THE UNIVERSITY OF TEXAS AT AUSTIN
BUREAU OF ECONOMIC GEOLOGY
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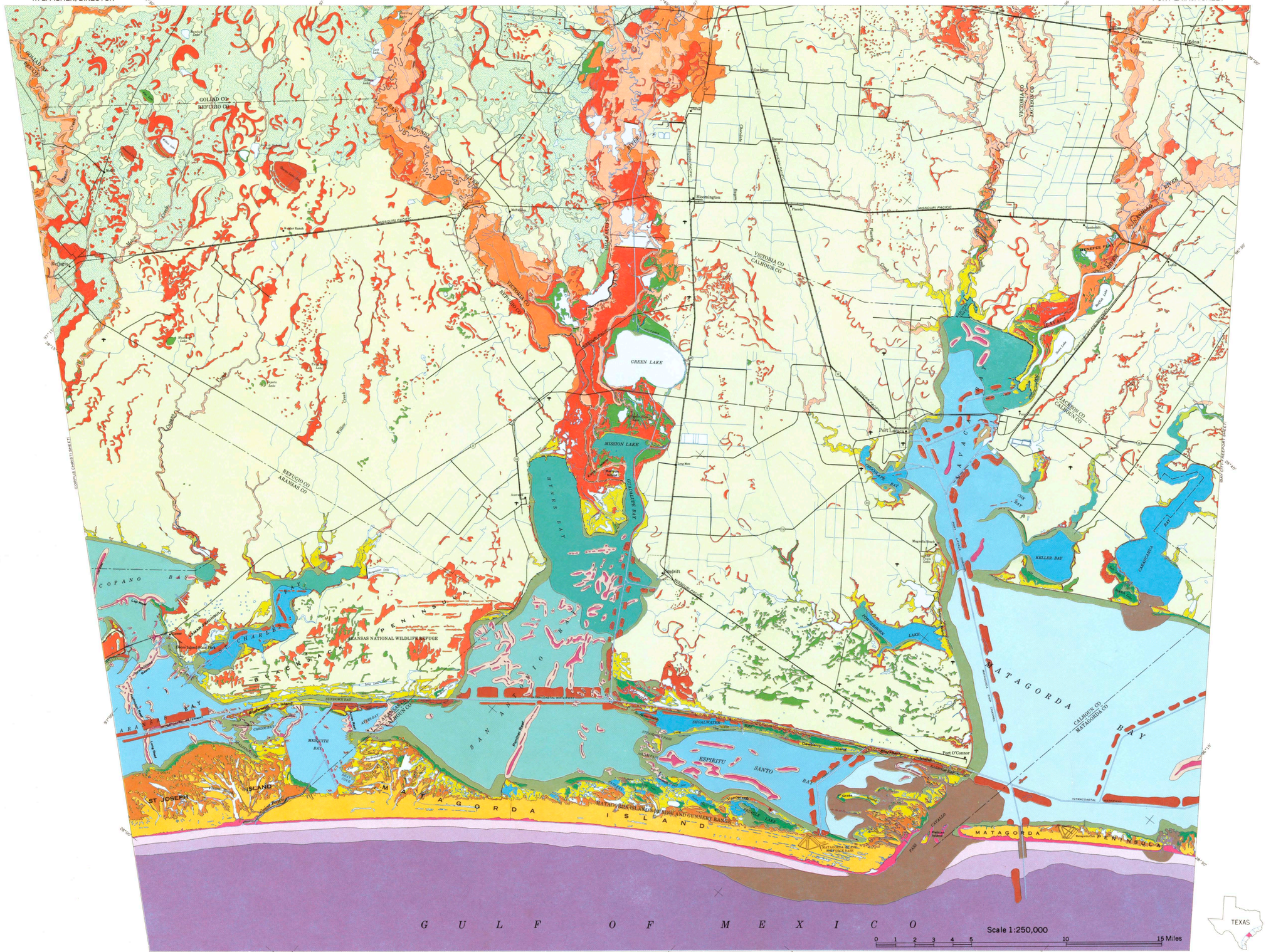
ENVIRONMENTAL GEOLOGIC ATLAS,
TEXAS COASTAL ZONE
PORT LAVACA SHEET



Mapping and cartography by Bureau of Economic Geology
Geology mapped on aerial mosaics, Edgar Tobin Aerial Surveys
Base adapted from U.S.G.S. topographic maps
Sources of data and credit for contributions to maps given in text

EXPLANATION*

SUBAQUEOUS ENVIRONMENTS AND ASSEMBLAGES

(Principally benthonic organisms with limited mobility)

- Shelf, open marine, normal salinity (35°/₀₀), mottled mud, diverse infauna and benthonic assemblage, depth > 30 feet
- Lower shoreface, open marine, normal salinity (35°/₀₀), moderate wave action, sand, silt and mud, infauna, mud shrimp, mollusks, depth 15 to 30 feet
- Upper shoreface, strong wave action, surf zone, shifting sands, normal salinity (35°/₀₀), mollusks, sand dollars and starfish, crustaceans, depth low tide to 15 feet
- Inlet and tidal delta, sand, mud and shell, diverse epifauna, mollusks, echinoderms, coral and bryozoans, clionid sponges, depth < 40 feet
- Bay margin, shoal water bordering bay, sand to mud, sparse marine grass, variable salinity and temperature, mollusks, depth to 3 feet
- Grassflats, shallow bay margin with dense grasses, salinity 25 to 35°/₀₀, moderately diverse mollusk assemblage, depth < 5 feet
- Open bay, lower end of bay with tidal influence, salinity 20 to 35°/₀₀, mottled mud, high species diversity, infauna, mollusks, depth 6 to 10 feet
- Open bay with reefs, similar to open bay with scattered clumps of oyster reef, depth 3 to 10 feet
- Enclosed bay, away from tidal or river influence, mottled mud, similar to open bay but reduced species diversity, clams, depth 3 to 8 feet
- Enclosed bay with reef, similar to enclosed bay, with scattered clumps of oyster reefs, depth 3 to 8 feet
- Reef, dense oysters, distinct mounds or ridge-like, commonly aligned normal to circulation, firm substrate, salinity 10 to 30°/₀₀, depth 8 feet or less, associated mollusks, coral, bryozoans
- Reef flank and margin, level bottom between reefs, few clumps of oysters, sand, mud, and broken shell, salinity 10 to 30°/₀₀, depth 3 to 6 feet
- River-influenced bay, low salinity (<10°/₀₀), near fresh-water discharge, laminated mud, mottled mud, low species diversity with mollusks, crustaceans, depth 3 to 7 feet
- Subaqueous and subaerial spoil, artificial, sand and silt, poorly sorted, assemblage depends on age of spoil, depth and elevation variable
- Fresh to brackish-water bodies, land-locked ponds and lakes, variable substrates, inland bodies fresh, coastal bodies temporarily brackish or saline

SUBAERIAL ENVIRONMENTS AND ASSEMBLAGES

(Principally floral assemblages)

- Beach, low tide to 5 feet above sea level, swash zone, high energy, sand, shell debris, infauna, back-beach sea-oats and halophytes, dunes, ghost crab
- Vegetated barrier flat, foredune ridge, beach ridge, and vegetated flat, relief 5 to 15 feet, salt-tolerant grasses, mesquite and live oak-trees, ghost crab, small rodents, snakes, fowl
- Sand flats, a few inches above mean sea level, undulatory sand surface with blue-green algal mats, thin halite film, marsh plants rare
- Salt-water marsh, frequently inundated by tides, sand, muddy sand to mud, cordgrass, glasswort, seepweed, sea-oxeye, mammals, fowl
- Brackish to fresh-water marsh, sand, muddy sand, and mud, grades into saltmarsh, coastal sacahuista, marshy cordgrass, big cordgrass, bullrush, cattail, rushes, mammals, snakes, fowl
- Inland fresh-water marsh, sand and mud, rushes, bullrush, cattail, slough-grass, mammals, fowl
- Prairie grasslands, flat to gently rolling upland, prairie grasses, mud and sand substrate, much of area cultivated, bluestem, indiangrass, sparse mesquite, hackberry, huisache, chaparral, cactus, fowl and small mammals, stippled in areas of oaks and brush
- Swamp, drainage poor, sediment and water by overbanking fluvial systems, dwarf palmetto, cypress, elm, bay, mulberry, water oak, gum, grapevine, and yaupon, raccoon, opossum, some mink and squirrels, fowl, snakes
- Frequently flooded fluvial areas, water-tolerant plants, mud to sand, fresh-water reeds, rushes, and trees, mammals and fowl
- Fluvial woodland, water-tolerant hardwoods, pecan, hickory, live oak, water oak, blackjack oak, elm, hackberry, sweetgum, red haw, ash, carpetgrass, bermudagrass, greenbriar, yaupon, grape, mammals, fowl, snakes
- Fluvial grassland, grasses and brushes, bluestem, sacahuista, mesquite, catclaw, *Acacia*, mammals, fowl, snakes
- Oak mottes and groves, live oak and dwarfed live oak, permeable and well drained, salt spray may kill leaves on windward side, grow rapidly leeward producing sculptured oak mottes, rodents, snakes
- Berms along bay-lagoon margin, storm deposits, sand, shell, local salt and brackish-water marsh in swales and ponds, salt -tolerant grasses, snakes, fowl
- Barren land, small bayside beaches, sand flats
- Made land, filled, graded, sand, mud, and shell, locally some vegetation

Sources of data given in text

*This map shows principally the distribution of major subaerial floral and subaqueous benthonic faunal assemblages. The legend includes only general biologic groups that are common or abundant. Refer to text for lists of specific plants and animals.

ENVIRONMENTS AND BIOLOGIC ASSEMBLAGES

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