

JOB REPORT

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Project No. M-4-R-2 Date 1 July 1960.

Project Name: General Ecological Survey of the Matagorda Bay Area.

Period Covered: June 15, 1959 - June 1, 1960. Job No. G-2

Basic Survey of the Flora Components of the Matagorda Bay Area M-4.

Objective: To prepare a checklist of the forms present in area M-4 and designate their location and abundance.

Procedure: Samples of flora collected by trawl, pushnet, and hand were made in conjunction with Jobs No. A-2 and B-2.

Findings: Checklist

Chlorophyceae

Ulvaceae

Enteromorpha flexuosa - Guest, near Palacios, February 1957. Day and Lyon awash on beach along north shore of Matagorda Bay, May 1960.

E. lingulata - Taylor, Indianola, January and February 1853.

E. plumosa - Smith, Lavaca Bay, June 1937. Day and Lyon, Matagorda Peninsula, May 1960.

E. facilaris - Day and Lyon, Matagorda Peninsula, May 1960.

Ulva lactuca - Smith, Palacios, August 1937. Smith, Lavaca Bay, June 1937. Schott, Indianola, February 1853. Day and Lyon, Matagorda Peninsula, May 1960.

Dasycladaceae

Acetabularia crenulata - Day and Lyon, Matagorda Peninsula, May 1960.

Phaeophyceae

Fugaceae

Sargassum fluitans - Day and Lyon, awash at Palacios Bayou, and south side of Matagorda Bay, February and June 1960.

Rhodophyceae

Hypnaceae

Hypnea cervicornis - Day and Lyon, Matagorda Peninsula, May 1960.

H. musciformis - Guest, Well Point, (unattached), February 26, 1957.

Solieriaceae

Agardhiella sp. - Guest, Well Point, February 1957.

Gracilariaceae

Gracilaria confervoides - Schott, Indianola, January and February 1853. Bailey, Matagorda Bay, June 1937.

G. foliifera - Guest, Matagorda Bay (unattached), May 1957.

G. sp. (?) - Day and Lyon, Turtle Bay, Carancahua Bay, north shore of Matagorda Bay, May and June 1960.

Ceramiales

Centroceras clavulatum - Schott, Indianola, February 1854. Day and Lyon, Matagorda Peninsula, May 1960.

Ceramium filamentosa - Day and Lyon, Matagorda Peninsula, May 1960.

C. strictum - Schott, Indianola, January and February 1853.

Spyridia filamentosa - Guest, Well Point, March 1957. Day and Lyon, Matagorda Peninsula, May 1960.

Dasyaceae

Dasya pedicellata - Schott, Indianola, January 1853.

Rhodomelaceae

Chondria atropurpurea - Day and Lyon, Matagorda Peninsula, May 1960.

C. tenuissima - Day and Lyon, Matagorda Peninsula and Port Alto, May 1960.

Digenia simplex - Schott, Indianola, 1855.

Laurencia sp. - Day and Lyon, north shore of Matagorda Bay, May 1960.

Polysiphonia ferulacea - Schott, Indianola, 1855. Day and Lyon, Port Alto, May, 1960.

Remarks: Those species located by Taylor, Schott, or Bailey have been taken from literature. (See bibliography). Those collected by Guest are contained in the Texas Game and Fish Commission, Marine Division herbarium at Rockport, Texas.

Some other algae not listed have been collected, but not yet completely identified.

The abundance and distribution of the spermatophytes, Ruppia maritima and Diplanthera wrightii, are reversed in the 1958-59 marine laboratory, annual report (M-4-R-1; G-2). D. wrightii is the more abundant and widely distributed.

Spartina alterniflora borders the bays on protected flats areas through-

out the entire general area, and in the bayou area (eastern half) of the Matagorda Peninsula.

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Accepted by Howard T. Lee  
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Date 28 November 1960

#### REFERENCES

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<u>Mugil cephalus</u>	8
<u>Cyprinodon variegatus</u>	1
Unidentifiable fish	1
<u>Callinectes sapidus</u>	99
<u>Penaeus aztecus</u>	9
Palaemonid shrimp	1
<u>Annelid</u>	1
<u>Organic dietritus</u>	1

(Note: This tabled data includes one sample taken August 4, 1960, when 73 redfish stomachs all contained Callinectes sapidus)

Zero age class redfish were first taken in January 1960 (range 19mm, 30 mm). Zero age class redfish taken in February 1960 were 39 mm and 54 mm. April 1960, young redfish 66 mm to 72 mm in length. Young redfish were not found in any concentrations throughout this area.

#### Flounders (Paralichthys lethostigma)

Two hundred seventy-five flounders were examined for stomach contents in area M-4 during the winter of 1959 and summer of 1960. Seventy-three flounders contained food.

The following list of species found in flounder stomachs indicates the number of stomachs in which each species was found.

<u>Mugil cephalus</u>	30
<u>Micropogon undulatus</u>	7
<u>Polydactylus octonemus</u>	1
<u>Menidia beryllina</u>	1
<u>Lagodon rhomboides</u>	1
<u>Cynoscion arenarius</u>	1
Unidentifiable fish	15
<u>Callinectes sapidus</u>	17
<u>Loliguncula brevis</u>	5
<u>Penaeus aztecus</u>	2
Unidentifiable crab	1

Zero age class flounders were first taken in January 1960, in Carancahua Bay near Schrike's Point and the Tres Palacios River at a size range from 13 mm

to 21 mm. In February 1960, small flounders were taken throughout the area over mud to sand bottom. The size range was 13 mm to 28 mm with a major size class of 15 mm to 20 mm. March showed a decrease in abundance of the young flounder along the shore area. (size range 14 mm to 23 mm). By March 1960, zero age class flounder ranged in size from 29 mm to 74 mm and by May were gone from the shore areas.

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Date

7 November 1960