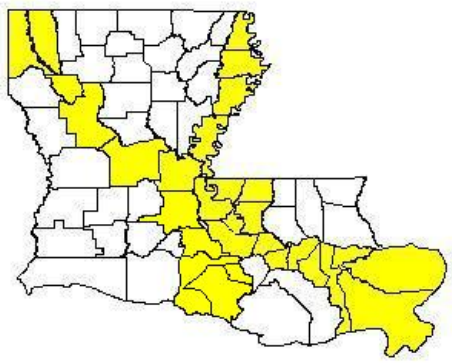
27. Sandbars

Rarity Rank: S4S5/G4
Synonyms: River Sandbar
Ecological Systems: None

General Description:

A sand/gravel deposit in or adjacent to permanently flowing freshwater contained within a natural channel. They are formed from course to fine-drained alluvial deposits. The community structure is dependent on the mix and stability of substrate, severity and depth of flooding, and permanent nature of the particular site. The hydrologic regime ranges from intermittently exposed to intermittently flooded. If present, vegetation is dominated by sparse to dense growth of shrubby or herbaceous plants. *Cephalanthus occidentalis* (buttonbush), and *Sambucus canadensis* (elderberry) are common shrubs, and *Salix nigra* (willow) and *Populus deltoides* (cottonwood) are common tree species (Jones 2004). Herbs include *Scirpus* spp. (bulrush), Carex spp. (sedges), and *Juncus* spp. (rushes) (LNHP 1986-2004). The community is successional in nature but generally remains unforested because of repeated flood disturbance. Also due to the early successional nature of sandbars they can be invaded by exotic plant species (NatureServe 2005). These areas are critical nesting areas for the federally-endangered interior least tern (*Sterna antillarum athalassos*).

Current Extent and Status:



Sandbar habitat within the Mississippi River has shown a general decline over the past 50 years. The U.S. Army Corps of Engineers reported a 33 % decrease in sandbar habitat in the lower Mississippi River between Memphis, Tennessee and Baton Rouge, Louisiana from 1948 to 1994 (U.S. Fish and Wildlife Service 2005). Major threats exist from channelization, water diversions, frequent and prolonged fluctuations in river water levels, changes in

vegetation, and disturbance from recreational use. More research on these areas, particularly in relation to nesting tern colonies, is warranted.

SANDBARS SPECIES OF CONSERVATION CONCERN (14)		
BIRDS	Common Tern	Ringed Map Turtle
Piping Plover	Forster's Tern	Ouachita Map Turtle
American Oystercatcher	Interior Least Tern	Sabine Map Turtle
Dunlin		Pascagoula Map Turtle
Gull-billed Tern	**REPTILES**	Stripe-necked Musk Turtle
Caspian Tern	Alligator Snapping Turtle	

Priority Species Research and Survey Needs:

Terns: Continue to support nesting surveys and initiate research that focuses on factors (such as predation, human disturbance, etc.) effecting overall population densities.

Species Conservation Strategies:

1. Interior Least Tern:
   - Implement conservation recommendations of USFWS recovery plan (USFWS 1990b).
   - Work with COE to regulate water levels during breeding season.
   - Determine feasibility of using abandoned barges as artificial nesting habitat (Hervey 2001).
   - Provide funding to support long term efforts to locate and monitor nest colonies.
2. Map Turtles: Sandbars and beaches provide primary nesting sites, and submerged portions are used for foraging. Eliminate off-road vehicles from sandbars and beaches during nesting periods.

Threats Affecting Habitat:

The following table illustrates the threats identified for this habitat type and the sources of these threats. This represents all threats and sources of threats identified across all ecoregions of the state where this habitat occurs.

Source of Threat	Threat: Habitat Disturbance	Threat: Modification of Water Levels; Changes in Natural Flow Patterns
Channelization of rivers or streams		XXX
Levee or dike construction		XXX
Operation of drainage or diversion systems		XXX
Recreational use/vehicles	XXX	
Shoreline stabilization		XXX

Habitat Conservation Strategies:

1. Determine ownership/management authority for sandbars in the Red and Mississippi rivers.
2. Support vegetation control for sandbars and research on this habitat.
3. Work with COE to develop Memorandum Of Understanding (MOU) regarding sandbar management.
4. Work with the appropriate agencies to develop limits on recreational vehicle use of this habitat.

References:

HERVEY, H. 2001. Nesting success of least turns on the Red River of Louisiana. The Journal of Louisiana Ornithology 5(1):1-21.

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