Data Acquisition Standard Operating Procedures

Prehistoric baseline reveals substantial decline of oyster reef condition in a Gulf of Mexico conservation priority area - modern oyster data (ID# 5070)

Last Updated: 5/6/2023

Program Summary

The Gulf of Mexico (GoM) is home to the world's largest remaining wild oyster fisheries, but baseline surveys needed to assess habitat condition are recent and may represent an already-shifted reference state. Here, we use prehistoric oysters from archaeological middens to show that oyster size, an indicator of habitat function and population resilience, declined prior to the earliest assessments of reef condition in an area of the GoM previously considered pristine. Stable isotope sclerochronlogy reveals extirpation of colossal oysters occurred through truncated life history and slowed growth. More broadly, our study suggests that management strategies affected by shifting baselines may overestimate resilience and perpetuate practices that risk irreversible decline.

URLs

- Program - https://doi.org/10.5061/dryad.66t1g1jz4
- DDI - https://data.florida-seacar.org/programs/details/5070

Contacts

Contact Name	Organization	Email	Phone
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Data Tables

- Data_5070A_Final
- Data_5070A_Load

Data Stored Procedures

- usp_Data_5070A_Load_insert
- usp_combined_oyster_insert_5070A

Data Acquisition Standard Operating Procedures: ProgramID *5070*

Date Created: *05/26/2020*

Created By: *Mrudhula Murali*

Data File Paths:

1. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\ Data\ID_5070\DataToLoad\ Hesterberg_etal_2020_SECAR.xlsx"
2. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\ Data\ID_5070\DataToLoad \ Stations.xlsx"

DDI URL: http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/5070

Contact Information:

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Contact Organization: Prehistoric baseline reveals substantial decline of oyster reef condition in a Gulf of Mexico conservation priority area - modern oyster data

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Procedure Overview:

1. Use SQL Server Import Export Wizard to load the file “Stations.xlsx “ into table **Locations_5070A.**
2. Use SQL Server Import Export Wizard to load the file “Hesterberg_etal_2020_SECAR.xlsx” into table **Data_5070A_Load.**
3. Execute procedures usp_Data_5062*_Load_insert to load the data into **Data_5062*_Final** tables.
4. Add new Monitoring Locations from table **Locations_5070A** with [id as Monitoring_Location] into 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_5070A_Final** with the LocationID in the **SampleLocation** table. Join on the [a.Location + ' Reef ' + cast(a.[Site #] as nvarchar)] value in **Data_5070A_Final** and the ProgramLocationID column in **SampleLocation.**

Data Tables

1. Data_5070*_Load
2. Data_5070*_Final

Data Stored Procedures

1. usp_Data_5070*_Load_insert
2. usp_SampleLocation_Point_update

GIS Procedures

1. Complete steps 3 through 7 in the “Procedure Overview” section of this document.
2. The location information is available in **Locations_5070A** table.

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_oyster_insert_5070A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Delete existing data
exec usp_delete_combined 1320, 'Combined_OYSTER'

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '5070A';
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
FROMDataStreamProcedure
WHEREDataLoadCode = @dataLoadCode;
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-- Insert data
SET @parameterID = 28 -- Shell Height

INSERT INTO Combined_OYSTER (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
SurveyMethod, PercentLiveMethod, HabitatClassification, MinimumSizeMeasured_mm, NumberMeasured_n,
QuadSize_m2, ResultValue, DateAdded, QAQCFlag, QuadIdentifier, ReefIdentifier, LiveDate,
LiveDate_Qualifier, LiveDate_MinEstDate, LiveDate_MaxEstDate)
SELECT@programID, @dataStreamID, @parameterID, a.LocationID, b.DateSampled, 'Random Quadrat',
NULL, 'Natural', 35, 'ALL', 0.25, a.[Shell height (mm)], GETDATE(), NULL, a.Location+'-'+CAST(a.[S
#] as varchar)+'-'+a.Elevation, a.Location+'-'+CAST(a.[Site #] as varchar),
b.DateSampled,'Exact','NA','NA'
FROMData_5070A_Final a
INNER JOIN  Locations_5070A b on a.Location = b.Location and a.[Site #] = b.[Site #]
WHEREa.[Shell height (mm)] IS NOT NULL
ANDa.LocationID IS NOT NULL

exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy
ÿ
/*
SELECT *
FROM Combined_OYSTER

SELECT Distinct 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_5070A_Final
SELECT *
FROM Locations_5070A

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 = 5070

exec usp_delete_combined 1320, 'Combined_OYSTER'
*/
END


GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC usp_Data_5070A_Load_insert
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

INSERT INTO [dbo].[Data_5070A_Final]
   ([Location],[Site #],[Elevation],[Shell Height (mm)])
   SELECT [Location],[Site #],[Elevation],[Shell Height (mm)]
     FROM [dbo].[Data_5070A_Load]

END
GO
```