Status and Trends Text

SEACAR

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# Alligator Harbor Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 2008 and 2023 based on an aggregate model of manatee grass, shoal grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1998 and 2024 based on an aggregate model of analyses results from 4 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1998 and 2024.

## Nekton

Data for nekton richness is needed for Alligator Harbor AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Alligator Harbor AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Alligator Harbor AP.

### Percent Cover

Data for coral percent cover is needed for Alligator Harbor AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Apalachicola Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 2003 and 2023 based on shoal grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1992 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1992 and 2024.

## Nekton

Between 2000 and 2024 annual trawl surveys showed average nekton richness per 100 square meters was 1.13 species, with a maximum of 5.56 species per 100 square meters in 2010 and a minimum of 0.19 species per 100 square meters in 2015.

## Coastal Wetlands

Between 2014 and 2023, species composition surveys showed an annual average of 1.76 species across all species groups, with a maximum of 5 in 2018 and a minimum of 1 in 2022.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Apalachicola Bay AP.

### Percent Cover

Data for coral percent cover is needed for Apalachicola Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Apalachicola Bay AP has shown a decrease between 2016 and 2023 for restored reefs.

### Percent Live

Between 2016 and 2023, data showed a decrease in the proportion of live oysters within Apalachicola Bay AP for restored reefs.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Apalachicola National Estuarine Research Reserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 2003 and 2023 based on shoal grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1992 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1992 and 2024.

## Nekton

Between 2000 and 2024 annual trawl surveys showed average nekton richness per 100 square meters was 1.13 species, with a maximum of 5.93 species per 100 square meters in 2010 and a minimum of 0.19 species per 100 square meters in 2015.

## Coastal Wetlands

Between 2014 and 2023, species composition surveys showed an annual average of 1.76 species across all species groups, with a maximum of 5 in 2018 and a minimum of 1 in 2022.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Apalachicola NERR.

### Percent Cover

Data for coral percent cover is needed for Apalachicola NERR.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Apalachicola NERR has shown a decrease between 2016 and 2023 for restored reefs.

### Percent Live

Between 2016 and 2023, data showed a decrease in the proportion of live oysters within Apalachicola NERR for restored reefs.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Banana River Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1994 and 2023 based on an aggregate model of Halophila spp., manatee grass, shoal grass, and widgeon grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1991 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1990 and 2024.

## Nekton

Data for nekton richness is needed for Banana River AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Banana River AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Banana River AP.

### Percent Cover

Data for coral percent cover is needed for Banana River AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Big Bend Seagrasses Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 2000 and 2024 based on an aggregate model of manatee grass, shoal grass, star grass, turtle grass, and widgeon grass analyses results.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1990 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1985 and 2024.

## Nekton

Data for nekton richness is needed for Big Bend Seagrasses AP.

## Coastal Wetlands

Monitoring in 2016 showed 3 species across all species groups in Big Bend Seagrasses AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Big Bend Seagrasses AP.

### Percent Cover

Data for coral percent cover is needed for Big Bend Seagrasses AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Data for shell height is needed for Big Bend Seagrasses AP.

# Biscayne Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1999 and 2023 based on an aggregate model of Halophila spp., manatee grass, shoal grass, turtle grass, and attached algae analyses results.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1993 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1970 and 2024.

## Nekton

Data for nekton richness is needed for Biscayne Bay AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Biscayne Bay AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Between 2010 and 2017, species richness surveys in Biscayne Bay AP showed an average of 1.83 grazers and reef dependent species, with a maximum of 2 in 2010 and a minimum of 1 in 2013.

### Percent Cover

Data for coral percent cover is needed for Biscayne Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Biscayne Bay-Cape Florida to Monroe County Line Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Biscayne Bay-Cape Florida to Monroe County Line AP.  
## Water Quality

## Nekton

Data for nekton richness is needed for Biscayne Bay-Cape Florida to Monroe County Line AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Biscayne Bay-Cape Florida to Monroe County Line AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Monitoring in 2015 showed 2 grazers and reef dependent species in Biscayne Bay-Cape Florida to Monroe County Line AP.

### Percent Cover

Between 2013 and 2021, data monitoring efforts in Biscayne Bay-Cape Florida to Monroe County Line AP showed no significant change in the percent cover of coral species.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Boca Ciega Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1998 and 2023 based on an aggregate model of both shoal grass and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1994 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1974 and 2024.

## Nekton

Between 1989 and 2022 annual average nekton richness per 100 square meters across all survey gear types was 0.47 species, with a maximum of 3.78 species per 100 square meters in 2022 and a minimum of 0.02 species per 100 square meters in 2005.

## Coastal Wetlands

Data for wetlands species composition is needed for Boca Ciega Bay AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Boca Ciega Bay AP.

### Percent Cover

Data for coral percent cover is needed for Boca Ciega Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for Boca Ciega Bay AP.

### Percent Live

Data for percent live is needed for Boca Ciega Bay AP.

### Shell Height

Data for shell height is needed for Boca Ciega Bay AP.

# Cape Haze Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1998 and 2023 based on an aggregate model of manatee grass, shoal grass, turtle grass, widgeon grass, and attached algae analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1994 and 2025 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1989 and 2025.

## Nekton

Data for nekton richness is needed for Cape Haze AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Cape Haze AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Cape Haze AP.

### Percent Cover

Data for coral percent cover is needed for Cape Haze AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Cape Romano-Ten Thousand Islands Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Cape Romano-Ten Thousand Islands AP.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1989 and 2024 based on an aggregate model of analyses results from 4 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1989 and 2024.

## Nekton

Between 1999 and 2020 annual trawl surveys showed average nekton richness per 100 square meters was 0.67 species, with a maximum of 3.24 species per 100 square meters in 2010 and a minimum of 0.13 species per 100 square meters in 2015.

## Coastal Wetlands

Data for wetlands species composition is needed for Cape Romano-Ten Thousand Islands AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Cape Romano-Ten Thousand Islands AP.

### Percent Cover

Data for coral percent cover is needed for Cape Romano-Ten Thousand Islands AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Cockroach Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover increased between 2000 and 2023 based on an aggregate model of manatee grass, shoal grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1995 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1989 and 2024.

## Nekton

Between 1989 and 2022 annual average nekton richness per 100 square meters across all survey gear types was 0.31 species, with a maximum of 3.3 species per 100 square meters in 1989 and a minimum of 0.02 species per 100 square meters in 1997.

## Coastal Wetlands

Monitoring in 2015 showed 2 species across all species groups in Cockroach Bay AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Cockroach Bay AP.

### Percent Cover

Data for coral percent cover is needed for Cockroach Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Kristin Jacobs Coral Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Kristin Jacobs Coral AP.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1997 and 2024 based on an aggregate model of analyses results from 1 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1970 and 2023.

## Nekton

Data for nekton richness is needed for Kristin Jacobs Coral AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Kristin Jacobs Coral AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Between 1985 and 2020, species richness surveys in Kristin Jacobs Coral AP showed an average of 193.88 grazers and reef dependent species, with a maximum of 302 in 2014 and a minimum of 1 in 2020.

### Percent Cover

Between 2003 and 2021, data monitoring efforts in Kristin Jacobs Coral AP showed an increase in the percent cover of coral species.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Coupon Bight Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Coupon Bight AP.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1995 and 2024 based on an aggregate model of analyses results from 1 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1995 and 2024.

## Nekton

Data for nekton richness is needed for Coupon Bight AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Coupon Bight AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Between 1999 and 2017, species richness surveys in Coupon Bight AP showed an average of 182.12 grazers and reef dependent species, with a maximum of 284 in 2012 and a minimum of 2 in 2013.

### Percent Cover

With only 1 year of data available, there was insufficient data to assess long-term coral species cover in Coupon Bight AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Estero Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 2002 and 2023 based on an aggregate model of manatee grass, paddle grass, shoal grass, turtle grass, and attached algae analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1992 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1971 and 2024.

## Nekton

Data for nekton richness is needed for Estero Bay AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Estero Bay AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Estero Bay AP.

### Percent Cover

Data for coral percent cover is needed for Estero Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Estero Bay AP has shown a decrease between 2014 and 2024 for natural reefs.

### Percent Live

Between 2016 and 2024, data showed a decrease in the proportion of live oysters within Estero Bay AP for natural reefs.

### Shell Height

Between 2014 and 2024, data showed an increase in the shell height of ≥75mm live oysters within Estero Bay AP for natural reefs.

# Florida Keys National Marine Sanctuary

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Florida Keys NMS.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1989 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1970 and 2024.

## Nekton

Data for nekton richness is needed for Florida Keys NMS.

## Coastal Wetlands

Data for wetlands species composition is needed for Florida Keys NMS.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Between 1999 and 2019, species richness surveys in Florida Keys NMS showed an average of 220.23 grazers and reef dependent species, with a maximum of 302 in 2001 and a minimum of 1 in 2019.

### Percent Cover

Between 1996 and 2021, data monitoring efforts in Florida Keys NMS showed no significant change in the percent cover of coral species.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Fort Clinch State Park Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Fort Clinch AP.

## Nutrients

Nutrient concentrations decreased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 2000 and 2024 based on an aggregate model of analyses results from 2 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1994 and 2024.

## Nekton

Data for nekton richness is needed for Fort Clinch AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Fort Clinch AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Fort Clinch AP.

### Percent Cover

Data for coral percent cover is needed for Fort Clinch AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Fort Pickens State Park Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 2016 and 2024 based on an aggregate model of Johnson’s seagrass, manatee grass, paddle grass, shoal grass, star grass, turtle grass, and widgeon grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1987 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1991 and 2024.

## Nekton

Data for nekton richness is needed for Fort Pickens AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Fort Pickens AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Fort Pickens AP.

### Percent Cover

Data for coral percent cover is needed for Fort Pickens AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Gasparilla Sound-Charlotte Harbor Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1998 and 2023 based on an aggregate model of manatee grass, shoal grass, turtle grass, widgeon grass, and attached algae analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1994 and 2025 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1971 and 2025.

## Nekton

Data for nekton richness is needed for Gasparilla Sound-Charlotte Harbor AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Gasparilla Sound-Charlotte Harbor AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Gasparilla Sound-Charlotte Harbor AP.

### Percent Cover

Data for coral percent cover is needed for Gasparilla Sound-Charlotte Harbor AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Guana River Marsh Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Guana River Marsh AP.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1995 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1995 and 2024.

## Nekton

Data for nekton richness is needed for Guana River Marsh AP.

## Coastal Wetlands

Between 2012 and 2023, species composition surveys showed an annual average of 1.05 species across all species groups, with a maximum of 3 in 2021 and a minimum of 1 in 2012.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Guana River Marsh AP.

### Percent Cover

Data for coral percent cover is needed for Guana River Marsh AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Guana River Marsh AP has shown a decrease between 2014 and 2022 for natural reefs.

### Percent Live

Between 2014 and 2022, data showed an increase in the proportion of live oysters within Guana River Marsh AP for natural reefs.

### Shell Height

Between 2014 and 2022, data showed an increase in the shell height of ≥75mm live oysters within Guana River Marsh AP for natural reefs.

# Guana Tolomato Matanzas National Estuarine Research Reserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Guana Tolomato Matanzas NERR.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1995 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1995 and 2024.

## Nekton

Data for nekton richness is needed for Guana Tolomato Matanzas NERR.

## Coastal Wetlands

Between 2012 and 2023, species composition surveys showed an annual average of 1.17 species across all species groups, with a maximum of 4 in 2017 and a minimum of 1 in 2013.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Guana Tolomato Matanzas NERR.

### Percent Cover

Data for coral percent cover is needed for Guana Tolomato Matanzas NERR.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Guana Tolomato Matanzas NERR has shown a decrease between 2014 and 2024 for natural reefs.

### Percent Live

Between 2014 and 2024, data showed a decrease in the proportion of live oysters within Guana Tolomato Matanzas NERR for natural reefs.

### Shell Height

Between 2014 and 2024, data showed an increase in the shell height of ≥75mm live oysters within Guana Tolomato Matanzas NERR for natural reefs.

# Indian River-Malabar to Vero Beach Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1994 and 2023 based on an aggregate model of Halophila spp., manatee grass, shoal grass, turtle grass, and widgeon grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1991 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1991 and 2024.

## Nekton

Data for nekton richness is needed for Indian River-Malabar to Vero Beach AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Indian River-Malabar to Vero Beach AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Indian River-Malabar to Vero Beach AP.

### Percent Cover

Data for coral percent cover is needed for Indian River-Malabar to Vero Beach AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Indian River-Malabar to Vero Beach AP has shown a decrease between 2017 and 2022 for natural reefs.

### Percent Live

Between 2017 and 2022, data showed a decrease in the proportion of live oysters within Indian River-Malabar to Vero Beach AP for natural reefs.

### Shell Height

Between 2017 and 2022, data showed an increase in the shell height of 25-75mm live oysters within Indian River-Malabar to Vero Beach AP for natural reefs.

# Indian River-Vero Beach to Ft. Pierce Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1994 and 2023 based on an aggregate model of Halophila spp., manatee grass, shoal grass, turtle grass, and widgeon grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1992 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1992 and 2024.

## Nekton

Data for nekton richness is needed for Indian River-Vero Beach to Ft. Pierce AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Indian River-Vero Beach to Ft. Pierce AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Indian River-Vero Beach to Ft. Pierce AP.

### Percent Cover

Data for coral percent cover is needed for Indian River-Vero Beach to Ft. Pierce AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Indian River-Vero Beach to Ft. Pierce AP has shown a decrease between 2016 and 2024 for natural reefs.

### Percent Live

Between 2016 and 2024, data showed a decrease in the proportion of live oysters within Indian River-Vero Beach to Ft. Pierce AP for natural reefs.

### Shell Height

Between 2016 and 2024, data showed a decrease in the shell height of ≥75mm live oysters within Indian River-Vero Beach to Ft. Pierce AP for natural reefs.

# Jensen Beach to Jupiter Inlet Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1994 and 2023 based on an aggregate model of Halophila spp., manatee grass, shoal grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1991 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, increased between 1972 and 2024.

## Nekton

Data for nekton richness is needed for Jensen Beach to Jupiter Inlet AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Jensen Beach to Jupiter Inlet AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Between 2008 and 2014, species richness surveys in Jensen Beach to Jupiter Inlet AP showed an average of 1.92 grazers and reef dependent species, with a maximum of 2 in 2008 and a minimum of 1 in 2014.

### Percent Cover

Data for coral percent cover is needed for Jensen Beach to Jupiter Inlet AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for Jensen Beach to Jupiter Inlet AP.

### Percent Live

Between 2016 and 2021, data showed a decrease in the proportion of live oysters within Jensen Beach to Jupiter Inlet AP for natural reefs.

### Shell Height

Data for shell height is needed for Jensen Beach to Jupiter Inlet AP.

# Lemon Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1998 and 2023 based on an aggregate model of manatee grass, shoal grass, turtle grass, and attached algae analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1995 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1971 and 2024.

## Nekton

Monitoring in 2001 showed 2.02 species across all species groups in Lemon Bay AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Lemon Bay AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Lemon Bay AP.

### Percent Cover

Data for coral percent cover is needed for Lemon Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Lemon Bay AP has shown a decrease between 2007 and 2023 for natural reefs.

### Percent Live

Between 2007 and 2023, data showed a decrease in the proportion of live oysters within Lemon Bay AP for natural reefs.

### Shell Height

Data for shell height is needed for Lemon Bay AP.

# Lignumvitae Key Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Lignumvitae Key AP.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 2001 and 2024 based on an aggregate model of analyses results from 1 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1997 and 2024.

## Nekton

Data for nekton richness is needed for Lignumvitae Key AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Lignumvitae Key AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Monitoring in 2013 showed 2 grazers and reef dependent species in Lignumvitae Key AP.

### Percent Cover

Data for coral percent cover is needed for Lignumvitae Key AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Loxahatchee River-Lake Worth Creek Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1999 and 2023 based on an aggregate model of Halophila spp., manatee grass, shoal grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1991 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1991 and 2024.

## Nekton

Data for nekton richness is needed for Loxahatchee River-Lake Worth Creek AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Loxahatchee River-Lake Worth Creek AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Monitoring in 2017 showed 2 grazers and reef dependent species in Loxahatchee River-Lake Worth Creek AP.

### Percent Cover

Data for coral percent cover is needed for Loxahatchee River-Lake Worth Creek AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for Loxahatchee River-Lake Worth Creek AP.

### Percent Live

Data for percent live is needed for Loxahatchee River-Lake Worth Creek AP.

### Shell Height

Data for shell height is needed for Loxahatchee River-Lake Worth Creek AP.

# Matlacha Pass Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 2000 and 2023 based on an aggregate model of shoal grass, star grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1994 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1989 and 2024.

## Nekton

Data for nekton richness is needed for Matlacha Pass AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Matlacha Pass AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Matlacha Pass AP.

### Percent Cover

Data for coral percent cover is needed for Matlacha Pass AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Mosquito Lagoon Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 2009 and 2023 based on an aggregate model of both Halophila spp. and shoal grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1991 and 2024 based on an aggregate model of analyses results from 4 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1991 and 2024.

## Nekton

Data for nekton richness is needed for Mosquito Lagoon AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Mosquito Lagoon AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Mosquito Lagoon AP.

### Percent Cover

Data for coral percent cover is needed for Mosquito Lagoon AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for Mosquito Lagoon AP.

### Percent Live

Data for percent live is needed for Mosquito Lagoon AP.

### Shell Height

Data for shell height is needed for Mosquito Lagoon AP.

# Nassau River-St. Johns River Marshes Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Nassau River-St. Johns River Marshes AP.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1982 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1982 and 2024.

## Nekton

Data for nekton richness is needed for Nassau River-St. Johns River Marshes AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Nassau River-St. Johns River Marshes AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Nassau River-St. Johns River Marshes AP.

### Percent Cover

Data for coral percent cover is needed for Nassau River-St. Johns River Marshes AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for Nassau River-St. Johns River Marshes AP.

### Percent Live

Data for percent live is needed for Nassau River-St. Johns River Marshes AP.

### Shell Height

Data for shell height is needed for Nassau River-St. Johns River Marshes AP.

# North Fork St. Lucie Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for North Fork St. Lucie AP.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1996 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1989 and 2024.

## Nekton

Data for nekton richness is needed for North Fork St. Lucie AP.

## Coastal Wetlands

Data for wetlands species composition is needed for North Fork St. Lucie AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for North Fork St. Lucie AP.

### Percent Cover

Data for coral percent cover is needed for North Fork St. Lucie AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Pellicer Creek Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Pellicer Creek AP.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 2002 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 2002 and 2024.

## Nekton

Data for nekton richness is needed for Pellicer Creek AP.

## Coastal Wetlands

Between 2012 and 2023, species composition surveys showed an annual average of 1.22 species across all species groups, with a maximum of 4 in 2018 and a minimum of 1 in 2020.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Pellicer Creek AP.

### Percent Cover

Data for coral percent cover is needed for Pellicer Creek AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Pine Island Sound Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1998 and 2023 based on an aggregate model of manatee grass, shoal grass, turtle grass, and attached algae analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1987 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1985 and 2024.

## Nekton

Data for nekton richness is needed for Pine Island Sound AP.

## Coastal Wetlands

Monitoring in 2004 showed 2 species across all species groups in Pine Island Sound AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Pine Island Sound AP.

### Percent Cover

Data for coral percent cover is needed for Pine Island Sound AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Pine Island Sound AP has shown a decrease between 2015 and 2023 for natural reefs.

### Percent Live

Between 2019 and 2023, data showed an increase in the proportion of live oysters within Pine Island Sound AP for natural reefs.

### Shell Height

Between 2016 and 2023, data showed an increase in the shell height of ≥75mm live oysters within Pine Island Sound AP for natural reefs.

# Pinellas County Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1998 and 2024 based on an aggregate model of manatee grass, shoal grass, turtle grass, widgeon grass, attached algae, and unidentified Halophila analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1994 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1974 and 2024.

## Nekton

Between 1989 and 2022 annual average nekton richness per 100 square meters across all survey gear types was 0.35 species, with a maximum of 4.86 species per 100 square meters in 2022 and a minimum of 0.02 species per 100 square meters in 2005.

## Coastal Wetlands

Monitoring in 2014 showed 11 species across all species groups in Pinellas County AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Pinellas County AP.

### Percent Cover

Data for coral percent cover is needed for Pinellas County AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for Pinellas County AP.

### Percent Live

Data for percent live is needed for Pinellas County AP.

### Shell Height

Data for shell height is needed for Pinellas County AP.

# Rocky Bayou State Park Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Rocky Bayou AP.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1995 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, increased between 1994 and 2024.

## Nekton

Data for nekton richness is needed for Rocky Bayou AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Rocky Bayou AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Rocky Bayou AP.

### Percent Cover

Data for coral percent cover is needed for Rocky Bayou AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Rookery Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1998 and 2005 based on an aggregate model of manatee grass, paddle grass, shoal grass, star grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1989 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1989 and 2024.

## Nekton

Between 2000 and 2009 annual trawl surveys showed average nekton richness per 100 square meters was 0.48 species, with a maximum of 2.16 species per 100 square meters in 2000 and a minimum of 0.13 species per 100 square meters in 2004.

## Coastal Wetlands

Data for wetlands species composition is needed for Rookery Bay AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Rookery Bay AP.

### Percent Cover

Data for coral percent cover is needed for Rookery Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Rookery Bay National Estuarine Research Reserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1998 and 2005 based on an aggregate model of manatee grass, paddle grass, shoal grass, star grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1989 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1989 and 2024.

## Nekton

Between 1999 and 2020 annual trawl surveys showed average nekton richness per 100 square meters was 0.63 species, with a maximum of 3.24 species per 100 square meters in 2010 and a minimum of 0.13 species per 100 square meters in 2015.

## Coastal Wetlands

Data for wetlands species composition is needed for Rookery Bay NERR.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Rookery Bay NERR.

### Percent Cover

Data for coral percent cover is needed for Rookery Bay NERR.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# St. Andrews Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 2000 and 2023 based on an aggregate model of manatee grass, shoal grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1990 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1996 and 2024.

## Nekton

Data for nekton richness is needed for St. Andrews AP.

## Coastal Wetlands

Data for wetlands species composition is needed for St. Andrews AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for St. Andrews AP.

### Percent Cover

Data for coral percent cover is needed for St. Andrews AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# St. Joseph Bay Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 2005 and 2023 based on an aggregate model of manatee grass, shoal grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1991 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1991 and 2024.

## Nekton

Data for nekton richness is needed for St. Joseph Bay AP.

## Coastal Wetlands

Data for wetlands species composition is needed for St. Joseph Bay AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for St. Joseph Bay AP.

### Percent Cover

Data for coral percent cover is needed for St. Joseph Bay AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# St. Joseph Bay State Buffer Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for St. Joseph Buffer.  
## Water Quality

## Nekton

Data for nekton richness is needed for St. Joseph Buffer.

## Coastal Wetlands

Data for wetlands species composition is needed for St. Joseph Buffer.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for St. Joseph Buffer.

### Percent Cover

Data for coral percent cover is needed for St. Joseph Buffer.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# St. Martins Marsh Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1997 and 2024 based on an aggregate model of manatee grass, shoal grass, star grass, turtle grass, and widgeon grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity increased between 1991 and 2024 based on an aggregate model of analyses results from 6 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, decreased between 1991 and 2024.

## Nekton

Monitoring in 2003 showed 1.21 species across all species groups in St. Martins Marsh AP.

## Coastal Wetlands

Data for wetlands species composition is needed for St. Martins Marsh AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for St. Martins Marsh AP.

### Percent Cover

Data for coral percent cover is needed for St. Martins Marsh AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for St. Martins Marsh AP.

### Percent Live

Data for percent live is needed for St. Martins Marsh AP.

### Shell Height

Data for shell height is needed for St. Martins Marsh AP.

# Terra Ceia Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover showed no significant trend between 1999 and 2023 based on an aggregate model of manatee grass, shoal grass, and turtle grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1995 and 2024 based on an aggregate model of analyses results from 4 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1989 and 2024.

## Nekton

Between 1989 and 2022 annual average nekton richness per 100 square meters across all survey gear types was 0.4 species, with a maximum of 3.88 species per 100 square meters in 2022 and a minimum of 0.02 species per 100 square meters in 2004.

## Coastal Wetlands

Data for wetlands species composition is needed for Terra Ceia AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Terra Ceia AP.

### Percent Cover

Data for coral percent cover is needed for Terra Ceia AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Insufficient data was available to estimate a size trend for live oysters.

# Tomoka Marsh Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Tomoka Marsh AP.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1997 and 2024 based on an aggregate model of analyses results from 3 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1997 and 2024.

## Nekton

Data for nekton richness is needed for Tomoka Marsh AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Tomoka Marsh AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Tomoka Marsh AP.

### Percent Cover

Data for coral percent cover is needed for Tomoka Marsh AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Data for density is needed for Tomoka Marsh AP.

### Percent Live

Data for percent live is needed for Tomoka Marsh AP.

### Shell Height

Data for shell height is needed for Tomoka Marsh AP.

# Yellow River Marsh Aquatic Preserve

## Submerged Aquatic Vegetation

Data for SAV percent cover is needed for Yellow River Marsh AP.

## Nutrients

Nutrient concentrations increased based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity showed no detectable trend between 1995 and 2024 based on an aggregate model of analyses results from 4 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1977 and 2024.

## Nekton

Data for nekton richness is needed for Yellow River Marsh AP.

## Coastal Wetlands

Data for wetlands species composition is needed for Yellow River Marsh AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Yellow River Marsh AP.

### Percent Cover

Data for coral percent cover is needed for Yellow River Marsh AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Live oyster density within Yellow River Marsh AP has shown an increase between 2017 and 2023 for restored reefs.

### Percent Live

Between 2017 and 2023, data showed an increase in the proportion of live oysters within Yellow River Marsh AP for restored reefs.

### Shell Height

Between 2017 and 2023, data showed an increase in the shell height of 25-75mm live oysters within Yellow River Marsh AP for restored reefs.

# Nature Coast Aquatic Preserve

## Submerged Aquatic Vegetation

SAV percent cover decreased between 1997 and 2024 based on an aggregate model of manatee grass, shoal grass, star grass, turtle grass, and widgeon grass analyses results.

## Nutrients

Nutrient concentrations showed no detectable trend based on an aggregate model of total nitrogen and total phosphorus analyses results.

## Water Clarity

Water clarity decreased between 1991 and 2024 based on an aggregate model of analyses results from 5 parameters.  
## Water Quality  
Dissolved oxygen, a standard measure for water quality due to its correlation with temperature and salinity, showed no detectable trend between 1982 and 2024.

## Nekton

Monitoring in 2003 showed 0.88 species across all species groups in Nature Coast AP.

## Coastal Wetlands

Monitoring in 2020 showed 5 species across all species groups in Nature Coast AP.

## Coral/Coral Reef

### Grazers and Reef Dependent Species

Data for coral richness is needed for Nature Coast AP.

### Percent Cover

Data for coral percent cover is needed for Nature Coast AP.

### Community Composition

To Be Determined

## Oyster/Oyster Reef

### Density

Insufficient data was available to assess long-term trends for density.

### Percent Live

Insufficient data was available to assess long-term trends for percent live.

### Shell Height

Data for shell height is needed for Nature Coast AP.