LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES SECTION

PART VI -A
WATERBODY MANAGEMENT PLAN SERIES

LOWER SABINE RIVER, LOUISIANA

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

July 2014—Prepared by:
Eric Shanks, Biologist Manager, District 5

Remainder of this page intentionally left blank.

TABLE OF CONTENTS

LAKE HISTORY

GENERAL INFORMATION

The lower Sabine River is a coastal river system with moderate discharge that originates in the grassland prairies east of Dallas, TX. This document deals with the river starting at Toledo Bend Dam and ending where it intersects Sabine Lake. Numerous oxbows, backwaters, scar lakes, and cypress swamps are associated with the river. It is a border water of Louisiana and Texas. River flow volume is primarily dependent upon the Toledo Bend Project power generation schedules and the maintenance flow sluice gate discharge which can be viewed at the link:
http://www.sratx.org/basin/lake_and_river_conditions2.htm.

Impoundment

The Toledo Bend Hydropower Project was completed in October of 1966 with the damming of the Sabine River in Sabine Parish, LA and Sabine County, TX. Further information regarding this dam and the reservoir it created can be found in the Louisiana Department of Wildlife and Fisheries (LDWF) Toledo Bend Reservoir Management Plan.

Watershed

The lower Sabine River basin is approximately 1,340 square miles with an additional 7,178 square miles upstream of Toledo Bend dam. The basin is bordered by the Neches River basin (TX) to the west and the Calcasieu River basin to the east. The river has several major tributaries in Louisiana (Table 1), one of which is designated as a scenic stream.

Table 1. Major tributaries of the lower Sabine River in LA, their length in miles, scenic river designation, and LDEQ water body codes.

Waterbody Name	Length (River miles)	Scenic Stream	Waterbody Codes
Bayou Anacoco	81	No	110506 110507 110504 110502 110501
Bayou Toro	22	No	110401 110402
Black Bayou	21	No	110602 110302
Pearl Creek	9	Yes	110202

Parishes/Location

The river is located along the border between Louisiana and Texas and flows through three parishes (Vernon, Beauregard, and Calcasieu) and two counties (Newton and Orange).

Ownership
The water and water bottom of the Sabine River that fall within LA territorial borders and its listed tributaries (Table 1), is owned by the State of Louisiana.

Authorization
The Louisiana Sabine River Authority is responsible for management of the water and water bottoms through Act 261 by the Louisiana legislature in 1950 (RS 38:2321). The Louisiana Department of Wildlife & Fisheries (LDWF) manages the fish and wildlife resources.

CHAPTER 11. SABINE RIVER AUTHORITY
§2321. Creation - All the territory in the parishes of De Soto, Sabine, Vernon, Beauregard, Calcasieu and Cameron, lying within the watershed of the Sabine River and its tributary streams, shall be embraced in the limits of and shall constitute a conservation and reclamation district to be known and styled "Sabine River Authority, State of Louisiana". Added by Acts 1950, No. 261, §1.

Private Organizations
The Waterkeeper Alliance is a private environmental protection group which focuses on citizen actions on issues affecting waterways (http://waterkeeper.org/waterkeeper/sabine-riverkeeper/).

The Sabine River Waterkeeper is Paul Ringo:
Sabine Riverkeeper
2090 Mouth of the Creek Rd.
Merryville, Louisiana 70653
United States of America
337.526.9331
pringo@att.net

PUBLIC ACCESS

Boat Ramps
There are 5 public boat ramps in Louisiana on the lower Sabine River (Table 2), see Appendix for map.

Table 2. List of lower Sabine River public boat launches by parish.

Parish	Ramp Name	Latitude	Longitude
Vernon	Hadden's Ferry (unimproved)	31.186077	-93.535107
Beauregard	Palmer Lake Rd.	30.844917	-93.567192
Calcasieu	Niblett's Bluff Park – two ramps	30.200437	-93.679411
	Old U.S. Hwy 90 ("burned out bridge")	30.102067	-93.693160

Boat Docks
Boat docks are available at the following ramps:
Niblett's Bluff Park
Old Hwy 90

State/Federal facilities
Sabine Island Wildlife Management Area is located on the Lower Sabine River. It is located in Calcasieu parish between Sabine River and Old River. For more information visit the LDWF website at: http://www.wlf.louisiana.gov/wma/2775.

SHORELINE DEVELOPMENT

State/National Parks
There is no state or national parks on the lower Sabine River in Louisiana.

Shoreline Development by Landowners
Very little development is present on the Louisiana side of the lower Sabine River.

PHYSICAL DESCRIPTION

Shoreline length
Approximately 146 river miles

Timber type
Predominately cypress/tupelo swamps, hardwood bottoms, and river birch/willow trees

Average depth
Approximate mean depth of 5 feet

Maximum depth
Approximate maximum depth of 30 feet

Natural seasonal water fluctuation
Annual elevation changes of 7' to 12' are common, with significant flood events raising elevations up to 25 feet.

Events/Problems
Construction of Toledo Bend Dam
The construction of the Toledo Bend Dam in 1966 altered the natural river flows. Downstream flows are heavily influenced by power generation at the dam, particularly during normal low water conditions. The dam acts as an upstream barrier to migratory riverine fishes and downstream "pulsed" flows affect all aquatic biota, particularly fish and mussels. Water levels near the dam (river mile 140 – 146) may rise and fall six to eight feet within a matter of minutes during active power generation, while 50 river miles downstream

the rise and fall of water levels are more subtle - nonetheless still ranging from plus or minus one to two feet in a matter of hours. In the absence of power generation, river maintenance flows (144 cfs) are sustained via the sluice gate located at the spillway on the Louisiana side of the dam. Impacts of major dams and the effect of power generation flows on river hydrology and biota are well documented and reviewed by Yeager (1993) in *Impacts on Warmwater Streams: Guidelines for Evaluation*.

Sabine River Diversion Canal
The Sabine River diversion was authorized by Acts 90 and 117 of the 1970 Louisiana legislature for the purpose of transporting fresh water from the Sabine River to Lake Charles industries. Construction was completed by the Louisiana Department of Public Works in 1981.

Federal Energy Regulatory Commission (FERC) Project Relicensing
The Toledo Bend Project is licensed by the Federal Energy Regulatory Commission as Project No. 2305. The original license for the project was issued on October 14, 1963. The license was valid for a fifty year period with an expiration date of September 30, 2013. At the time of this writing, the Sabine River Authority is operating under the original license pending relicensing approval by FERC.
http://www.tbpjo.org/PublicRelicensing/documents.aspx.

LA/TX Border Water Regulations
In 2011, Texas Parks and Wildlife Department (TPWD) and LDWF staffs agreed on consistent recreational sportfish regulations for all border waters including Caddo Lake, Toledo Bend, and the Sabine River. These regulations were approved and enacted in 2011 by the respective management authorities. Additional changes to the catfish regulations are scheduled to take effect September 1, 2014.

Hurricanes:
The lower Sabine River system is susceptible to hurricane related fish kills. See FISH KILLS/DISEASE HISTORY section below for details on hurricane related fish kills.

MANAGEMENT ISSUES

AQUATIC VEGETATION

Due to river flows from hydroelectric generation, aquatic vegetation is seldom problematic on the river proper. Past control efforts were concentrated on the SRA canal, the "burned out bridge" Hwy. U.S. 90 area (primarily the access canal from the public boat ramp to the river), and Lake Bienvenue (a 50 acre lake at the Louisiana Welcome Center). Since the SRA canal is not open to public access, treatments were discontinued there in 2007. In 2012, giant salvinia was found in Lake Bienvenue and LDWF initiated aggressive spray efforts to control the plant in this small, highly visible water body.

Estimated acreages of aquatic vegetation are as follows:

Fall 2013
Giant salvinia: 100 acres
Water hyacinth: 100 acres
Alligator weed: 100 acres
Common Salvinia 100 acres

Prediction for fall 2014
Common salvinia: 100 acres
Water hyacinth: 100 acres
Alligator weed: 100 acres
Giant salvinia: 100 acres

Biological
In fall 2012, approximately 3,600 adult giant salvinia weevils were stocked at three sites in Lake Bienvenue. In 2013, approximately 5,000 adult weevils were stocked at four sites, also in Lake Bienvenue.

Chemical
Historically, water hyacinth was treated with 2,4-D (0.5 gal/acre), and common salvinia was treated with glyphosate (0.75 gal/acre) or diquat (0.75 gal/acre). Currently, water hyacinth is still treated with 2,4-D (0.5 gal/acre) while salvinia spp. are treated with a mixture of glyphosate (.75 gal/acre) and diquat (0.25 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz/acre) surfactants. Plant problems and spray efforts are concentrated in Lake Bienvenue. Table 3 below represents LDWF chemical treatment efforts on the lower Sabine River system.

Table 3. Lower Sabine River System herbicide treatments for 2007-2013.

Year	Number of Treatments*	Acres Treated	Primary Vegetation Treated
2007	1	14	Water Hyacinth
2008	4	40	Water Hyacinth, Common Salvinia
2009	2	38	Common Salvinia
2010	2	23	Common Salvinia, Water Hyacinth
2011	0	0	N/A
2012	5	75	Giant Salvinia
2013	2	37	Giant Salvinia

*For reporting purposes, a treatment is defined as one crew for one day.

Physical:
During dry conditions and periods of little or no power generation, salinities can reach levels high enough to slow growth rates or kill plants in some areas.

Vegetation Type map

There is no type map available for the lower Sabine River.

HISTORY OF FISHING REGULATIONS

Recreational

The Louisiana half of the lower Sabine River was historically managed under statewide length and creel limits. In 2011, uniform regulations were promulgated by both TX and LA from Toledo Bend Dam downstream to Interstate Highway 10. Current regulations in effect for Sabine River proper can be viewed at: http://www.wlf.louisiana.gov/fishing/regulations

Note that special border water regulations apply only to the Sabine River proper. Louisiana statewide regulations are still in effect for all waterways (including tributaries) that lie wholly within Louisiana and that part of the Sabine River below Interstate Hwy 10. Recreational hoop and wire nets are prohibited below the Intracoastal Waterway (designated saltwater zone), and may not be fished in Texas waters.

Commercial

The lower Sabine River was historically and is currently managed under statewide commercial regulations. Current Louisiana commercial fishing regulations can be found at: http://www.wlf.louisiana.gov/fishing/regulations

Note that gill nets, seines, and trammel nets are prohibited below the Intracoastal Waterway (designated saltwater zone), and no reciprocal commercial regulations exist for the Sabine River. Texas commercial fishing regulations may be viewed at: http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_v3400_0074.pdf

FISH KILLS / DISEASE HISTORY

Fish Kills

On September 24, 2005, Hurricane Rita made landfall in Cameron Parish. The resulting anoxic conditions caused sporadic fish kills along the entire river system to LA 12 in Beauregard Parish. Toledo Bend water releases likely helped to maintain water quality and reduced the length and severity of fish kills. No anoxic conditions were recorded at three weeks after the storm (Figure 1).

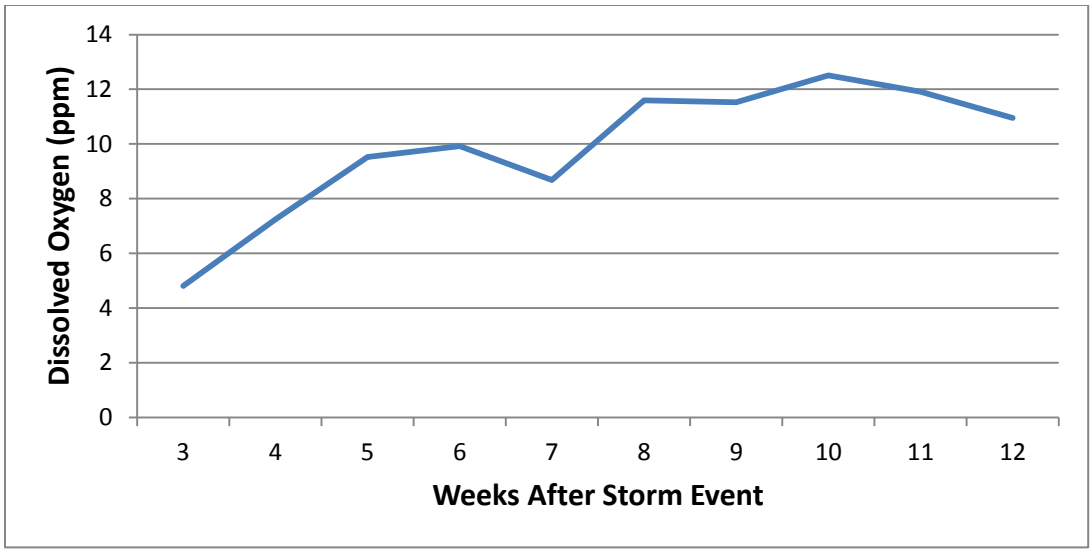

Figure 1. Dissolved oxygen readings recorded at Nibletts Bluff Park, LA on the Sabine River system from 3 to 12 weeks (Oct – Dec) after Hurricane Rita made landfall on September 24, 2005.

Disease History

No disease related fish kills have been documented in the lower Sabine River.

CONTAMINANTS / POLLUTION

Contaminants/pollution

The following fish consumption advisory (Table 4) is in place on a side channel of the lower Sabine River (Old River) and can be found on the Department of Environmental Quality/Mercury Initiative website: http://www.deq.louisiana.gov/portal/Portals/0/planning/Fish%20Consumption%20Advisory%20Table%20-%202-18-09.pdf

No consumption advisories are in effect for the Sabine River proper.

Table 4. Louisiana fish consumption advisory for Old River, LA as of 2014.

Waterbody	**Old River (Niblett's Bluff)** LA110201_00537846 (Calcasieu)
Contaminant	Mercury
Advisory Type	Advisory fish consumption
Recommendations	Women of childbearing age and children less than seven years of age should consume no more than SIX MEALS PER YEAR of bowfin (choupique, grinnel), or no more than TWO MEALS PER MONTH black crappie or redear sunfish combined, or no more than ONE MEAL PER MONTH of freshwater drum, largemouth bass or spotted bass combined, from the advisory area. Other adults and children seven years of age and older should consume no more than THREE MEALS PER MONTH of freshwater drum, or no more than TWO MEALS PER MONTH of bowfin from the advisory area.
Area	From headwater to confluence with Sabine River - 10.6 miles
Date Established	Issued: 02/11/2009

Water Quality

The lower Sabine River has three designated uses over its entirety; primary contact recreation (swimming), secondary contact recreation (boating), and fish and wildlife propagation. The 2012 LDEQ Water Quality Integrated Report indicates that all segments are fully supporting their designated uses. The complete report can be viewed on LDEQ's website at: http://www.deq.louisiana.gov/portal/DIVISIONS/WaterPermits/WaterQualityStandardsAssessment/WaterQualityInventorySection305b/2012IntegratedReport.aspx

Water Levels

Water level data (Tables 5 and 6) was provided by the United States Geological Survey (USGS) and can be found at the following website: http://waterdata.usgs.gov/la/nwis/current/?type=flow

Table 5. Mean annual discharge in cubic feet per second (cfs) by month for the Sabine River, Louisiana, from 1960-2013.

Station	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Burkeville TX	7800	8600	9810	7610	6990	4840	4060	3060	2830	1340	2440	5350
Bon Weir TX	9410	10600	11400	9140	8030	5710	4850	3570	3380	1950	3320	6740
Ruliff TX	11200	12300	12900	10600	9080	6890	5680	4120	4060	2860	4090	8080

Table 6. Mean monthly gage height for the Sabine River, Louisiana for all available years.

Station	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Years**
Burkeville TX	18.7	18.7	20.8	18.1	16.5	15.6	16.6	15.9	15.4	14.0	15.7	16.4	1996-2013
Bon Weir TX	18.3	18.6	18.9	18.3	17.1	16.5	16.5	16.5	15.2	15.2	16.7	17.1	2001-2013
Ruliff TX	19.5	20.0	19.8	20.0	19.1	19.1	19.4	18.9	18.0	16.6	17.0	18.0	1998-2013

SAMPLING

Historical/Recent Sampling

The Sabine River was first sampled by LDWF in 1989 after the development of the Louisiana Black Bass Management Plan. Electrofishing has been and continues to be the primary sampling tool used to evaluate sport fish populations in the river (Table 7). The big river standardized sampling program was developed in 2002 and fully implemented in 2003 (Table 8).

Table 7. Standardized sport fish and forage samples taken by year for each gear type on the lower Sabine River, LA, spring and fall electrofishing combined.

Year	Electrofishing Samples Sportfish	Electrofishing Samples Community Assemblage
1989	6	
1990	3	
1991	5	1
1992	4	1
1993	3	
1994	5	1
1995	3	
1996	6	1
1997	3	
1998	3	1
1999	7	1
2000	5	1
2001	4	1
2002	7	1
2003	8	1
2004	4	1
2005	4	
2006	7	1
2007	8	1
2008	8	1
2009	0	
2010	7	1
2011	8	4
2012	8	4
2013	8	4
Total	134	25

Table 8. Standardized big river samples taken by year for each gear type on the lower Sabine River, LA.

Year	Electrofishing	Gill Net	Hoop net	Haul Seine
2002	2		3	
2003	2	2	4	3
2004	4	2	5	6
2005		2	11	5
2006	2	2	5	6
2007		1	6	6
2008	2	2	6	4
2009	2		6	6
2010	2			6
2011	2			6
2012	2			12
2013	2		6	8
Total	20	11	52	68

Future Sampling

Table 9. Proposed Inland Fisheries scheduled samples on the lower Sabine River, LA.

2014	Electrofishing: 8-15 minutes samples (spring and fall); 4-225 second community assemblage samples (fall); water quality
2015	Electrofishing: 8-15 minutes samples (spring and fall); 4-225 second community assemblage samples (fall); water quality
2016	Electrofishing: 8-15 minutes samples (spring and fall); 4-225 second community assemblage (fall); water quality

Creel Surveys

No LDWF standardized recreational angler surveys have been conducted on the lower Sabine River.

Age & Growth

No age and growth samples have been collected on the lower Sabine River.

Stocking History

Relatively few fish stockings have occurred on the lower Sabine River. From 1997-2000, 38,344 paddlefish fingerlings were stocked as part of a joint TX/LA paddlefish restoration efforts (Table 10).

Table 10. Stocking history of the lower Sabine River, Louisiana.

Year	Bluegill	Paddlefish	Striped Bass
1993			158,878
1997		6,259	
1998		2,662	
1999		19,449	
2000		9,974	
2007	78,384		
Total	78,384	38,344	158,878

Genetic Analysis

No genetic analysis of the largemouth bass population has been performed on the lower Sabine River.

Lake Records

No waterbody specific records are maintained for the lower Sabine River.

SPECIES PROFILE

Fish Species Present

Table 11. Family, common, and scientific name of fishes collected or known to occur in Sabine River drainage, Louisiana and Texas.

Family	Scientific Name	Common Name
Petromyzontidae	*Ichthyomyzon castaneus*	Chestnut Lamprey
	Ichthyomyzon gagei	Brook Lamprey
Polyodontidae	*Polyodon spathula*	Paddlefish
Lepisosteidae	*Atractosteus spatula*	Alligator Gar
	Lepisosteus oculatus	Spotted Gar
	Lepisosteus osseus	Longnose Gar
Amiidae	*Amia calva*	Bowfin
Anguillidae	*Anguilla rostrata*	American Eel
Engraulidae	*Anchoa mitchilli*	Bay Anchovy
Clupeidae	*Alosa chrysochloris*	Skipjack Herring
	Brevoortia patronus	Gulf Menhaden
	Dorosoma cepedianum	Gizzard Shad
	Dorosoma petenense	Threadfin Shad
Cyprinidae	*Ctenopharyngodon idella*	Grass Carp (I)
	Cyprinella lutrensis	Red Shiner
	Cyprinella venusta	Blacktail Shiner
	Cyprinus carpio	Common Carp (I)

	Hybognathus hayi	Cypress Minnow
	Hybognathus nuchalis	Mississippi Silvery Minnow
	Hybopsis amnis	Pallid Shiner
	Lythrurus fumeus	Ribbon Shiner
	Lythrurus umbratilis	Redfin Shiner
	Macrhybopsis hyostoma	Shoal Chub
	Notemigonus crysoleucas	Golden Shiner
	Notropis atherinoides	Emerald Shiner
	Notropis atrocaudalis	Blackspot Shiner
	Notropis buchanani	Ghost Shiner
	Notropis chalybaeus	Ironcolor Shiner
	Notropis sabinae	Sabine Shiner
	Notropis texanus	Weed Shiner
	Notropis volucellus	Mimic Shiner
	Opsopoeodus emiliae	Pugnose Minnow
	Phenacobius mirabilis	Suckermouth Minnow
	Pimephales vigilax	Bullhead Minnow
	Semotilus atromaculatus	Creek Chub
Catostomidae	*Carpiodes carpio*	River Carpsucker
	Cycleptus elongatus	Blue Sucker
	Erimyzon oblongus	Creek Chubsucker
	Erimyzon sucetta	Lake Chubsucker
	Ictiobus bubalus	Smallmouth Buffalo
	Minytrema melanops	Spotted Sucker
	Moxostoma poecilurum	Blacktail Redhorse
Ictaluridae	*Ameiurus melas*	Black Bullhead
	Ameiurus natalis	Yellow Bullhead
	Ictalurus furcatus	Blue Catfish
	Ictalurus punctatus	Channel Catfish
	Noturus gyrinus	Tadpole Madtom
	Noturus nocturnus	Freckled Madtom
	Pylodictis olivaris	Flathead Catfish
Esocidae	*Esox americanus*	Grass Pickerel
	Esox niger	Chain Pickerel
Aphredoderidae	*Aphredoderus sayanus*	Pirate Perch
Atherinopsidae	*Labidesthes sicculus*	Brook Silverside
	Menidia beryllina	Inland Silverside
Fundulidae	*Fundulus blairae*	Western Starhead Topminnow
	Fundulus chrysotus	Golden Topminnow
	Fundulus grandis	Gulf Killifish
	Fundulus notatus	Blackstripe Topminnow

	Fundulus olivaceus	Blackspotted Topminnow
	Lucania parva	Rainwater Killifish
Poeciliidae	*Heterandria formosa*	Least Killifish
	Gambusia affinis	Western Mosquitofish
	Poecilia latipinna	Sailfin Molly
Cyprinodontidae	*Cyprinodon variegatus*	Sheepshead Minnow
Moronidae	*Morone chrysops*	White Bass
	Morone mississippiensis	Yellow Bass
	Morone saxatilis	Striped Bass (I)
Centrarchidae	*Centrarchus macropterus*	Flier
	Lepomis auritus	Redbreast Sunfish (I)
	Lepomis cyanellus	Green Sunfish
	Lepomis gulosus	Warhead
	Lepomis humilis	Orangespotted Sunfish
	Lepomis macrochirus	Bluegill
	Lepomis marginatus	Dollar Sunfish
	Lepomis megalotis	Longear Sunfish
	Lepomis microlophus	Redear Sunfish
	Lepomis miniatus	Redspotted Sunfish
	Lepomis symmetricus	Bantam Sunfish
	Micropterus punctulatus	Spotted Bass
	Micropterus salmoides	Largemouth Bass
	Pomoxis annularis	White Crappie
	Pomoxis nigromaculatus	Black Crappie
Percidae	*Ammocrypta vivax*	Scaly Sand Darter
	Ammocrypta clara	Western Sand Darter
	Etheostoma artesiae	Redspot Darter.
	Etheostoma chlorosomum	Bluntnose Darter
	Etheostoma gracile	Slough Darter
	Etheostoma histrio	Harlequin Darter
	Etheostoma parvipinne	Goldstripe Darter
	Etheostoma proeliare	Cypress Darter
	Etheostoma thompsoni	Gumbo Darter
	Percina macrolepida	Bigscale Logperch
	Percina sciera	Dusky Darter
	Percina shumardi	River Darter
Sciaenidae	*Aplodinotus grunniens*	Freshwater Drum
	Sciaenops ocellatus	Red Drum
Elassomatidae	*Elassoma zonatum*	Pygmy Sunfish
Mugilidae	*Mugil cephalus*	Striped Mullet
Paralichthyidae	*Paralichthys lethostigma*	Southern Flounder

Achiridae	*Trinectes maculatus*	Hogchoker

I= Introduced species

Mussel Species

Table 12. Freshwater mussel species known to occur in the Sabine River drainage, Louisiana; compiled by Vidrine 1993.

Scientific Name	Common Name
Amblema plicata	threeridge
Arcidens confragosus	rock-pocketbook
Anodonta suborbiculata	flat floater
Fusconaia askewi	Texas pigtoe
Fusconaia flava	Wabash pigtoe
Fusconaia lananensis	N/A
Glebula rotundata	round pearlshell
Lampsilis cardium	plain pocketbook
Lampsilis hydiana	Louisiana fatmucket
Lampsilis satura	plain pocketbook
Lampsilis teres	yellow sandshell
Lasmigona complanata	white heelsplitter
Leptodea fragilis	fragile papershell
Ligumia subrostrata	pondmussel
Megalonaias nervosa	washboard
Obliquaria reflexa	threehorn wartyback
Obvaria jacksoniana	southern hickorynut
Plectomerus dombeyanus	bankclimber
Pleurobema riddelli	Louisiana pigtoe
Potamilus amphichaenus	Texas heelsplitter
Potamilus purpuratus	bleufer
Potamilus ohiensis	pink papershell
Pyganodon grandis	giant floater
Quadrula apiculata	southern mapleleaf
Quadrula mortoni	western pimpleback
Quadrula nodulata	wartyback
Quadrula pustulosa	pimpleback
Quadrula quadrula	mapleleaf
Strophitus subvexus	southern creekmussel
Strophitus undulatus	squawfoot
Toxolasmus parvus	lilliput
Toxolasmus texasensis	Texas lilliput

Tritogonia verrucosa	pistolgrip
Truncilla donaciformis	fawnsfoot
Truncilla truncata	deertoe
Uniomerus declivus	tapered pondhorn
Utterbackia imbecillis	paper pondshell
Villosa lienosa	little spectaclecase

Threatened/Endangered/Exotic Species

No threatened or endangered fish species are found in the lower Sabine River basin. The following species are listed as species of conservation concern for the Sabine River drainage in LDWF's State Wildlife Action Plan (Lester et al. 2005):

Fish

Paddlefish, *Polyodon spathula*
Western Sand Darter, *Ammocrypta clara*
Bigscale Logperch, *Percina macrolepida*
Suckermouth Minnow, *Phenacobius mirabilis*
*American Eel, *Anguilla rostrata*
*Shoal Chub, *Macrhybopsis hyostoma*
*Ironcolor Shiner, *Notropis chalybaeus*
*Blue Sucker, *Cycleptus elongatus*
*Redspot Darter, *Etheostoma artesiae*
*Gumbo Darter, *Etheostoma thompsoni*

*Note: asterisks indicate species recommended for listing as species of conservation concern in 2014 State Wildlife Action Plan at the time of this writing.

Mussels

Sandbank Pocketbook, *Lampsilis satura*
Louisiana Pigtoe, *Pleurobema riddelli*
Southern Creekmussel, *Strophitus subvexus*
Texas Heelsplitter, *Potamilus amphichaenus*

Crustaceans

Calcasieu Painted Crawfish, *Orconectes blacki*
Kisatchie Painted Crawfish, *Orconectes maletae*
Twin Crawfish, *Procambarus geminus*

Reptiles

Alligator Snapping Turtle, *Macrochelys temminckii*
Mississippi Diamond-backed Terrapin, *Malaclemys terrapin pileata*
Sabine Map Turtle, *Graptemys pseudogeographica sabinae*

Non-native animal species observed in the lower Sabine River basin include grass carp, common carp, and Asiatic clams. Non-native aquatic plant species commonly found in the

basin include: hydrilla (*Hydrilla verticillata*), alligator weed (*Alternanthera philoxeroides*), water primrose (*Ludwigia spp*), water hyacinth (*Eichhornia crassipes*), common salvinia (*Salvinia minima)*, and giant salvinia (*S. molesta*).

WATER USE

Hunting

The lower Sabine River is utilized for waterfowl hunting. It is the sole access route to Sabine Island WMA (see above) where significant hunting effort occurs. It is also used for access to private lands adjacent to the river for deer, hog, waterfowl, and small game hunters.

Fishing

The lower Sabine River is utilized for freshwater recreational fishing. Spotted bass and bream (*Lepomis spp*.) are often targeted in the upper reaches of the river. Striped bass, hybrid striped bass, and white bass are often targeted near the Toledo Bend dam. Largemouth bass, catfishes, crappies, and bream are targeted in and around Sabine Island WMA. Limited commercial fishing occurs on the river, primarily targeting catfish species.

Trapping

The lower Sabine River was historically used for trapping; however, this use has declined.

Skiing

The lower Sabine River is not heavily utilized for water sports.

Swimming

The river is utilized for swimming along most of its length.

Irrigation

All water withdrawals from the lower Sabine River are regulated by the SRA. The SRA canal is the primary water withdrawal mechanism, providing almost 20 billion gallons of water annually to Lake Charles industries.

Navigation

The Sabine River comprises part of the Intracoastal Waterway for approximately 7.5 river miles. The river is used for commercial navigation to the city of Orange, TX.

REFERENCES

Lester, Gary D., S. G. Sorensen, P. L. Faulkner, C. S. Reid, and I. E. Maxit. 2005. Louisiana Comprehensive Wildlife Conservation Strategy. Louisiana Department of Wildlife and Fisheries. Baton Rouge. 455 pp.

Louisiana Department of Environmental Quality. 2012. Louisiana Water Quality Inventory: Integrated Report (305(b)/303(d)). Water Quality Management Division, Planning and Assessment Section, Baton Rouge, LA.

Vidrine, Malcolm. 1993. The Historical Distributions of Freshwater Mussels in Louisiana. Division of Sciences, Louisiana State University at Eunice, PO Box 1129 Eunice, La. 70535. 249pp.

Yeager, B. L. 1993. Dams. Pages 57 – 114. *In* C. F. Bryan and D. A. Rutherford, editors. Impacts on warmwater streams: Guidelines for evaluation. Southern Division, American Fisheries Society, Little Rock, Arkansas.

APPENDIX
(return to document)

Map of lower Sabine River with public boat ramps.