

Data Acquisition Standard Operating Procedures

Estero Bay Seagrass Monitoring (ID# 571)

Last Updated: 5/6/2023

Program Summary

Seagrass ecology, Bi-annual monitoring in February and August, Fixed transects with repeat sampling stations, Beginning and end of bed vary each year, Water quality

URLs

- Program - <https://floridadep.gov/fco/fco/content/mapping-and-monitoring-seagrass-communities>
- DDI - <https://data.florida-seacar.org/programs/details/571>

Contacts

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Data Tables

- Data_571A_Final
- Data_571A_Load

Data Stored Procedures

- usp_Data_571A_Final_insert
- usp_combined_sav_insert_571A

Data Acquisition Standard Operating Procedures: ProgramID 571

Date Created: 11/20/2018

Created By: *Claude Kershaw*

Date Modified: 10/23/2020

Modified By: *Girija Bandaru*

Date Modified: 04/07/2021

Modified By: *Girija Bandaru*

Data File Path:

1. Data: "\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0571_0571_SAVCHAPEBAP\DataToLoad\2019-01-24_Seagrass_Database_1998-2018.accdb"
2. Query: "SEACAR EXPORT2"
3. Spatial Data: Tables – "Station", "Site",
\\forest.usf.edu\data\PDrive\CAS-WI\Misc Projects\SEACAR_FDEP\Data\ID_0571_0571_SAVCHAPEBAP\CHAP_Seagrass_Monitoring_Protocols_2015.pdf
4. Data: "U:\Misc_Projects\SEACAR_FDEP\Data\ID_0570_0571_SAVCHAPEBAP\DataToLoad\SEACAR_CHAP_Seagrass_6_20.xlsx "
5. Data: "U:\Misc_Projects\SEACAR_FDEP\Data\ID_0570_0571_SAVCHAPEBAP\DataToLoad\SEACAR_CHAP_Seagrass_3_21.xlsx"

DDI URL: <http://dev.seacar.waterinstitute.usf.edu/datadiscovery/programs/details/571>

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Procedure Overview:

1. Use SQL Server Import Export Wizard to load the data from the query "SEACAR EXPORT2" into table **Data_571A_Load**.
2. Use SQL Server Import Export Wizard to load the data from the query "571" sheet from SEACAR CHAP Seagrass 3_21.xlsx into table **Data_571A_Load**.
3. Use SQL Server Import Export Wizard to load spatial data into table **Locations_571A**.
4. Execute procedure usp_Data_571A_Load_insert to load the data into table **Data_571A_Final**.

5. Delete data where the Seagrass Strata <> "Estero Bay"
6. Deleted the records of Data_571A_final and Data_571A_Load tables as we got updated data.
7. Created a new sheet (Program_571) in excel file "SEACAR CHAP Seagrass 6_20.xlsx" to load the data into table **Data_571A_Load**.
8. Execute procedure usp_Data_571A_Load_insert to load the data into table **Data_571A_Final**.
9. Add the Monitoring Locations to the **SampleLocation_Point** table if they do not exist there already.
10. Add new Monitoring Locations into the **SampleLocation** table. This will generate a LocationID for each Monitoring Location.
11. Update the **SampleLocation_Point** table with the LocationID generated in the **SampleLocation** table. Run procedure usp_SampleLocation_Point_update to do this.
12. Update the LocationID column in table **Data_571A_Final** with the LocationID in the **SampleLocation** table. Join on the [Site] column in the Final data table and the ProgramLocationID column in **SampleLocation**.
13. Added the new column (ScientificName) to final table and updated that column by using statements from **usp_combined_sav_insert_571A** procedure

Data Tables

1. Data_571A_Load
2. Data_571A_Final

Data Stored Procedures

1. usp_Data_571A_Load_insert
2. usp_SampleLocation_Point_update

GIS Procedures

1. The Monitoring Location information is found in the document "CHAP Seagrass Monitoring Protocols_2015.pdf" provided by the Program.
2. Complete steps 5 through 8 in the "Procedure Overview" section of this document.

```

SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_combined_sav_insert_571A]
AS
BEGIN
SET NOCOUNT ON;
SET XACT_ABORT ON;

-- Add Species Scientific Name
/*
alter table DATA_571A_Final add ScientificName varchar(50)

update DATA_571A_Final
SET Species = REPLACE(Species, 'a-', '')
where Species like 'a-%'
ÿ
SELECT Distinct ScientificName
FROM Data_571A_Final a
where ScientificName not in (SELECT ScientificName
                             FROM ref_species)

update DATA_571A_Final
SET ScientificName = Species
update DATA_571A_Final
SET ScientificName = 'Halodule wrightii'
where Species = 'Halodule'
update DATA_571A_Final
SET ScientificName = 'Thalassia testudinum'
where Species = 'Thalassia'
update DATA_571A_Final
SET ScientificName = 'Syringodium filiforme'
where Species = 'Syringodium'
update DATA_571A_Final
SET ScientificName = 'Halophila spp.'
where Species = 'Halophila'
update DATA_571A_Final
SET ScientificName = 'Hydrilla verticillata'
where Species = 'Hydrilla'
update DATA_571A_Final
SET ScientificName = 'No grass In Quadrat'
where Species = 'No Cover'
update DATA_571A_Final
SET ScientificName = 'Ruppia maritima'
where Species = 'Ruppia'
update DATA_571A_Final
SET ScientificName = 'Sargassum buxifolium'
where Species = 'Sargassum buxifolium'
update DATA_571A_Final
SET ScientificName = 'Vallisneria americana'
where Species = 'Vallisneria'
*/

-- Constants - PLEASE SET NOW!!
DECLARE @dataLoadCode varchar(10) = '571A';
DECLARE @combinedTable varchar(50) = 'Combined_SAV'
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
```

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```
-- Insert data
SET @parameterID = 21 -- BB per individual species
```

```
INSERT INTO Combined_SAV (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate, SpeciesID,
SamplingMethod1, SamplingMethod2, ReportingLevel, QuadSize_m2, Grid, ResultValue, Depth_M, DateAdded,
QuadIdentifier, SiteIdentifier)
```

```
SELECT@programID, @dataStreamID, @parameterID, a.LocationID, a.Date, c.SpeciesID, 'Fixed',
'Natural', 'Quadrat', 1.00, NULL, a.Abund, NULL, GETDATE(), Station, Site
```

```
FROMData_571A_Finala
```

```
INNER JOINref_conversion_species b on a.Species = b.OriginalCommonIdentifier AND b.DataStreamID =
@dataStreamID
```

```
INNER JOIN ref_species c on b.SpeciesID = c.SpeciesID
```

```
WHEREa.Abund IS NOT NULL
```

```
ANDa.Species is not null
```

```
-- Add Drift Algae BB - has it's own column
```

```
UNION ALL
```

```
SELECT@programID, @dataStreamID, @parameterID, a.LocationID, a.Date, 15414, 'Fixed', 'Natural',
'Quadrat', 1.00, NULL, a.DAAbunA, NULL, GETDATE(), Station, Site
```

```
FROMData_571A_Finala
```

```
WHEREa.DAAbunA IS NOT NULL
```

```
ANDa.Species is not null
```

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

```
-- Insert data
```

```
SET @parameterID = 21 -- BB for "Total Abundance"
```

```
INSERT INTO Combined_SAV (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate, SpeciesID,
SamplingMethod1, SamplingMethod2, ReportingLevel, QuadSize_m2, Grid, ResultValue, Depth_M, DateAdded,
QuadIdentifier, SiteIdentifier)
```

```
SELECT@programID, @dataStreamID, @parameterID, a.LocationID, a.Date, c.SpeciesID, 'Fixed',
'Natural', 'Quadrat', 1.00, NULL, a.TotAbun, NULL, GETDATE(), Station, Site
```

```
FROMData_571A_Finala
```

```
INNER JOIN ref_species c on 'Total Seagrass' = c.CommonIdentifier
```

```
WHEREa.TotAbun IS NOT NULL
```

```
ANDa.Species is not null
```

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

```
-- Insert data
```

```
SET @parameterID = 52
```

```
INSERT INTO Combined_SAV (ProgramID, DataStreamID, ParameterID, LocationID, SampleDate, SpeciesID,
SamplingMethod1, SamplingMethod2, ReportingLevel, QuadSize_m2, Grid, ResultValue, Depth_M, DateAdded,
QuadIdentifier, SiteIdentifier)
```

```
SELECT@programID, @dataStreamID, @parameterID, a.LocationID, a.Date, c.SpeciesID, 'Fixed',
'Natural', 'Quadrat', 1.00, NULL, a.Shoots_m2, NULL, GETDATE(), Station, Site
```

```
FROMData_571A_Finala
```

```
INNER JOINref_conversion_species b on a.Species = b.OriginalCommonIdentifier AND b.DataStreamID =
@dataStreamID
```

```
INNER JOIN ref_species c on b.SpeciesID = c.SpeciesID
```

```
WHEREa.Shoots_m2 IS NOT NULL
```

```
ANDa.Species is not null
```

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```
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, b.IndicatorName, c.ParameterName, NumRowsCombined, LastUpdateDate
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'

SELECT *
FROM Data_571A_Final

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 = 571

SELECT *
FROM ref_species
where habitat = 'Submerged Aquatic Vegetation'
and scientificname like '%drif%'

SELECT *
FROM ref_conversion_species
WHERE ProgramID = 571

exec usp_delete_combined 44, 'Combined_SAV'
*/

END

```

GO

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC usp_Data_570_571_Final_insert
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

TRUNCATE TABLE Data_571A_Final

INSERT INTO Data_571A_Final ([Year], [Date], [Site], Station, CorrDepth, Sed, TotAbun, Species,
Abund, Shoots_m2, BLAve, EpiDen, EpiA, EpiB, DAAbunA, Species_Comments, Station_Comments, Agency,
Seagrass_Strata, Bed, Season, LocationID, ScientificName)
SELECT[Year], [Date], [Site], Station, CorrDepth, Sed, TotAbun, Species, Abund, Shoots_m2,
BLAve, EpiDen, EpiA, EpiB, DAAbunA, Species_Comments, Station_Comments, Agency, Seagrass_Strata, Bed,
Season, LocationID, ScientificName
FROMData_570A_Final a
END

GO
```

```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
CREATE PROC [dbo].[usp_Data_571A_Final_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON

TRUNCATE TABLE Data_571A_Final

INSERT INTO Data_571A_Final ([Year], [Date], [Site], Station, CorrDepth, Sed, TotAbun, Species,
Abund, Shoots_m2, BLAve, EpiDen, EpiA, EpiB, DAAbunA, Species_Comments, Station_Comments, Agency,
Seagrass_Strata, Bed, Season)
SELECT[Year], [Date], [Site], Station, CorrDepth, Sed, TotAbun, Species, Abund, Shoots_m2,
BLAve, EpiDen, EpiA, EpiB, DAAbunA, Species_Comments, Station_Comments, Agency, Seagrass_Strata, Bed,
Season
FROMData_571A_Loada

--UPDATE a
--SET a.LocationID = b.LocationID
--FROM Data_571A_Final a
--INNER JOIN SampleLocation b on a.site = b.ProgramLocationID
--WHERE b.ProgramID = 571

END

GO
```



```
SET ANSI_NULLS ON
SET QUOTED_IDENTIFIER ON
create PROC [dbo].[usp_Data_571A_Load_insert]
AS
BEGIN
SET NOCOUNT ON
SET XACT_ABORT ON
```

```
insert into Data_571A_Final
```

```
([Year] ,
[Date] ,
[Site] ,
[Station] ,
[CorrDepth] ,
[Sed] ,
[TotAbun] ,
[Species] ,
[Abund] ,
[Shoots_m2] ,
[BLAve] ,
[Epi Den] ,
[Epi A] ,
[Epi B] ,
[DAAbunA] ,
[Species_Comments] ,
[Station_Comments] ,
[Agency] ,
[Seagrass_Strata] ,
[Bed] ,
[Season] )
```

```
Select [Year] ,
[Date] ,
[Site] ,
[Station] ,
[CorrDepth] ,
[Sed] ,
[TotAbun] ,
[Species] ,
[Abund] ,
[Shoots_m2] ,
[BLAve] ,
[Epi Den] ,
[Epi A] ,
[Epi B] ,
[DAAbunA] ,
[Species_Comments] ,
[Station_Comments] ,
[Agency] ,
[Seagrass_Strata] ,
[Bed] ,
[Season]
from Data_571A_Load;
```

```
END
```

```
GO
```