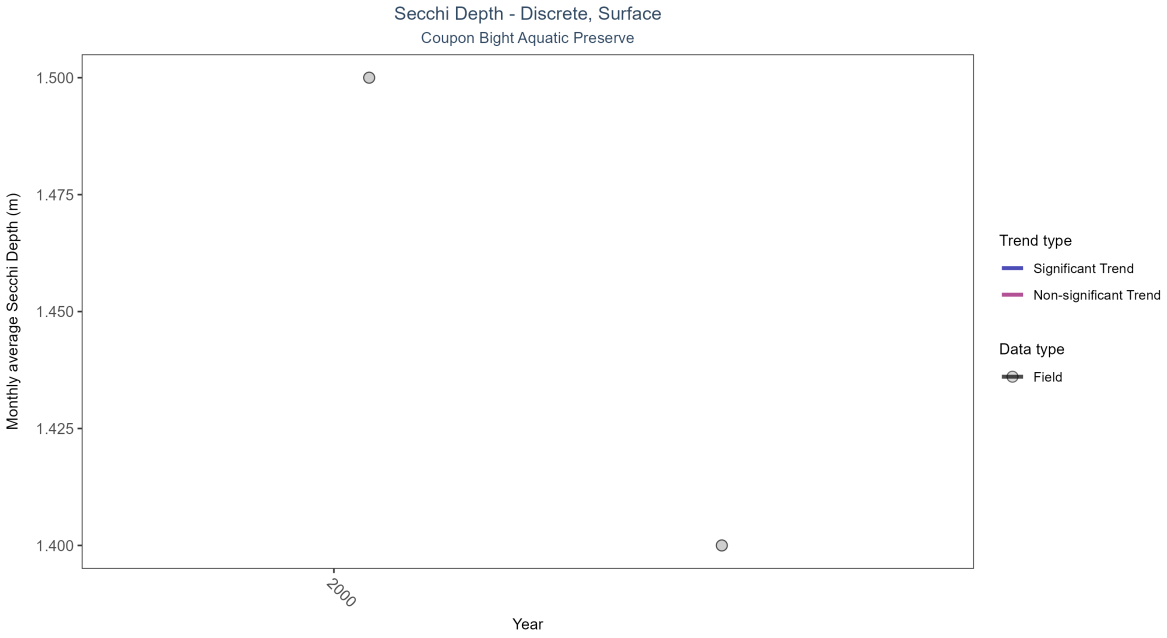


Table 17: Seasonal Kendall-Tau Results for - Secchi Depth

| ActivityType | Statistical Trend | N-Data | N-Years | Period of Record | Median | tau | SennIntercept | SennSlope | p |
|---|---|---|---|---|---|---|---|---|---|
| Field | Insufficient data to calculate trend | 4 | 1 | 2000 - 2000 | 1.45 | - | - | - | NA |