

# Data Acquisition Standard Operating Procedures

## Sarasota County Comprehensive Oyster Monitoring Program (ID# 972)

Last Updated: 5/6/2023

### Program Summary

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The Sarasota County Oyster Monitoring Program was designed to examine the role of *Crassostrea virginica* (Eastern Oyster) as an environmental indicator of watershed health. In the fall of 2003, Sarasota County began monitoring *C. virginica* in the Dona and Roberts Bay (DARB) watershed to determine the impacts of freshwater flows from Cow Pen Slough and the Myakka River/Blackburn Canal. Sites were chosen in Shakett and Curry Creeks, and Lyons, Dona, and Roberts Bays. In addition to the oyster data, rainfall, salinity, and discharge flow data, where available, were collected and used in the analyses. Staff was able to establish a link between declines in the percentage of live oysters and increased freshwater input in those sites receiving high freshwater in-flows. In the fall of 2006, the program was expanded to include sites in other coastal watersheds: Sarasota Bay Watershed (Hudson Bayou and Phillippi Creek); Little Sarasota Bay Watershed (Matheny, North, Catfish, and South Creeks); and Lemon Bay Watershed (Alligator, Forked, Gottfried, and Ainger Creeks). The expanded monitoring program provides comprehensive data for the entire county that can be used to track watershed health, evaluate the success of watershed management projects, and track the overall success of the county's comprehensive watershed management practices.

### URLs

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- Program - <http://www.sarasota.wateratlas.usf.edu/oysters/?section=Oyster%20Monitoring%20Program>
- DDI - <https://data.florida-seacar.org/programs/details/972>

### Contacts

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| Contact Name  | Organization | Email            | Phone         |
|---------------|--------------|------------------|---------------|
| Michael Jones |              | mjones@scgov.net | 941- 650-9926 |

### Data Tables

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- Data\_972A\_Final
- Data\_972A\_Load

### Data Stored Procedures

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- usp\_Data\_972A\_Load\_insert
- usp\_combined\_oyster\_insert\_972A

# Data Acquisition Standard Operating Procedures: ProgramID 972

Date Created: 10/17/2018

Created By: *Claude Kershaw*

## Data File Path:

1. "U:\Misc\_Projects\SEACAR\_FDEP\Data\ID\_0972\_SarOysterMonitoring\Incoming\2021\05\Main data Book\_ID972.xlsx"

## Contact Information:

Contact Name: Michael Jones

Contact Organization: Program - Sarasota County Comprehensive Oyster Monitoring Program

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## Procedure Overview:

1. In the file "Main data Book\_ID972.xlsx", calculate Percent Live in Column H(Percent Live). Calculation:  $(\text{No Live}/\text{No Live} + \text{No Dead}) * 100$
2. Use SQL Server Import Export Wizard to load file "Main data Book\_ID972.xlsx" sheet "DataLoad" into table **Data\_972A\_load**. (Truncated prev file data since this file had all the data)
3. Execute procedure usp\_Data\_972A\_Load\_insert to load the data into table **Data\_972A\_Final**.
4. A GIS process is used to add Monitoring Locations from the spatial data files in "P:\Misc Projects\SEACAR\_FDEP\Data\ID\_0972\_SarOysterMonitoring\" to the **SampleLocation\_Point** table.
5. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
6. Update the **SampleLocation\_Point** table with the LocationID generated in the **SampleLocation** table. Run procedure usp\_SampleLocation\_Point\_update to do this.
7. Update the LocationID column in table **Data\_972A\_Final** with the LocationID in the **SampleLocation** table. Join on the [ID] column in **Data\_972A\_Final** and the ProgramLocationID column in **SampleLocation**.

## Files:

1. "U:\Misc\_Projects\SEACAR\_FDEP\Data\ID\_0972\_SarOysterMonitoring\Incoming\2021\05\Main data Book\_ID972.xlsx"

## Data Tables

1. Data\_972A\_Load
2. Data\_972A\_Final

## Data Stored Procedures

1. usp\_Data\_972A\_Load\_insert
2. usp\_SampleLocation\_Point\_update

## GIS Procedures

1. The Monitoring Location information is found in the directory "P:\Misc Projects\SEACAR\_FDEP\Data\ID\_0972\_SarOysterMonitoring" as spatial data files provided by the Program.
2. Complete steps 3 through 6 in the "Procedure Overview" section of this document.

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_oyster_insert_972A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '972A';
DECLARE @combinedTable varchar(50) = 'Combined_OYSTER'
DECLARE @parameterID int

-- Setup data load
DECLARE @runBy varchar(50) = SYSTEM_USER;
DECLARE @programID int, @dataStreamID int;

SELECT @dataStreamID = DataStreamID,
@programID = ProgramID
FROM DataStreamProcedure
WHERE DataLoadCode = @dataLoadCode;

-- Delete existing data
exec usp_delete_combined @dataStreamID, @combinedTable

/*Number of Oysters Counted - Total*/

SET @parameterID = 38

-- Insert data
INSERT INTO Combined_OYSTER (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
SurveyMethod, PercentLiveMethod, HabitatClassification, MinimumSizeMeasured_mm, NumberMeasured_n,
QuadSize_m2, ResultValue, QuadIdentifier, ReefIdentifier, LiveDate, LiveDate_Qualifier,
LiveDate_MinEstDate, LiveDate_MaxEstDate, SampleAge_Stdev, UniversalReefID, DateAdded)
SELECT @programID, @dataStreamID, @parameterID, a.LocationID, CAST(a.Date as datetime), 'Random
Quadrat', 'Percent', 'Natural', NULL, 5, '0.0625', CAST(a.Total as decimal(25,8)), a.Quad, a.ID,
CAST(a.Date as datetime2), 'Exact (for live specimens only)', NULL, NULL, NULL, NULL, GETDATE()
FROM Data_972A_Final a
WHERE a.Total IS NOT NULL
AND a.LocationID IS NOT NULL
ÿ
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

/*Number of Oysters Counted - Live*/

SET @parameterID = 39

-- Insert data
INSERT INTO Combined_OYSTER (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
SurveyMethod, PercentLiveMethod, HabitatClassification, MinimumSizeMeasured_mm, NumberMeasured_n,
QuadSize_m2, ResultValue, QuadIdentifier, ReefIdentifier, LiveDate, LiveDate_Qualifier,
LiveDate_MinEstDate, LiveDate_MaxEstDate, SampleAge_Stdev, UniversalReefID, DateAdded)
SELECT @programID, @dataStreamID, @parameterID, a.LocationID, CAST(a.Date as datetime), 'Random
Quadrat', 'Percent', 'Natural', NULL, 5, '0.0625', CAST(a.[No# Live] as decimal(25,8)), a.Quad, a.
CAST(a.Date as datetime2), 'Exact (for live specimens only)', NULL, NULL, NULL, NULL, GETDATE()
FROM Data_972A_Final a
WHERE a.[No# Live] IS NOT NULL
AND a.LocationID IS NOT NULL
ÿ
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

```

```
/*Number of Oysters Counted - Dead*/
```

```
SET @parameterID = 40
```

```
-- Insert data
```

```
INSERT INTO Combined_OYSTER (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate, SurveyMethod, PercentLiveMethod, HabitatClassification, MinimumSizeMeasured_mm, NumberMeasured_n, QuadSize_m2, ResultValue, QuadIdentifier, ReefIdentifier, LiveDate, LiveDate_Qualifier, LiveDate_MinEstDate, LiveDate_MaxEstDate, SampleAge_Stdev, UniversalReefID, DateAdded) SELECT@programID, @dataStreamID, @parameterID, a.LocationID, CAST(a.Date as datetime), 'Random Quadrat', 'Percent', 'Natural', NULL, 5, '0.0625', CAST(a.[No# Dead] as decimal(25,8)), a.Quad, a.ID, CAST(a.Date as datetime2), 'Exact (for live specimens only)', NULL, NULL, NULL, NULL, GETDATE() FROMData_972A_Final a WHEREa.[No# Dead] IS NOT NULL ANDa.LocationID IS NOT NULL
```

```
ÿ  
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID, @dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT, @LastUpdateBy = @runBy
```

```
/*Percent Live*/
```

```
SET @parameterID = 27
```

```
-- Insert data
```

```
INSERT INTO Combined_OYSTER (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate, SurveyMethod, PercentLiveMethod, HabitatClassification, MinimumSizeMeasured_mm, NumberMeasured_n, QuadSize_m2, ResultValue, QuadIdentifier, ReefIdentifier, LiveDate, LiveDate_Qualifier, LiveDate_MinEstDate, LiveDate_MaxEstDate, SampleAge_Stdev, UniversalReefID, DateAdded) SELECT@programID, @dataStreamID, @parameterID, a.LocationID, CAST(a.Date as datetime), 'Random Quadrat', 'Percent', 'Natural', NULL, 5, '0.0625', CAST(a.[% Live] as decimal(25,8)), a.Quad, a.ID, CAST(a.Date as datetime2), 'Exact (for live specimens only)', NULL, NULL, NULL, NULL, GETDATE() FROMData_972A_Final a WHEREa.[% Live] IS NOT NULL ANDa.LocationID IS NOT NULL
```

```
ÿ  
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID, @dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT, @LastUpdateBy = @runBy
```

```
/*Density*/
```

```
SET @parameterID = 26
```

```
-- Insert data
```

```
INSERT INTO Combined_OYSTER (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate, SurveyMethod, PercentLiveMethod, HabitatClassification, MinimumSizeMeasured_mm, NumberMeasured_n, QuadSize_m2, ResultValue, QuadIdentifier, ReefIdentifier, LiveDate, LiveDate_Qualifier, LiveDate_MinEstDate, LiveDate_MaxEstDate, SampleAge_Stdev, UniversalReefID, DateAdded) SELECT@programID, @dataStreamID, @parameterID, a.LocationID, CAST(a.Date as datetime), 'Random Quadrat', 'Percent', 'Natural', NULL, 5, '0.0625', CAST((CAST(a.[No# Live] as int)/0.0625) as decimal(25,8)), a.Quad, a.ID, CAST(a.Date as datetime2), 'Exact (for live specimens only)', NULL, NULL, NULL, NULL, GETDATE() FROMData_972A_Final a WHEREISNUMERIC(a.[No# Live]+'e0') = 1 ANDa.LocationID IS NOT NULL
```

```
ÿ  
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID, @dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT, @LastUpdateBy = @runBy
```

```
/*
```

```
SELECT *
```

```
FROM Combined_OYSTER  
where DatastreamID =12
```

```
SELECT ProgramID, b.IndicatorName, c.ParameterName, a.NumRowsCombined  
FROM Combined_Data_Tracking a  
INNER JOIN Indicator b on a.IndicatorID = b.IndicatorID  
INNER JOIN Combined_Parameters c on a.ParameterID = c.ParameterID  
WHERE b.Habitat = 'Oyster/Oyster Reef'
```

```
SELECT *  
FROM DATA_972A_Final
```

```
SELECT *  
FROM Combined_Parameters a  
INNER JOIN Indicator b on a.IndicatorID = b.IndicatorID  
where b.Habitat = 'oyster/oyster reef'
```

```
SELECT *  
FROM DataStreamProcedure  
WHERE ProgramID = 972
```

```
exec usp_delete_combined 12, 'Combined_OYSTER'  
*/
```

```
END
```

```
GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_Data_972A_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON
```

```
DELETE FROM Data_972A_Load WHERE ID is NULL
```

```
UPDATE Data_972A_Load
SET Total = CAST([No# Live] as int) + CAST([No# Dead] as int)
WHERE Total IS NULL
```

```
INSERT INTO data_972A_Final (ID, Date, Year, Season, Quad, [No# Live], [No# Dead], Total, [% Live])
SELECT a.ID, a.Date, a.Year, a.Season, a.Quad, a.[No# Live], a.[No# Dead], a.Total, a.[% Live]
FROM Data_972A_Load a
WHERE NOT EXISTS ( SELECT *
                   FROM Data_972A_Final b
                   WHERE a.ID = b.ID
                   AND a.Date = b.Date
                   AND a.Total = b.Total
                   AND a.Quad = b.Quad
                 )
```

```
END
```

```
GO
```