LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES

OFFICE OF FISHERIES
INLAND FISHERIES SECTION

PART VI -A
WATERBODY MANAGEMENT PLAN SERIES

CALCASIEU RIVER, LOUISIANA

LAKE HISTORY & MANAGEMENT ISSUES
CHRONOLOGY

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September 2014—Prepared by:
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LAKE HISTORY

GENERAL INFORMATION

The Calcasieu River is a western Gulf coastal plain river system originating in Vernon Parish, Louisiana. The river flows through Vernon, Rapides, Allen, Jefferson Davis, Cameron and Calcasieu Parishes. Historically, the river flowed through Calcasieu Lake in Cameron Parish with a small section below the lake emptying into the Gulf of Mexico. Currently, the main river flow bypasses Calcasieu Lake through the Calcasieu Ship Channel. The river is approximately 202 river miles in length, including the Calcasieu Ship Channel. From Hwy. 8 in Vernon Parish to the Allen Parish line, and from the confluence with the Whiskey Chitto Creek to Ward 8 Park in Calcasieu Parish, the river is a designated scenic stream as per Act 947 by the Louisiana legislature in 1988 (RS 56:1856).

Impoundment
There are two low-head dams on the Calcasieu River, and an earthen dam/tainter gate with ship lock (Appendix, Figures 4-6):

Name: None
Location: Allen parish outside of Oakdale (30.80767N, -92.68466W)
Purpose: Constructed in early 1960’s by Louisiana Department of Public Works (LDPW) for water supply and recreation.
Authority: Allen Parish

Name: None
Location: Allen parish outside of Kinder (30.51205N, -92.87115W)
Purpose: Constructed in early 1960’s by LDPW for water supply and recreation.
Authority: Allen Parish

Name: Saltwater Barrier
Location: Calcasieu parish outside of Westlake (30.25303N, -93.21842W)
Purpose: Constructed in 1968 to prevent saltwater intrusion further upstream.
Authority: Owned and operated by U.S. Army Corps of Engineers (USACE). An earthen dam blocks the old channel while tainter gate structures with boat lock are located in a man-made channel.

Watershed
The Calcasieu River basin is approximately 3,910 square miles (Appendix, Figure 3) and is bordered by the Sabine River basin to the west and the Mermentau River basin to the east. The river has several major tributaries (Table 1), some of which are designated as scenic streams. The portion of the river from Lake Charles to the Gulf of Mexico is subject to tidal influence.
Table 1. Major tributaries of the Calcasieu River, their length in miles, scenic river designation, and LDEQ water body codes.

<table>
<thead>
<tr>
<th>Waterbody Name</th>
<th>Length (River miles)</th>
<th>Scenic Stream</th>
<th>Waterbody Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cypress Bayou</td>
<td>15</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>Whiskey Chitto Creek</td>
<td>87</td>
<td>Yes</td>
<td>030501</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>030502</td>
</tr>
<tr>
<td>Barnes Creek</td>
<td>62</td>
<td>Yes</td>
<td>030601</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>030602</td>
</tr>
<tr>
<td>Bayou Serpent</td>
<td>37</td>
<td>No</td>
<td>030701</td>
</tr>
<tr>
<td>English Bayou</td>
<td>15</td>
<td>No</td>
<td>030702</td>
</tr>
<tr>
<td>West Fork Calcasieu</td>
<td>17</td>
<td>No</td>
<td>030801</td>
</tr>
<tr>
<td>River</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bayou Choupique</td>
<td>20</td>
<td>No</td>
<td>031001</td>
</tr>
</tbody>
</table>

Parishes/Location
Vernon, Rapides, Allen, Jefferson Davis, Calcasieu, and Cameron Parishes.

Ownership
The Calcasieu River and its listed tributaries (Table 1) are owned by the State of Louisiana. The laws governing the natural and Scenic River systems regulate some land practices along the river and also protect the river from hydrologic alterations. The Louisiana Department of Wildlife & Fisheries (LDWF) manages the fish and wildlife resources.

Waterway Commission
No waterway commission exists for the Calcasieu River system. The USACE is responsible for channel maintenance of the Calcasieu Ship Channel, and operations of the lock at the saltwater barrier.

Private Organizations
None

PUBLIC ACCESS

Boat Ramps
There are 11 public boat ramps on the Calcasieu River (Table 2), see Appendix for maps.
Table 2. List of Calcasieu River public boat launches by parish with location information.

<table>
<thead>
<tr>
<th>Parish</th>
<th>Ramp</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allen</td>
<td>State Hwy. 26</td>
<td>30.639804</td>
<td>-92.814404</td>
</tr>
<tr>
<td></td>
<td>State Hwy. 10</td>
<td>30.822352</td>
<td>-92.684999</td>
</tr>
<tr>
<td></td>
<td>Interstate 10</td>
<td>30.237448</td>
<td>-93.239034</td>
</tr>
<tr>
<td></td>
<td>Ward 8/White Oak Park</td>
<td>30.296463</td>
<td>-93.117832</td>
</tr>
<tr>
<td></td>
<td>Theriot Road</td>
<td>30.298961</td>
<td>-93.188241</td>
</tr>
<tr>
<td></td>
<td>Riverside Park</td>
<td>30.252909</td>
<td>-93.245048</td>
</tr>
<tr>
<td></td>
<td>Salt Water Barrier</td>
<td>30.254315</td>
<td>-93.218027</td>
</tr>
<tr>
<td></td>
<td>Fitzenreiter Rd</td>
<td>30.26553</td>
<td>-93.197635</td>
</tr>
<tr>
<td></td>
<td>Calcasieu Point (saltwater)</td>
<td>30.10412</td>
<td>-93.30651</td>
</tr>
<tr>
<td>Calcasieu</td>
<td>Cameron Ferry (saltwater)</td>
<td>29.80452</td>
<td>-93.34931</td>
</tr>
<tr>
<td></td>
<td>Calcasieu Jetty (saltwater)</td>
<td>29.76788</td>
<td>-93.34195</td>
</tr>
</tbody>
</table>

**Boat Docks**

Boat docks are available at the following ramps:
- Ward 8/White Oak Park
- Theriot Rd.
- Riverside Park
- Fitzenreiter Rd.
- Calcasieu Point
- Calcasieu Jetty

**Piers**

- Riverside Park
- Cameron Recreation Center (saltwater)

**State/Federal facilities**

There are no state facilities on the Calcasieu River; however Sam Houston Jones State Park is located on the Calcasieu West Fork near the Calcasieu River. The USACE Saltwater Barrier is located just upstream of Lake Charles. A portion of the Sabine National Wildlife Refuge is located on the west bank of the Calcasieu Ship Channel.

**SHORELINE DEVELOPMENT**

**State/National Parks**

There are no state or federally owned parks on the main stem Calcasieu River, however Sam Houston Jones State Park is located on the West Fork of the Calcasieu River.

**Shoreline Development by Landowners**

The shoreline in and around the city of Lake Charles is heavily developed with many homes, camps, industrial, and commercial facilities. Downstream of Lake Charles to Calcasieu Lake is
heavily industrialized by the petrochemical industry. Upstream of Lake Charles, development becomes less pronounced until Ward 8/White Oak Park where the scenic stream designation begins and greater than 90% of the corridor is undeveloped.

**PHYSICAL DESCRIPTION**

**Shoreline length**
Lower 15%: Approximately 26 river miles  
Mid 15%: Approximately 37 river miles  
Upper 70%: Approximately 139 river miles

**Timber type**
Lower 15%: N/A, riparian habitat consists primarily of coastal marsh.  
Mid 15%: Coastal marsh, cypress/tupelo swamp, bottomland hardwoods.  
Upper 70%: River birch, sycamore, cypress, mixed pine/hardwood, commercial pine plantation.

**Average depth**
Lower 15%: 35’  
Mid 15%: 25’  
Upper 70%: 5’

**Maximum depth**
Lower 15%: 50’  
Mid 15%: 50’  
Upper 70%: 25’

**Natural seasonal water fluctuation**
Lower 15%: -1.0’-3.0’  
Mid 15%: -0.5’-6.0’  
Upper 70%: 1.0’-15.0’

**Events/Problems**

*Saltwater intrusion/coastal erosion:*
The original Calcasieu Ship Channel was constructed for navigation by the Army Corps of Engineers in the 1920’s. This channel has been modified and expanded several times in the last century with the most recent modification (deepening) completed in 1968. This channel provides ready access for large ships to the Port of Lake Charles; however it has significantly changed the hydrology of the lower river by allowing ingress of high salinity water.

*Industrialization:*
Lake Charles and its port are a major center of the petrochemical industry. Historic pollution prior to the implementation of the Clean Water Act is still a concern in the system and the seafood/finfish in the estuary are monitored for health hazards (Table 6).

*Sand mining:*
Historically, the Calcasieu River was mined for sand and gravel. Since the inclusion of a
significant portion of the river into the scenic streams program, these activities are conducted on private lands outside the main river channel, and are generally no longer an environmental concern on the river.

**Oil Spill/Chemical Releases:**
While regular releases from industry on the river are regulated by Louisiana Department of Environmental Quality (LDEQ) and the United States Environmental Protection Agency (EPA), accidental spills and emergency releases are still of concern. In 2006, Citgo Co. had an accidental release of an estimated 25,000 barrels of waste oil (Per. Comm. Kevin Natali, LDEQ) from their facility below Lake Charles. This resulted in a temporary closure of fishing/boating from Lake Charles to the Gulf of Mexico. The spill was contained and cleaned with no documented long term effects on fisheries.

**Hurricanes:**
The Calcasieu 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

Aquatic vegetation problems are concentrated on the middle section of the river in the Lake Charles area. This is where the river widens and peak (freshwater) public usage occurs. In the upper section river flows generally prevent problematic vegetation from accruing, and in the lower section high salinities kill infestations. In the middle section, nuisance plants concentrate in open bays and bayous. LDWF control efforts are directed primarily at these areas. Private swamps adjacent to the river provide nursery habitat.

**Biomass**

No biomass sampling has been conducted for nuisance aquatic vegetation in the Calcasieu River. Estimated acreages of aquatic vegetation on public waterways are as follows:

- **Estimated for fall 2014:**
  - Common salvinia (100 acres)
  - Giant Salvinia (20 acres)
  - Alligator weed (200 acres)
  - Water Hyacinth (200 acres)

- **Predicted for fall 2015:**
  - Common salvinia (100 acres)
  - Giant Salvinia (50 acres)
  - Alligator weed (200 acres)
  - Water Hyacinth (200 acres)

**Biological**

In fall 2012, approximately 4,000 giant salvinia weevils were stocked at three release sites in infested backwater areas. In 2013, 18 sites were stocked with an estimated 22,200 weevils by LDWF. Four of these 18 sites were stocked again in 2014. Giant salvinia coverage at 12 stocked sites had significant reductions (>90%). No herbicide treatments were conducted at these locations, and with no other apparent contributing factors, this control is attributed to weevil activity. No appreciable reductions in salvinia biomass have been observed at the remaining 6 sites, however weevil damaged salvinia has been noted at these locations. While not quantifiable, it is likely that weevil activity in these locations has helped to prevent the expansion of salvinia in these areas. More time may be required at these locations for weevils to achieve significant reductions in total salvinia biomass. Additionally, weevil damage has been documented on common salvinia at all stocking sites where it is present.
**Chemical**

Traditional control measures for aquatic vegetation in this area involve using spray herbicides. In 2009, giant salvinia was discovered in the watershed and sprayers used diquat (0.75 gal/acre) herbicide as a control (Table 1). Plant problems and spray efforts are concentrated in the slack-water bays and canals.

Herbicide selection and application rates are in accordance with the approved LDWF Aquatic Herbicide Recommendations. Historically, water hyacinth and alligator weed were 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 (0.75 gal/acre) and diquat (0.25 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz/acre) surfactants. Alligator weed is treated with imazapyr at 0.5 gal/acre with Turbulence (0.25 gal/acre) surfactant.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Treatments*</th>
<th>Acres Treated</th>
<th>Primary Vegetation Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>9</td>
<td>113</td>
<td>Water Hyacinth, Alligator weed</td>
</tr>
<tr>
<td>2007</td>
<td>2</td>
<td>16</td>
<td>Alligator weed, Water Hyacinth</td>
</tr>
<tr>
<td>2008</td>
<td>11</td>
<td>208</td>
<td>Water Hyacinth, Alligator weed, Common Salvinia</td>
</tr>
<tr>
<td>2009</td>
<td>35</td>
<td>640</td>
<td>Common Salvinia, Water Hyacinth, Giant Salvinia, Alligator weed</td>
</tr>
<tr>
<td>2010</td>
<td>5</td>
<td>134</td>
<td>Water Hyacinth, Giant Salvinia, Alligator weed, Common Salvinia</td>
</tr>
<tr>
<td>2011</td>
<td>16</td>
<td>460</td>
<td>Common Salvinia, Alligator weed, Water Hyacinth</td>
</tr>
<tr>
<td>2012</td>
<td>6</td>
<td>119</td>
<td>Giant Salvinia, Common Salvinia</td>
</tr>
<tr>
<td>2013</td>
<td>15</td>
<td>331</td>
<td>Giant Salvinia</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
<td>79</td>
<td>Common Salvinia, Giant salvinia, Alligator weed,</td>
</tr>
</tbody>
</table>

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

**Physical**

During dry conditions, salinities can reach levels high enough to slow growth rates or kill plants in some areas.

**Type map**

There is no type map available for the Calcasieu River.

**HISTORY OF FISHING REGULATIONS**

**Recreational**

The Calcasieu River was historically, and is currently, managed under statewide length and creel limits. Current Louisiana fishing regulations can be found at:

[http://www.wlf.louisiana.gov/regulations](http://www.wlf.louisiana.gov/regulations)
Recreational hoop and wire nets are prohibited below the Intracoastal Waterway (designated saltwater zone).

**Commercial**
The Calcasieu River was historically, and is currently, managed under statewide regulations. Current Louisiana commercial fishing regulations can be found at:

http://www.wlf.louisiana.gov/regulations

Gill nets, seines, and trammel nets are prohibited below the Intracoastal Waterway (designated saltwater zone).

**FISH KILLS / DISEASE HISTORY**

**Fish Kills**
In September 2005, Hurricane Rita made landfall in Cameron Parish. The resulting anoxic conditions caused massive fish kills along the entire river system to above U.S. Hwy. 190 in Allen Parish. Dissolved oxygen (DO) levels below 1.0ppm at the Saltwater Barrier were observed up to four weeks after the storm (Figure 1). Based on standardized sampling results in November 2005, LDWF personnel estimated more than 95% of all freshwater finfish in the middle section of the river were killed. Population recovery, according to LDWF standardized sampling, was rapid, with record catch-per-unit effort (CPUE) of largemouth bass documented just one year later in fall 2006.

![Calcasieu River Dissolved Oxygen Levels 2005](image)

**Figure 1.** Dissolved oxygen readings recorded at multiple stations on the Calcasieu River from 3
to 15 weeks after Hurricane Rita in 2005.

In September 2008, Hurricane Ike made landfall near Galveston Texas. Recorded storm surges in Cameron Parish from this event were even higher than those for Rita. This caused massive flooding of the Calcasieu River system and Cameron Parish. Fish kills from this event were not as severe or widespread as kills resulting from Rita. No anoxic conditions were observed at ten days post hurricane (Figure 2).

![Calcasieu River Dissolved Oxygen Levels 2008](image)

**Figure 2.** Dissolved oxygen readings recorded at multiple stations on the Calcasieu River at 3 days and 10 days after Hurricane Ike in 2008.

**Disease History**
In 2002, 11 largemouth bass were sampled for the presence of largemouth bass virus (LMBV). Three fish (27.3%) tested positive for LMBV. No disease related fish kills have been documented in the Calcasieu River.

**CONTAMINANTS / POLLUTION**

**Contaminants/pollution**
The following fish consumption advisories (Tables 5 and 6) 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-%2002-18-09.pdf
Table 5. Mercury fish consumption advisory for the Calcasieu River system as of 2014.

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Contaminants</th>
<th>Advisory Type</th>
<th>Recommendations</th>
<th>Area</th>
<th>Date Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcasieu River Drainage Basin</td>
<td>Mercury</td>
<td>Advisory fish consumption</td>
<td>Women of childbearing age and children less than seven years of age SHOULD NOT CONSUME largemouth bass, freshwater drum, or bowfin (choupique, grinnel) from the advisory area. Other adults and children seven years of age and older should consume no more than TWO MEALS PER MONTH of largemouth bass, freshwater drum, and bowfin (choupique, grinnel) combined from the advisory area. Unless the fish species is specifically addressed in the details of the advisory, please limit consumption of all species in an advisory area to FOUR MEALS PER MONTH.</td>
<td>The Calcasieu River from Hwy 26 to the Saltwater Barrier north of Lake Charles, the West Fork Calcasieu River, Houston River, Hickory Creek, Beckwith Creek, English Bayou, and Little River.</td>
<td>Issued: 11/20/00 Revised: 5/29/03 and 7/1/04</td>
</tr>
<tr>
<td>LA030103_00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA030201_00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>LA030801_00</td>
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<td>LA030806_00</td>
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<td>LA030802_00</td>
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<td>LA030803_00</td>
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<td>LA030804_00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Organic chemical fish consumption advisory for lower Calcasieu River system as of 2014.

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Contaminants</th>
<th>Advisory Type</th>
<th>Recommendations</th>
<th>Size</th>
<th>Date Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcasieu River, Estuary to Gulf of Mexico</td>
<td>Hexachlorobenzene, Hexachloro-1,3-butadiene, PCBs</td>
<td>Informational advisory fish contamination</td>
<td>Caution advised on fish consumption due to low levels of chemical contamination.</td>
<td>37.0 miles</td>
<td>Issued: 04/07/92 Revised: 10/94 and 1995</td>
</tr>
<tr>
<td>LA030301_00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA030304_00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA030401_00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Water Quality**
The Calcasieu River has three designated uses over its entirety: primary contact recreation (swimming), secondary contact recreation (boating), and fish and wildlife propagation. Other uses designated on certain segments include; agriculture and outstanding natural resource waters. The 2012 LDEQ Water Quality Integrated Report indicates that 2 of 6 segments are not fully supporting primary contact recreation, and 1 of 6 segments is not supporting secondary contact.
recreation. Suspected impairments for these segments are fecal coliforms attributed to natural sources. No (0 of 6) segments on the main stem Calcasieu are fully supporting fish and wildlife propagation. Suspected impairments include; contaminants (i.e. lead and mercury, Tables 5 and 6), low pH (naturally occurring), and turbidity resulting from agriculture..

It is important to note that LDEQ designated uses are categorized as either fully supported or not supported. The degree of impairment and its effects on fisheries is not quantified in the report. The complete report can be viewed on LDEQ’s website at:


**Water Levels**

Water level data (Tables 7 and 8) 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 7. Mean discharge in cubic feet per second (cfs) by month for the Calcasieu River, Louisiana, from 1944-2013.

<table>
<thead>
<tr>
<th>Station</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenmora</td>
<td>1449</td>
<td>1594</td>
<td>1276</td>
<td>1038</td>
<td>888</td>
<td>354</td>
<td>242</td>
<td>130</td>
<td>180</td>
<td>263</td>
<td>558</td>
<td>1070</td>
</tr>
<tr>
<td>Oberlin</td>
<td>2012</td>
<td>2290</td>
<td>1934</td>
<td>2000</td>
<td>1428</td>
<td>537</td>
<td>437</td>
<td>215</td>
<td>330</td>
<td>424</td>
<td>745</td>
<td>1495</td>
</tr>
<tr>
<td>Kinder</td>
<td>4334</td>
<td>4758</td>
<td>3901</td>
<td>3297</td>
<td>3309</td>
<td>1612</td>
<td>1307</td>
<td>749</td>
<td>910</td>
<td>1200</td>
<td>1702</td>
<td>3528</td>
</tr>
</tbody>
</table>

Table 8. Mean gage height in feet by month for the Calcasieu River, Louisiana for all available years.

<table>
<thead>
<tr>
<th>Station</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
<th>YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glenmora</td>
<td>9.5</td>
<td>10.8</td>
<td>10.0</td>
<td>8.7</td>
<td>6.8</td>
<td>6.0</td>
<td>6.0</td>
<td>5.1</td>
<td>5.7</td>
<td>6.0</td>
<td>7.0</td>
<td>8.8</td>
<td>1997-2014</td>
</tr>
<tr>
<td>Oberlin</td>
<td>7.4</td>
<td>8.1</td>
<td>7.1</td>
<td>6.3</td>
<td>4.7</td>
<td>3.4</td>
<td>3.5</td>
<td>2.4</td>
<td>2.8</td>
<td>3.0</td>
<td>3.4</td>
<td>5.5</td>
<td>1989-2013</td>
</tr>
<tr>
<td>Kinder</td>
<td>9.0</td>
<td>9.7</td>
<td>8.7</td>
<td>7.3</td>
<td>6.1</td>
<td>4.7</td>
<td>4.1</td>
<td>3.1</td>
<td>3.5</td>
<td>3.6</td>
<td>4.7</td>
<td>7.6</td>
<td>1966-2013</td>
</tr>
<tr>
<td>Lake Charles</td>
<td>0.8</td>
<td>1.1</td>
<td>1.1</td>
<td>1.4</td>
<td>1.5</td>
<td>1.4</td>
<td>1.3</td>
<td>1.2</td>
<td>1.7</td>
<td>1.6</td>
<td>1.2</td>
<td>0.8</td>
<td>2001-2013</td>
</tr>
</tbody>
</table>
**SAMPLING**

**Historical/Recent Sampling**
The Calcasieu 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 9). In 2002, the big river standardized sampling program was developed and fully implemented in 2003. Electrofishing, gill nets, hoop nets, and seines were utilized from 2003-2009 (Table 10). Netting was discontinued in 2010.

Table 9. Historical standardized sport fish and forage samples taken by year for each gear type on the Calcasieu River, LA, spring and fall electrofishing combined.

<table>
<thead>
<tr>
<th>Year</th>
<th>Electrofishing Effort-Sportfish</th>
<th>Electrofishing Effort-Forage</th>
<th>25 Foot Haul Seine</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1992</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>7</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>129</strong></td>
<td><strong>32</strong></td>
<td><strong>5</strong></td>
</tr>
</tbody>
</table>
Table 10. Historical standardized big river samples taken by year for each gear type on the Calcasieu River, LA.

<table>
<thead>
<tr>
<th>Year</th>
<th>Electrofishing</th>
<th>Gill Net</th>
<th>Hoop net</th>
<th>Haul Seine</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>6</td>
<td>6</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>2004</td>
<td>6</td>
<td>6</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>2005</td>
<td>7</td>
<td>6</td>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>2006</td>
<td>6</td>
<td>6</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td>2007</td>
<td>4</td>
<td>4</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>2008</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>2009</td>
<td>4</td>
<td>3</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>2010</td>
<td>6</td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>2012</td>
<td>6</td>
<td></td>
<td></td>
<td>31</td>
</tr>
<tr>
<td>2013</td>
<td>4</td>
<td></td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
<td><strong>35</strong></td>
<td><strong>75</strong></td>
<td><strong>194</strong></td>
</tr>
</tbody>
</table>

**Future Sampling**

Table 11. Future sampling planned on the Calcasieu River, LA.

<table>
<thead>
<tr>
<th>Year</th>
<th>Electrofishing</th>
<th>Seines</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>Electrofishing: 8-15 minutes samples (spring and fall); 4-225 second forage samples (fall); 2-15 minute river samples (summer). Seines: 8-10 foot seine hauls (summer)</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>Electrofishing: 8-15 minutes samples (spring and fall); 4-225 second forage samples (fall); 2-15 minute river samples (summer). Seines: 8-10 foot seine hauls (summer)</td>
<td></td>
</tr>
</tbody>
</table>

**Creel Surveys**

An LDWF standardized recreational angler survey was conducted over a 12-month period in 2013. A total of 247 interviews were conducted over this time period, with an estimated 6,460 anglers catching 9,028 LMB, of which 7,380 (81.7%) were released. Detailed analyses of recreational angler surveys are discussed further in Part B.

**Age & Growth**

Largemouth bass otoliths were collected during standardized sampling in 1990, 2000, and 2007. Otoliths were also collected as part of the standardized LMB population assessment from 2012 through 2014. The results of this assessment should be available in 2015.

**Genetic Analysis**

Genetic analyses were conducted as part of the standardized LMB population assessment from 2012-2014. Available results of these analyses are found in Table 12.

Table 12. Recent genetic analyses for Calcasieu River, LA largemouth bass population 2012–2013.
<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Northern</th>
<th>Florida</th>
<th>Hybrid</th>
<th>Florida Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>131</td>
<td>115</td>
<td>0</td>
<td>16</td>
<td>12.2%</td>
</tr>
<tr>
<td>2013</td>
<td>126</td>
<td>113</td>
<td>0</td>
<td>13</td>
<td>10.3%</td>
</tr>
</tbody>
</table>

**Stocking History**
Relatively few stockings have been conducted on the Calcasieu River. This is primarily due to good natural recruitment making stocking efforts extraneous and inefficient. The exception to this is striped bass, where LDWF stocked over two million fingerlings and fry from 1994-2000 (Table 12). The primary goal of these stockings was to establish and maintain a viable sport fishery for striped bass. Because striped bass do not naturally occur and do not reproduce in the Calcasieu River, multiple stockings were needed to maintain this fishery. Due to low public acceptance, these stockings have been discontinued. Excess hatchery reared hybrid striped bass were stocked in 2010, with anglers successfully catching and harvesting limits of these fish. Because of the success and enjoyment of this stocking, hybrid striped bass are requested for stocking annually.

**Table 12. Stocking history of the Calcasieu River, Louisiana.**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>BLUEGILL</th>
<th>CHANNEL CATFISH</th>
<th>NORTHERN LARGEMOUTH BASS</th>
<th>STRIPED BASS</th>
<th>HYBRID STRIPED BASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td></td>
<td></td>
<td></td>
<td>1,447,110</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
<td></td>
<td>176,261</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td></td>
<td>16,500</td>
<td></td>
<td>1,154,404</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
<td></td>
<td>150,208</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
<td></td>
<td>76,520</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
<td></td>
<td></td>
<td>16,520</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
<td>137,692</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td>13,650</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>73,008</td>
<td>50,928</td>
<td></td>
<td></td>
<td>74,140</td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>99,797</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>73,008</td>
<td>67,428</td>
<td>13,650</td>
<td>2,070,215</td>
<td>173,937</td>
</tr>
</tbody>
</table>

**Lake Records**
No waterbody specific records are maintained for the Calcasieu River.
### SPECIES PROFILE

**Fish Species Present**

Table 13. Fish species collected in the Calcasieu River drainage, Louisiana. Compiled by Conner, Suttkus, Thompson, & Reed (2008). Estuarine species are included.

<table>
<thead>
<tr>
<th>Family, Scientific and Common Names</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Petromyzontidae - lampreys {2}</strong></td>
</tr>
<tr>
<td><em>Ichthyomyzon castaneus</em> Girard, 1858 - chestnut lamprey</td>
</tr>
<tr>
<td><em>Ichthyomyzon agei</em> Hubbs and Trautman, 1937 - southern brook lamprey</td>
</tr>
<tr>
<td><strong>Carcharhinidae - requiem sharks {1}</strong></td>
</tr>
<tr>
<td><em>Carcharhinus leucas</em> (Muller and Henle, 1839) - bull shark</td>
</tr>
<tr>
<td><strong>Dasyatidae - whiptail stingrays {1}</strong></td>
</tr>
<tr>
<td><em>Dasyatis sabina</em> (Lesueur, 1824) - Atlantic stingray</td>
</tr>
<tr>
<td><strong>Polyodontidae - paddlefishes {1}</strong></td>
</tr>
<tr>
<td><em>Polyodon spathula</em> (Walbaum, 1792) - paddlefish</td>
</tr>
<tr>
<td><strong>Lepisosteidae - gars {3}</strong></td>
</tr>
<tr>
<td><em>Atractosteus spatula</em> (Lacepede, 1803) - alligator gar</td>
</tr>
<tr>
<td><em>Lepisosteus oculatus</em> Winchell, 1864 - spotted gar</td>
</tr>
<tr>
<td><em>Lepisosteus osseus</em> (Linnaeus, 1758) - longnose gar</td>
</tr>
<tr>
<td><strong>Amiidae - bowfin {1}</strong></td>
</tr>
<tr>
<td><em>Amia calva</em> Linnaeus, 1766 - bowfin</td>
</tr>
<tr>
<td><strong>Elopidae - tenpounders {1}</strong></td>
</tr>
<tr>
<td><em>Elops saurus</em> Linnaeus, 1766 - ladyfish</td>
</tr>
<tr>
<td><strong>Megalopidae - tarpons {1}</strong></td>
</tr>
<tr>
<td><em>Megalops atlanticus</em> Valenciennes, 1847 - tarpon</td>
</tr>
<tr>
<td><strong>Anguillidae - freshwater eels {1}</strong></td>
</tr>
<tr>
<td><em>Anguilla rostrata</em> (Lesueur, 1817) - American eel</td>
</tr>
<tr>
<td><strong>Ophichthidae - snake eels {1}</strong></td>
</tr>
<tr>
<td><em>Myrophis punctatus</em> Lutken, 1852 - speckled worm eel</td>
</tr>
<tr>
<td><strong>Engraulidae - anchovies {2}</strong></td>
</tr>
<tr>
<td><em>Anchoa hepsetus</em> (Linnaeus, 1858) - striped anchovy</td>
</tr>
<tr>
<td><em>Anchoa mitchilli</em> (Valenciennes, 1848) - bay anchovy</td>
</tr>
<tr>
<td><strong>Clupeidae - herrings {4}</strong></td>
</tr>
<tr>
<td><em>Alosa chrysochloris</em> (Rafinesque, 1820) - skipjack herring</td>
</tr>
<tr>
<td><em>Brevoortia patronus</em> Goode, 1878 - Gulf menhaden</td>
</tr>
<tr>
<td><em>Dorosoma cepedianum</em> (Lesueur, 1818) - gizzard shad</td>
</tr>
<tr>
<td><em>Dorosoma petenense</em> (Guenthur, 1867) - threadfin shad</td>
</tr>
<tr>
<td><strong>Cyprinidae - carps and minnows {20}</strong></td>
</tr>
<tr>
<td><em>Carassius auratus</em> (Linnaeus, 1758) – goldfish [Introduced]</td>
</tr>
<tr>
<td><em>Cyprinus carpio</em> Linnaeus, 1758 - common carp [Introduced]</td>
</tr>
<tr>
<td><em>Cyprinella lutrensis</em> (Baird and Girard, 1853) - red shiner</td>
</tr>
<tr>
<td><em>Cyprinella venusta</em> Girard, 1856 - blacktail shiner</td>
</tr>
<tr>
<td><em>Hybognathus hayi</em> Jordan, 1885 - cypress minnow</td>
</tr>
</tbody>
</table>
**Catostomidae** - suckers {8}

- *Carpiodes carpio* (Rafinesque, 1820) - river carpsucker
- *Erimyzon claviformis* (Girard, 1856) - western creek chubsucker
- *Erimyzon sucetta* (Lacepede, 1803) - lake chubsucker
- *Ictiobus bubalus* (Rafinesque, 1818) - smallmouth buffalo
- *Ictiobus cyprinellus* (Valenciennes, 1844) - bigmouth buffalo
- *Ictiobus niger* (Rafinesque, 1819) - black buffalo
- *Minytrema melanops* (Rafinesque, 1820) - spotted sucker
- *Moxostoma texanum* (Jordan and Gilbert, 1886) - blacktail redhorse

**Ictaluridae** - North American catfishes {8}

- *Ameiurus melas* (Rafinesque, 1820) - black bullhead
- *Ameiurus natalis* (Lesueur, 1819) - yellow bullhead
- *Ictalurus furcatus* (Lesueur, 1840) - blue catfish
- *Ictalurus punctatus* (Rafinesque, 18180) - channel catfish
- *Noturus gyrinus* (Mitchill, 1817) - tadpole madtom
- *Noturus nocturnus* Jordan and Gilbert, 1886 - freckled madtom
- *Noturus phaeus* Taylor, 1969 - brown madtom [record of *funebris* may be this species]
- *Pylodictis olivaris* (Rafinesque, 1818) - flathead catfish

**Ariidae** - sea catfishes {2}

- *Ariopsis felis* (Linnaeus, 1766) - hardhead catfish
- *Bagre marinus* (Mitchill, 1815) - gafftopsail catfish

**Esocidae** - pikes {2}

- *Esox americanus* Gmelin, 1789 - redfin pickerel
- *Esox niger* Lesueur, 1818 - chain pickerel

**Synodontidae** - lizardfishes {1}

- *Synodus foetens* (Linnaeus, 1766) - inshore lizardfish

**Aphredoderidae** - pirate perch {1}

- *Aphredoderus sayanus* (Gilliams, 1824) - pirate perch

**Mugilidae** - mullets {2}

- *Mugil cephalus* Linnaeus, 1758 - striped mullet
- *Mugil curema* Valenciennes, 1836 - white mullet
<table>
<thead>
<tr>
<th>Family</th>
<th>Genus</th>
<th>Species Name</th>
<th>Author and Year</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atherinopsidae - New World silversides {3}</td>
<td>Labidesthes sicculus</td>
<td>(Cope, 1865) - brook silverside</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Membras martinica</td>
<td>(Valenciennes, 1835) - rough silverside</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Menidia beryllina</td>
<td>(Cope, 1867) - inland silverside</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belonidae - needlefishes {1}</td>
<td>Strongylura marina</td>
<td>(Walbaum, 1792) - Atlantic needlefish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundulidae - topminnows {9}</td>
<td>Adinia xenica</td>
<td>(Jordan and Gilbert, 1882) - diamond killifish</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundulus blairae</td>
<td>Wiley and Hall, 1975 - western starhead topminnow</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundulus chrysotus</td>
<td>(Gunther, 1866) - golden topminnow</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundulus grandis</td>
<td>Baird and Girard, 1853 - Gulf killifish</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundulus notatus</td>
<td>(Rafinesque, 1820) - blackstripe topminnow</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundulus olivaceus</td>
<td>(Storer, 1845) - blackspotted topminnow</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundulus pulvereus</td>
<td>(Evermann, 1892) - bayou killifish</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundulus similis</td>
<td>(Bird and Girard, 1853) - longnose killifish</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lucania parva</td>
<td>(Baird and Girard, 1855) - rainwater killifish</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poeciliidae - livebearers {3}</td>
<td>Gambusia affinis</td>
<td>(Baird and Girard, 1853) - western mosquitofish</td>
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<tr>
<td></td>
<td>Heterandria formosa</td>
<td>Agassiz, 1855 - least killifish [Introduced?]</td>
<td></td>
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<tr>
<td></td>
<td>Poecilia latipinna</td>
<td>Lesueur, 1821 - sailfin molly</td>
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<tr>
<td>Cyprinodontidae - pupfishes {1}</td>
<td>Cyprinodon variegatus</td>
<td>Lacepede, 1803 - sheepshead minnow</td>
<td></td>
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<tr>
<td>Syngnathidae - pipefishes {3}</td>
<td>Syngnathus affinis</td>
<td>Gunther, 1870 - Texas pipefish [unverified literature record]</td>
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<tr>
<td></td>
<td>Syngnathus louisianae</td>
<td>Gunther, 1870 - chain pipefish</td>
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<td></td>
<td>Syngnathus scovelli</td>
<td>Evermann and Kendall, 1896 - Gulf pipefish</td>
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<tr>
<td>Triglidae - searobins {1}</td>
<td>Prionotus tribulus</td>
<td>Cuvier, 1829 - bighead searobin</td>
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<tr>
<td>Moronidae - temperate basses {3}</td>
<td>Morone chrysops</td>
<td>(Rafinesque, 1820) - white bass [Introduced]</td>
<td></td>
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<tr>
<td></td>
<td>Morone mississippiensis</td>
<td>Jordan and Evermann, 1887 - yellow bass</td>
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<tr>
<td></td>
<td>Morone saxatilis</td>
<td>(Walbaum, 1792) - striped bass [Introduced]</td>
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<tr>
<td>Centrarchidae - sunfishes {14}</td>
<td>Centrarchus macropterus</td>
<td>(Lacepede, 1801) - flier</td>
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<tr>
<td></td>
<td>Lepomis auratus</td>
<td>(Linnaeus, 1758) - redbreast sunfish [Introduced]</td>
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<tr>
<td></td>
<td>Lepomis cyanellus</td>
<td>Rafinesque, 1819 - green sunfish</td>
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<tr>
<td></td>
<td>Lepomis gulosus</td>
<td>Cuvier, 1829 - warmouth</td>
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<tr>
<td></td>
<td>Lepomis humilis</td>
<td>Girard, 1858 - orangespotted sunfish</td>
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<tr>
<td></td>
<td>Lepomis macrochirus</td>
<td>Rafinesque, 1819 - bluegill</td>
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<tr>
<td></td>
<td>Lepomis marginatus</td>
<td>Holbrook, 1855 - dollar sunfish</td>
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<tr>
<td></td>
<td>Lepomis megalotis</td>
<td>Rafinesque, 1820 - longear sunfish</td>
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<tr>
<td></td>
<td>Lepomis microlepis</td>
<td>Gunther, 1859 - redear sunfish</td>
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<tr>
<td></td>
<td>Lepomis miniatus</td>
<td>Jordan, 1877 - redspotted sunfish</td>
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<tr>
<td></td>
<td>Lepomis symmetricus</td>
<td>Forbes, 1883 - bantam sunfish</td>
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<tr>
<td></td>
<td>Micropterus salmoides</td>
<td>(Lacepede, 1802) - largemouth bass</td>
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<tr>
<td></td>
<td>Micropterus punctulatus</td>
<td>Rafinesque, 1819 - spotted bass</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pomoxis annularis Rafinesque, 1818 - white crappie
Pomoxis nigromaculatus (Lesueur, 1829) - black crappie

Percidae - perches [13]
  Ammocrypta vivax Hay, 1882 - scaly sand darter
  Etheostoma asprigene (Forbes, 1877) - mud darter [may represent undescribed species]
  Etheostoma chlorosoma (Hay, 1880) - bluntnose darter
  Etheostoma collettei Birdsong and Knapp, 1969 - creole darter
  Etheostoma gracile (Girard, 1859) - slough darter
  Etheostoma histrio Jordan and Gilbert, 1887 - harlequin darter
  Etheostoma parvipinne Gilbert and Swain, 1887 - goldstripe darter [?]
  Etheostoma proeliare (Hay, 1880) - cypress darter
  Etheostoma whipplei (Girard, 1859) - redfin darter
  Percina macrolepida Stevenson, 1971 - bigscale logperch
  Percina maculata (Girard, 1859) - blackside darter
  Percina sciara (Swain, 1883) - dusky darter
  Percina shumardi (Girard, 1859) - river darter [literature record]

Carangidae - jacks [3]
  Caranx hippos (Linnaeus, 1766) - crevalle jack
  Oligoplites saurus (Bloch and Schneider, 1801) - leatherjacket
  Selene setapinnis (Mitchill, 1815) - Atlantic moonfish

Gerreidae - mojarras [?] [1]
  Eucinostomus argenteus Baird and Girard, 1855 - spotfin mojarra

Sparidae - porgies [2]
  Archosargus probatocephalus (Walbaum, 1792) - sheepshead
  Lagodon rhomboides (Linnaeus, 1766) - pinfish

Polynemidae - threadfins [1]
  Polydactylus octonemus (Girard, 1858) - Atlantic threadfin

Sciaenidae - drums and croakers [9]
  Bairdiella chrysoura (Lacepede, 1802) - silver perch
  Cynoscion arenarius Ginsburg, 1930 - sand seatrout
  Cynoscion nebulosus (Cuvier, 1830) - spotted seatrout
  Leiostomus xanthurus Lacepede, 1802 - spot
  Menticirrhus americanus (Linnaeus, 1758) - southern kingfish
  Micropogonias undulatus (Linnaeus, 1766) - Atlantic croaker
  Pogonias cromis (Linnaeus, 1766) - black drum
  Sciaenops ocellatus (Linnaeus, 1766) - red drum
  Stellifer lanceolatus (Holbrook, 1855) - star drum

Eleosomatidae - pygmy sunfish [1]
  Elassoma zonatum Jordan, 1877 - banded pygmy sunfish

Uranoscopidae - stargazers [1]
  Astroscopus y-graecum (Cuvier, 1829) - southern stargazer

Gobiesocidae - clingfishes [1]
  Gobiesox strumosus Cope, 1870 - skilletfish

Eleotridae - sleepers [1]
  Dormitator maculatus (Bloch, 1792) - fat sleeper

Gobiidae - gobies [5]
Ctenogobius boleosoma (Jordan and Gilbert, 1882) - darter goby
Ctenogobius shufeldti (Jordan and Eigenmann, 1887) - freshwater goby
Gobiosoma bosc (Lacepede, 1800) - naked goby
Microgobius gulosa (Girard, 1858) - clown goby
Microgobius thalassinus (Jordan and Gilbert, 1883) - green goby

Trichiuridae - cutlassfishes {1}
Trichiurus lepturus Linnaeus, 1758 - Atlantic cutlassfish

Scombridae - mackerels {1}
Scomberomorus maculatus (Mitchill, 1815) - Spanish mackerel

Paralichthyidae - sand flounders {3}
Citharichthys spiopterus Gunther, 1862 - bay whiff
Etropus crossoptus Jordan and Gilbert, 1882 - fringed flounder
Paralichthys lethostigma Jordan and Gilbert, 1884 - southern flounder

Achiridae - American soles {2}
Achirus lineatus (Linnaeus, 1758) - lined sole
Trinectes maculatus (Bloch and Schneider, 1801) - hogchoker

Cynoglossidae - tonguefishes {1}
Symphurus plagiusa (Linnaeus, 1766) - blackcheek tonguefish

Tetraodontidae - puffers {1}
Sphoeroides parvus Shipp and Yerger, 1969 - least puffer


Mussel Species

Table 14. Freshwater mussel species list for the Calcasieu River, Louisiana compiled by Vidrine 1993.

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyganodon grandis</td>
<td>giant floater</td>
</tr>
<tr>
<td>Strophitus subvexus</td>
<td>southern creekmussel</td>
</tr>
<tr>
<td>Amblema plicata</td>
<td>threeridge</td>
</tr>
<tr>
<td>Quadrula quadrula</td>
<td>mapleleaf</td>
</tr>
<tr>
<td>Quadrula mortoni</td>
<td>western pimpleback</td>
</tr>
<tr>
<td>Pleurobema riddelli</td>
<td>Louisiana pigtoe</td>
</tr>
<tr>
<td>Uniomerus declivus</td>
<td>tapered pondhorn</td>
</tr>
<tr>
<td>Glebula rotundata</td>
<td>round pearlshell</td>
</tr>
<tr>
<td>Lampsilis hydiana</td>
<td>Louisiana fatmucket</td>
</tr>
<tr>
<td>Leptodea fragilis</td>
<td>fragile papershell</td>
</tr>
<tr>
<td>Obliquaria reflexa</td>
<td>threehorn wartyback</td>
</tr>
<tr>
<td>Potamilus purpuratus</td>
<td>bleufer</td>
</tr>
<tr>
<td>Toxolasmus texasensis</td>
<td>Texas lilliput</td>
</tr>
<tr>
<td>Villosa lienosa</td>
<td>little spectaclecase</td>
</tr>
</tbody>
</table>
**Threatened/Endangered/Exotic Species**

No threatened or endangered fish species are found in the Calcasieu River basin. Endangered sea turtles (Loggerhead, Green, Atlantic Hawksbill, and Kemp’s Ridley) can be found along the lower river in the ship channel. The following species are listed as species of conservation concern in LDWF’s State Wildlife Action Plan (Lester et al. 2005):

Fish  
- Paddlefish, *Polyodon spathula*  
- Western Sand Darter, *Ammocrypta clara*  
- Bigscale Logperch, *Percina macrolepida*  

Mussels  
- Sandbank Pocketbook, *Lampsilis satura*  
- Louisiana Pigtoe, *Pleurobema riddelli*  
- Southern Creekmussel, *Strophitus subvexus*  

Crustaceans  
- Calcasieu Painted Crawfish, *Orconectes blacki*  
- Teche Painted Crawfish, *Orconectes hathawayi*  
- Old Prairie Crawfish, *Fallicambarus macneesei*  

Reptiles  
- Alligator Snapping Turtle, *Macrochelys temminckii*  
- Mississippi Diamond-backed Terrapin, *Malaclemys terrapin pileata*  

Exotic species observed in the Calcasieu River basin include grass carp, Asiatic clams, and occasional aquarium releases (pacu, Oscars).
WATER USE

Hunting
The Calcasieu River is utilized for waterfowl hunting. It is also used for access to private lands adjacent to the river for deer, hog, waterfowl, and small game hunters.

Fishing
The Calcasieu River is popular for both freshwater and saltwater recreational fishing. Spotted bass and bream (Lepomis spp.) are often targeted in the upper reaches of the river. Largemouth bass, catfishes, crappies, and freshwater drum are targeted in the middle portion. Spotted sea trout, southern flounder, and red drum are targeted species on the lower portion. Limited commercial fishing occurs on the middle and lower sections.

Trapping
The Calcasieu River was historically used for trapping. However this use has declined.

Skiing
The middle Calcasieu River is a popular destination for recreational boaters, skiers, and jet ski enthusiasts.

Scuba Diving
The Calcasieu River is not generally used for scuba diving.

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

Irrigation
Water withdrawals in designated scenic stream areas are by permit only. State laws regarding surface water withdrawals apply on all other segments. The portion of the river within Allen Parish is utilized for crop irrigation, particularly during drought periods.

Navigation
The stretch of river from US Hwy. 171 to the Gulf of Mexico is utilized by commercial vessels for transport of materials.
REFERENCES


Louisiana Department of Environmental Quality. 2010. Louisiana Water Quality Inventory: Integrated Report (305(b)/303(d)). Water Quality Management Division, Planning and Assessment Section, Baton Rouge, LA. pp.

Figure 3. Map of Louisiana waters with Calcasieu River basin delineated in green.
Figure 4. Map of upper Calcasieu River with public boat ramps and low-head dams.
Figure 5. Map of middle Calcasieu River with public boat ramps and lowhead dams.
Figure 6. Map of lower Calcasieu River with public boat ramps and fishing pier.