

Data Acquisition Standard Operating Procedures

Rookery Bay Reserve Habitat Maps (ID# 4045)

Last Updated: 5/6/2023

Program Summary

The Reserve's upland habitats were mapped according to the Comprehensive Everglades Restoration Plan (CERP) classification scheme using 2010 aerial imagery, LiDAR and extensive field data collection. Updated in 2020 to include crosswalks to CLC, FNAI and other land cover classification schemes. The benthic habitats were mapped according to the Florida Land Use, Cover and Forms Classification System (FLUCCS) using 2014 aerial imagery.

URLs

- Program - <https://rookerybay.org/learn/research.html>
- DDI - <https://data.florida-seacar.org/programs/details/4045>

Contacts

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Data Tables

Data Stored Procedures

- usp_combined_acreage_insert_4045I
- usp_combined_cw_insert_4045A
- usp_combined_oyster_insert_4045

Data Acquisition Standard Operating Procedures: ProgramID 4045

Date Created: 10/17/2018

Created By: Rich Hammond and Claude Kershaw

Data File Path: "\\forest.usf.edu\data\PDive\CAS-WI\Misc
Projects\SEACAR_FDEP\Data\ID_4045_Rookery\"

DDI URL: <http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/4045>

Procedure Overview:

1. The Indicator Data for this DataStream is in Spatial format to begin with.
2. The 'Upland_CERP_with_descriptions' shapefile was loaded into the enterprise geodatabase as the feature class 'GIS_4045A' via ArcCatalog.
The 'benthic_habitats_dissolve' shapefile was loaded into the enterprise geodatabase as the feature class 'GIS_4045B' via ArcCatalog.
3. Please see additional info below in the GIS Appendix.

Data Tables

1. GIS_4045A
2. GIS_4045B

Data Stored Procedures

1. None

GIS Appendix:

- Upland habitats 2010 data
 - New GIS file RBNERR_CERP_CLC_NERR_2020_SEACAR
 - Join to REF_LandCover_Include using CLC_NAME_1 =LC_Name (and select the habitats)
 - Added sourceid, uniqueid, hectares, SampleDate=1/1/2010
 - Intersected with MA_CHIMMP
 - Includes Coastal Wetlands
 - SampleDate=1/1/2010 (based on year of data)

GIS_4045_Wetlands_2010, GIS_4045_Wetlands_2010_Intersect. Current data load

PD_NERR_C O	PD_NERR_La	Name	LandCoverI D	LC_Name
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Black Rush	199	Salt Marsh
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Graminoid Salt Marsh	199	Salt Marsh
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Mangrove Scrub- Graminoid	208	Scrub Mangrove
2254	Estuarine, Intertidal Haline, Unconsolidated Shore, Mud	Barren Salt Flat	198	Salt Flat

2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Black Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Black Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Buttonwood Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Buttonwood Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mixed Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mixed Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Red Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Red Mangrove Shrubland	208	Scrub Mangrove
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Black Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Black Mangrove Woodland	199	Salt Marsh
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Buttonwood Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Buttonwood Woodland	199	Salt Marsh
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mangrove Woodland	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mixed Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mixed Mangrove Woodland	199	Salt Marsh
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Red Mangrove Forest	130	Mangrove Swamp

- Upland habitats 1940 data
 - New GIS file RBNERR_CERP_FNAI_NERR_1940_SEACAR
 - Join to REF_LandCover_Include using using CLC_NAME_1 =LC_Name (and select the habitats)
 - Added sourceid, uniqueid, hectares, SampleDate=1/1/1940
 - Intersected with MA_CHIMMP
 - Includes Coastal Wetlands
 - GIS_4045_CW1940, GIS_4045_CW1940_Intersect . SampleDate=1/1/1940 (based on year of data)

NERR_CODE	NERR_Label	Name	LandCoverID	LC_Name
0		Mixed Mangrove Woodland	130	Mangrove Swamp
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Black Mangrove Scrub	208	Scrub Mangrove
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Black Mangrove Woodland	199	Salt Marsh
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Black Rush	199	Salt Marsh

2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Buttonwood Scrub	208	Scrub Mangrove
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Buttonwood Woodland	199	Salt Marsh
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Graminoid Salt Marsh	199	Salt Marsh
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Mangrove Scrub-Graminoid	208	Scrub Mangrove
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Mixed Mangrove Scrub	208	Scrub Mangrove
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Mixed Mangrove Woodland	199	Salt Marsh
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	Red Mangrove Scrub	208	Scrub Mangrove
2251	Estuarine, Intertidal Fresh, Emergent Wetland, Persistent	White Mangrove Scrub	208	Scrub Mangrove
2254	Estuarine, Intertidal Haline, Unconsolidated Shore, Mud	Barren Salt Flat	198	Salt Flat
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Black Mangrove Scrub	208	Scrub Mangrove
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Black Mangrove Woodland	199	Salt Marsh
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Buttonwood Scrub	208	Scrub Mangrove
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Buttonwood Woodland	130	Mangrove Swamp
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Mixed Mangrove Scrub	208	Scrub Mangrove
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Mixed Mangrove Woodland	199	Salt Marsh
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Red Mangrove Scrub	208	Scrub Mangrove
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	Succulent Salt Marsh	199	Salt Marsh
2261	Estuarine, Intertidal Haline, Emergent Wetland, Persistent	White Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Black Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Black Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Black Mangrove Woodland	130	Mangrove Swamp
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Buttonwood Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Buttonwood Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Buttonwood Woodland	130	Mangrove Swamp
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mixed Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mixed Mangrove Shrubland	130	Mangrove Swamp
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mixed Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Mixed Mangrove Woodland	130	Mangrove Swamp
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Red Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	Red Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	White Mangrove Scrub	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	White Mangrove Shrubland	208	Scrub Mangrove
2273	Estuarine, Intertidal Haline, Scrub-Shrub Wetland, BLE	White Mangrove Woodland	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Black Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Black Mangrove Woodland	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Buttonwood Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Buttonwood Woodland	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Buttonwood Woodland	199	Salt Marsh
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mangrove Woodland	130	Mangrove Swamp

2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mixed Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mixed Mangrove Woodland	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Mixed Mangrove Woodland	199	Salt Marsh
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	Red Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	White Mangrove Forest	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	White Mangrove Woodland	130	Mangrove Swamp
2283	Estuarine, Intertidal Haline, Forested Wetland, BLE	White Mangrove Woodland	199	Salt Marsh

Combine 1940 and 2010 data into a single layer and intersect table.

- Append GIS_4045_Wetlands_1940 to GIS_4045_Wetlands (copy of 2010 data)
- Intersect with Intersected with ORCP_MA_CHIMMP_Wetlands: GIS_4045_Wetlands_Intersect1
- Dissolve to remove duplicates: GIS_4045_Wetlands_Intersect
- Calculate fields: UniqueID (using Arcade code: Concatenate("GIS_4045_Wetlands-" + \$feature.OBJECTID_1)). Hectares = !Shape_Area! * 0.0001

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_acreage_insert_4045I]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '4045I';
DECLARE @combinedTable varchar(50) = 'Combined_Acreage'
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;
ÿ
/*****(there are 2 4045I data load codes)*****/
SET @dataStreamID = 1293

-- Delete Existing Data
exec usp_delete_combined @dataStreamID, @combinedTable
ÿ
-- Insert oyster data
SET @parameterID = 37 --Hectares
ÿ
-- Insert data
INSERT INTO Combined_Acreage (ProgramID, DataStreamID, ParameterID, LandCoverID, AreaID, GISSource,
SampleDate, [Year], SourceDate, ResultValue, MADup)
SELECT @programID, @dataStreamID, @parameterID, a.REF_LandCover_Include_LandCover, a.MA_AreaID,
a.SourceID, a.SampleDate, YEAR(a.SampleDate), NULL, a.Hectares, NULL
FROM GIS_4045_OYSV_INTERSECTa
WHERE a.MA_AreaID <> 9999
AND a.MA_AreaID <> 0
AND a.REF_LandCover_Include_Oyster_YN = 'Y'
ÿ
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

-- Insert sav data
SET @parameterID = 25 --Hectares
ÿ
-- Insert data
INSERT INTO Combined_Acreage (ProgramID, DataStreamID, ParameterID, LandCoverID, AreaID, GISSource,
SampleDate, [Year], SourceDate, ResultValue, MADup)
SELECT @programID, @dataStreamID, @parameterID, a.REF_LandCover_Include_LandCover, a.MA_AreaID,
a.SourceID, a.SampleDate, YEAR(a.SampleDate), NULL, a.Hectares, NULL
FROM GIS_4045_OYSV_INTERSECTa
WHERE a.MA_AreaID <> 9999
AND a.MA_AreaID <> 0
AND a.REF_LandCover_Include_SAV_YN = 'Y'
ÿ
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

-- Insert cw data

```

```
SET @parameterID = 48 --Hectares
```

```
ÿ
```

```
-- Insert data
```

```
INSERT INTO Combined_Acreage (ProgramID, DataStreamID, ParameterID, LandCoverID, AreaID, GISSourceID, SampleDate, [Year], SourceDate, ResultValue, MADup, CHIMMP)
```

```
SELECT@programID, @dataStreamID, @parameterID, a.LandCoverID, a.MA_AreaIDBuff, a.SourceID, a.SampleDate, YEAR(a.SampleDate), NULL, a.Hectares, NULL, a.CHIMMP_Regi on
```

```
FROMGIS_4045_CW_INTERSECTa
```

```
WHEREa.MA_AreaIDBuff <> 9999
```

```
ANDa.MA_AreaIDBuff <> 0
```

```
ANDa.CoastalWetland_YN = 'Y'
```

```
ÿ
```

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

```
/*
```

```
SELECT *
```

```
FROM Combined_SAV
```

```
SELECT Distinct ProgramID, a.DataStreamID, b.IndicatorName, c.ParameterName, 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 = 'Submerged Aquatic Vegetation'
```

```
ÿ
```

```
SELECT *
```

```
FROM GIS_4045_OYSV_INTERSECT
```

```
SELECT *
```

```
FROM GIS_4045_CW_INTERSECT
```

```
SELECT *
```

```
FROM Combined_Parameters a
```

```
INNER JOIN Indicator b on a.IndicatorID = b.IndicatorID
```

```
where b.Habitat = 'Submerged Aquatic Vegetation'
```

```
SELECT *
```

```
FROM DataStreamProcedure
```

```
WHERE ProgramID = 4045
```

```
SELECT *
```

```
FROM ref_species
```

```
where habitat = 'Submerged Aquatic Vegetation'
```

```
and scientificname like '%calcer%'
```

```
*/
```

```
END
```

```
GO
```

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_cw_insert_4045A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- UPDATE Hecaters column
/*
UPDATE GIS_4045_INTERSECT
SET Hectares = Shape_Area*0.0001
*/

-- Constants - PLEASE SET NOW!!

DECLARE @dataLoadCode varchar(10) = '4045I';
DECLARE @combinedTable varchar(50) = 'Combined_CW'
DECLARE @parameterID int = 48 -- ACERAGE

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

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

-- Insert data
INSERT INTO Combined_CW (ProgramID, DataStreamID, ParameterID, LocationID, SpeciesID, Genus,
SpeciesGroup1, SpeciesGroup2, LandCoverID, SampleDate, Transect_M, ResultValue, DateAdded, QAQCFlag,
AreaID, CHIMMP, Year, Month, GISSourceID, GISUniqueID, DataFileName, MADup)
SELECT @programID, @dataStreamID, @parameterID, NULL, NULL, NULL, NULL, NULL, a.LandCoverID,
a.SampleDate, NULL, a.Hectares, GETDATE(), NULL, a.AreaID, a.Region_1, NULL, NULL, a.SourceID,
a.UniqueID, NULL, NULL
FROM GIS_4045_WETLANDS_INTERSECT a
WHERE a.CoastalWetland_YN = 'Y'

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

/*
SELECT *
FROM Combined_CW
where programid = 4045

SELECT *
FROM Combined_Data_Tracking
where Programid = 4045

SELECT *
FROM GIS_4045_WETLANDS_INTERSECT

SELECT *
FROM Combined_Parameters

SELECT *
FROM DataStreamProcedure
WHERE ProgramID = 4045

exec usp_delete_combined 1306, 'Combined_CW'
*/

```


END

GO

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_oyster_insert_4045]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '4045I';
DECLARE @combinedTable varchar(50) = 'Combined_OYSTER'
DECLARE @parameterID int = 37

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

SELECT @dataStreamID = DataStreamID,
@programID = ProgramID
FROM DataStreamProcedure
WHERE DataLoadCode = @dataLoadCode;
--
-- Insert data
INSERT INTO Combined_OYSTER (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate,
SurveyMethod, PercentLiveMethod, HabitatClassification, QuadSize_m2, ResultValue, DateAdded, QAQC
AreaID, GISUniqueID, GISSourceID, LandCoverID)
SELECT @programID, @dataStreamID, @parameterID, NULL, a.SampleDate, 'Aerial Mapping', NULL, NULL,
NULL, a.Hectares, GETDATE(), NULL, a.MA_AreaID, a.UniqueID, SourceID, REF_LandCover_Include_LandC
FROM GIS_4045_BENTHIC_INTERSECT_NEWa
WHERE a.MA_AreaID <> 9999
AND REF_LandCover_Include_Oyster_YN = 'Y'
--
exec usp_combined_data_tracking_insert @parameterID = @parameterID, @ProgramID = @programID,
@dataStreamID = @dataStreamID, @CombinedTableName = @combinedTable, @NumRowsFinal = @@ROWCOUNT,
@LastUpdateBy = @runBy

/*
SELECT *
FROM Combined_OYSTER
WHERE ProgramID = 4045

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 Combined_Data_Tracking
where ProgramID = 4045

SELECT *
FROM GIS_4045_BENTHIC_INTERSECT

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 = 4045

exec usp_delete_combined 1306, 'Combined_OYSTER'
*/

```

END

GO