

JOB REPORT

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A Qualitative Survey of Floral Types in Corpus Christi Bay

Objectives: To obtain a check list of the attached algae and flowering plants associated with the marine environment in the Corpus Christi Bay area.

Procedure: Vegetation was noted and samples collected in the field. Specimens were taken from periodically inundated salt flats and from submerged areas. A rake, dragged along the bottom, was used to obtain specimens from the benthic division. Collected specimens were preserved in bay water with 2% formalin.

Findings: The heaviest growth and greatest variety of attached algae was found in lower Red Fish Bay and along the eastern portion of Corpus Christi Bay extending from lower Shamrock Cove northward to the shipping channel. Flowering plants grow on the eastern salt flats and along the shorelines of spoil banks.

Observed algae was found to be both epiphytic or epizooic, i.e. attached to other plants or animals. Most of the benthic forms were, however, lithophytic, i.e. attached to sand, mud or shell. Only general observations were made as to density of growth and distribution.

Bottom vegetation in the southern, western, northern and central areas of Corpus Christi Bay was sparse or absent throughout the year. Ulva, Cladophora, and Enteromorpha species made seasonal appearances along pilings, jetties, and sea-walls. It appears that the bottom characteristics for a large portion of Corpus Christi Bay are not favorable to attachment by vegetation. It is noted that those eastern areas of Corpus Christi Bay which support heavy growth have substrates which differ from the rest of the bay. Other factors also may hinder or promote vegetative growth. As expected, variety of species and growth was greatest during the summer months although some species were present throughout the year.

Of the forty-three specimens collected nine remain unidentified. The following check list of species includes both algae and higher flowering plants. Identification of the latter by Mr. Fred Jones of Corpus Christi is appreciated. The present check list, based upon collected specimens, is not considered to be a complete listing of species present. It was interesting to note that only seven algal species on the present check list are among the twenty-one species listed by Taylor (1940) as occurring in Corpus Christi Bay. It is reasonable to assume that many of the species listed by Taylor are still present in the area.

Species: Acetabularia crenulata, Atriplex pentandra, Batis maritima, Cakile lanceolata, Chondria sp., Chondria dasyphyllis, Cladophora sp., Dictyota dichotoma, Digenia simplex, Diplanthera wrightii, Enteromorpha sp., Enteromorpha flexuosa, Gracilaria caudata, Gracilaria foliifera, Hypnea cervicornis, Hypnea cornuta, Halophila engelmanni.

Hypnea musciformis, Laurencia sp., Limonium carolinianum, Machaeranthra phyllocephala, Monanthochloe littoralis, Opuntia macatee, Prosopis juliflora, Salicornia bigelovii, Sargassum natans (floating; from Gulf), Sesuvium portulacastrum, Spartina alterniflora, Spartina patens, Sporobolus virginicus, Suaeda conferta, Suaeda linearis, Thalassia testudinum, Ulva fasciata.

Comments: The Corpus Christi Bay marine environment supports a limited variety of plant species. These species are not evenly distributed; most growth occurs in lower Redfish Bay and eastern Corpus Christi Bay. The submerged vegetation is of particular importance to the total ecology of the region as it is a source of food and protection to a number of marine animals.

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12 December 1960

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