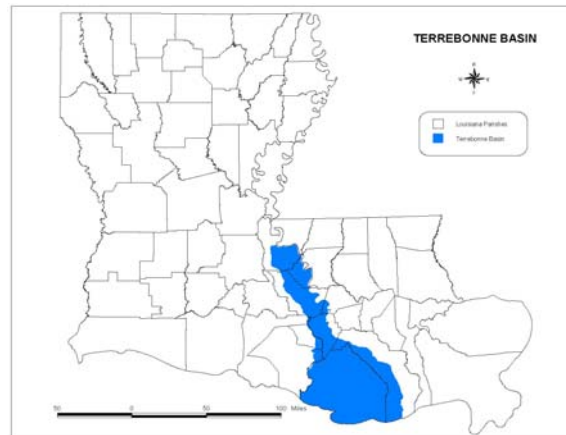


k. Terrebonne Basin

General Description:

The Terrebonne Basin covers approximately 1,712,500 acres in south-central Louisiana (LCWRCTF 1993), bordered by Bayou Lafourche to the east, the Atchafalaya Basin floodway to the west, the Mississippi River to the north, and the Gulf of Mexico to the south. It includes all of Terrebonne Parish and parts of Lafourche, Assumption, St. Martin, St. Mary, Iberville, and Ascension Parishes.



The extreme northern portion of the basin is primarily agriculture lands which continue south along its eastern edge within the historic floodplains of the Mississippi River and Bayou Lafourche. The western half of the basin consists of bottomland hardwood forests and cypress-tupelo-blackgum swamps. The coastal zone consists of fresh and intermediate marsh inland to brackish and salt marsh near the bays and gulf (LaCoast 2005). Approximately 729,000 acres of the Terrebonne Basin are wetlands which consist of about 21% freshwater swamp and 79% marsh (LaCoast 2005). The two primary water sources that enter this system are rain water and flood water from the Atchafalaya River containing nutrient-rich sediments which inundate the southwestern coastal marshes (LaCoast 2005).

There are roughly 57 species of freshwater fishes (W. Kelso, personal communication), 12 species of mussels (Vidrine 1993), and 10 species of crawfish (J. Walls, personal communication) found within the Terrebonne Basin.

Water Quality:

The 2004 Water Quality Inventory Report (LDEQ 2004) indicated that 31% of the 60 water body subsegments within the basin were fully supporting their three primary designated uses. However, 66% of the subsegments were not supporting their designated use for fish and wildlife propagation. The suspected causes for these water quality problems include: metals, pesticides, nutrients, fecal coliform, non-native aquatic plants, organic enrichment and low concentration of dissolved oxygen, dissolved and suspended solids, pH levels, sedimentation/siltation, and turbidity. The suspected sources of the water quality problems include: non-irrigated crop production, pasture land, urban runoff, hydromodification, combined sewers and unsewered areas, surface runoff, and spills.

TERREBONNE BASIN SPECIES OF CONSERVATION CONCERN (3)	
FRESHWATER FISH Paddlefish	REPTILES Alligator Snapping Turtle Mississippi Diamond-backed Terrapin

Priority Species Research and Survey Needs:

Alligator Snapping Turtle: Baseline mark-release data were obtained during the late 1990s. New surveys are needed to obtain population trend data for this species.

Mississippi Diamondback Terrapin: The status of this species is unknown. Endangered Species Act candidate status is pending. Evaluate trawl data from LDWF Marine Fisheries trawl surveys for distribution estimates. Initiate surveys in vicinity of recent trawl captures to assess current population abundance.

Species Conservation Strategies:

1. Develop data base containing baseline data on current composition and abundance of all species with a focus on species of conservation concern.
2. Sampling is needed to identify trends in range and abundance of native and invasive species throughout the Terrebonne Basin.

Threats Affecting Basin:

The following table illustrates the threats identified for the Terrebonne Basin and the sources of these threats. This represents all threats and sources of threats identified for this basin.

Source of Threat	Threat								
	Altered Composition/ Structure	Altered Water Quality	Change in Land Use Practices	Competition for Resources	Habitat Disturbance	Habitat Fragmentation	Modification of Water Levels; Changes in Natural Flow Patterns	Nutrient Loading	Sedimentation
Channelization of rivers or streams		XXX			XXX		XXX		
Construction of ditches, drainage or diversion systems		XXX	XXX				XXX		XXX
Construction of navigable waterways						XXX	XXX		XXX
Conversion to agriculture or other forest types			XXX				XXX	XXX	XXX
Crop production practices		XXX	XXX				XXX	XXX	XXX
Development/maintenance of pipelines, roads or utilities									XXX
Industrial discharge		XXX						XXX	
Invasive/alien species				XXX					
Levee or dike construction	XXX	XXX	XXX				XXX	XXX	XXX
Oil or gas drilling						XXX	XXX		
Residential development		XXX	XXX				XXX		XXX

Basin Conservation Strategies:

1. Promote oil spill prevention regulations SPC and natural resource response mechanisms NRDA.
2. Promote the use of BMP's for water runoff. Promote enforcement of sanitary regulations.
3. Promote methods to restore historical flow regimes within the Terrebonne Basin.
4. Work with LDEQ and USGS to increase monitoring of nutrient inputs and overall water quality within the Terrebonne Basin.
5. Support research efforts.
6. Prepare educational material on the potential impacts of invasive species to the Terrebonne Basin.
7. Coordinate with the Atchafalaya Basin Program (LDNR) and BTNEP to abate identified threats to this basin.

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