MAIN FILE

United States Department of the Interior

FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

November 17, 2008

Ms. Cheryl Sonnier Nolan
Assistant Secretary
Louisiana Dept. of Environmental Quality
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

Dear Ms. Nolan:

Please reference our March 22, 1996, Memorandum of Understanding (MOU) with the Louisiana Department of Environmental Quality (LDEQ) regarding federally listed threatened and endangered species, and the Louisiana Pollutant Discharge Elimination System (LPDES) program. In accordance with the terms of that MOU, the U.S. Fish and Wildlife Service (Service) is pleased to provide LDEQ with the enclosed current list of sensitive areas (i.e., waters deemed important for the conservation of threatened and endangered species).

In September 1996, our agencies developed an implementation strategy for the Scope-of-Work section of the subject MOU. That strategy (updated in February 1997, September 1997, September 1998, September 1999, October 2000, September 2001, September 2002, September 2003, September 2004, October 2005, September 2006, and October 2007) included a list of sensitive areas, types of permits, notices of intent (NOI), substances of concern, and listed species for which the Service has requested coordination. As we have done in the past, the Service intends to continue that implementation strategy (enclosed) for the upcoming federal fiscal year (October 2008 through September 2009). As discussed at our October 20, 2008, meeting, we have included updated sensitive areas for federally listed threatened and endangered species, and their critical habitats based on updated occurrence information. We have also enclosed some specific species information that should provide additional guidance in determining whether LDEQ should coordinate with the Service for certain permitted discharges to sensitive waterbodies.

The Service appreciates the continuing cooperation of LDEQ in the conservation of federally listed species. If you or your staff have any comments or require further information, please have them contact Ms. Brigette Firmin (337/291-3108) of this office.

Sincerely,

Brad S. Rieck
Deputy Supervisor
Louisiana Field Office

TAKE PRIDE IN AMERICA

Enclosures

cc: Ms. Linda Korn Levy, LDEQ-WQAD, Baton Rouge, LA
Mr. Gary Aydell, LDEQ, Baton Rouge, LA
Ms. Kim Cornelison, LDEQ, Baton Rouge, LA
Mr. Joe Holmes, LDEQ, Baton Rouge, LA
Ms. Tina Hendon, EPA, 6WQ-EW, Dallas, TX
LDWF, Natural Heritage Program, Baton Rouge, LA

2008-2009 Implementation Strategy for the
Louisiana Department of Environmental Quality
and the U.S. Fish and Wildlife Service
Memorandum of Understanding

Section II. Scope of Work

Section II.1 LDEQ and the Service will follow the procedures described in the MOU. The Service, by November 1, 2008, will provide LDEQ a list of all federally listed threatened and endangered species in Louisiana that are dependant on aquatic habitat. (Bolded species and/or subsegments are 2008-2009 additions:)

SPECIES	HYDROLOGIC SUBSEGMENTS
Alabama (= inflated) heelsplitter mussel	040302, 090201, 090202
Fat pocketbook mussel	070101, **070103**
Gulf sturgeon, critical habitat*	040102, 040103, 040301, 040302, 040303, 040304, 040305, 040401, 040402, 040501-040503, 040505, 040601, 040602, 040604, 040701-040704, 040801-040804, 040901, 040902, 040904, 040905, 040906, 040908, 040910, 041001, 041002, 041701, 041702, 041703, 041704, **041901**, 042001, 042003, 042201, **042202**, 042203-042206, **042207**, **042209**, **070601**, 090101-090107, 090201-090208, 090301, 090401, 090501, 090506 *See Addendum for additional information.
Louisiana pearlshell mussel	060208, 060209,101301, 101302
Louisiana quillwort	040804, 040904, 090501, 090506
Pallid sturgeon	010101, 010201, 010501, 010502, 010801-010803, 070101, **070103**, 070201, 070301, 070502, 100201
Pink mucket pearly mussel	080401, 080402
Ringed map (= sawback) turtle	090101-090107 (excluding 090104), 090201-090207, 090501

West Indian manatee	040302, **040401**, 040403, **040501**, **040502**, **040503**, 040601, 040602, **040702**, **040902**, **040904**, **040906**, **040908**, 040911, 041001, 041002, **041701**, **041703**, 041704, 042001, 042101, 042202

Section II.2 LDEQ and the Service will follow the procedures described in the MOU except that the Service will only request coordination on those permits that fall into one or more of the following seven categories:

1. The proposed permit occurs in a subset of sensitive waters defined as those subsegments where the following species occur, **and the regulated discharge contains one or more of the substances listed below:**

SPECIES	HYDROLOGIC SUBSEGMENTS
Alabama (= inflated) heelsplitter mussel	040302, 090201, 090202
Fat pocketbook mussel	070101, **070103**
Gulf sturgeon, critical habitat*	040102, 040103, 040301, 040302, 040303, 040304, 040305, 040401, 040402, 040501-040503, 040505, 040601, 040602, 040604, 040701-040704, 040801-040804, 040901, 040902, 040904, 040905, 040906, 040908, 040910, 041001, 041002, 041701, 041702, 041703, 041704, **041901**, 042001, 042003, 042201, **042202**, 042203-042206, **042207**, **042209**, **070601**, 090101-090107, 090201-090208, 090301, 090401, 090501, 090506 *See Addendum for additional information.
Louisiana pearlshell mussel	060208, 060209,101301, 101302
Louisiana quillwort	040804, 040904, 090501, 090506
Pallid sturgeon	010101, 010201, 010501, 010502, 010801-010803, 070101, **070103**, 070201, 070301, 070502, 100201
Pink mucket pearly mussel	080401, 080402

Ringed map (= sawback) turtle	090101-090107 (excluding 090104), 090201-090207, 090501
West Indian manatee	040302, **040401**, 040403, **040501**, **040502**, **040503**, 040601, 040602, **040702**, **040902**, **040904**, **040906**, **040908**, 040911, 041001, 041002, **041701**, **041703**, 041704, 042001, 042101, 042202

Substances

Endosulfan
Hexachlorobenzene
2,3,7,8-Tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)
Arsenic
Chromium III
Chromium VI
Zinc
Cadmium
Copper
Lead
Mercury
Nickel
Cyanide
Pentachlorophenol (PCP); or

2. The proposed permit is for **a major (i.e., flow of one million gallons per day or more) sanitary sewage treatment facility (not covered under a General Permit for Class I, II, III, or IV Sanitary Dischargers), and is located in the sensitive areas described in Section II.2.1**; or

3. The proposed permit is for a **landfill** (other than those covered under Construction/Demolition Debris and Woodwaste Landfill [LAG780000] and Municipal Solid Waste Landfill [LAG660000] General Permits) **and is located in the subset of sensitive areas described in Section II.2.1**; or

4. The proposed permit is for a **facility applying for coverage under the General Permit for Cement, Concrete, and Asphalt Facilities (LAG110000) and is located in the sensitive areas described in Section II.2.1**; or

5. The proposed permit is for an **electrical generating facility located in the sensitive areas described in Section II.2.1**; or

6. The proposed permit is for a **sand and gravel operation (including those applying for coverage under the General Permit for Sand and Gravel Extraction Facilities [LAG490000]) and is located in a subset of sensitive**

waters expected to support the Louisiana quillwort (subsegments 040804, 040904, 090501, 090506), the Alabama heelsplitter mussel, the Louisiana pearlshell mussel, the fat pocketbook mussel, the pink mucket pearly mussel, the Gulf sturgeon, the pallid sturgeon, or the ringed map turtle; or,

7. The proposed permit is for a **facility utilizing a cooling water intake structure that is regulated under §316(b) of the Clean Water Act and is located in the sensitive areas described in Section II.2.1.**

If a proposed permit falls into one or more of the above categories, the proposed discharge may affect a listed species and coordination should be initiated with the Service to: (1) determine if an adverse effect exists, and (2) explore ways to remove the effect.

Because hydrologic subsegments often cover large geographic areas, it is expected (for species with restricted distributions) that some proposed permits located in sensitive areas may not affect a species because the species is not actually present at that proposed discharge site. However, if an effect exists and that effect can be removed, a "not likely to adversely affect" determination will be made by LDEQ on the modified permit and submitted to the Service for concurrence. If no agreement can be reached between the Service and LDEQ, procedures for consulting with EPA as outlined in the MOU will be followed.

Based on LDEQ effluent limitations established for the protection of aquatic life and maintenance of the receiving waters as aquatic habitat, proposed permits not falling into those above-described categories are not likely to adversely affect listed species; therefore, no coordination with the Service is required. **Similarly, no further coordination with the Service is required for any permits (individual or general) that would be renewed under the LPDES program for which the Service has already reviewed and provided concurrence, as long as those permits do not contain any changes/modifications in permit limitations or more stringent limitations would be applied.**

Section II.3 LDEQ and the Service will follow the procedures described in the MOU. Based on effluent limitations established for the protection of aquatic life and maintenance of the receiving waters as aquatic habitat, the Service has determined that the following general permits are not likely to adversely affect listed species; and therefore, no coordination is required:

Automotive Facilities and/or Repair Shops (LAG470000)
C & D Landfills (LAG780000)
Concentrated Animal Feeding Operations (LAG010000)
Dewatering Petroleum Tanks (LAG300000)
Exterior Vehicle Wash Wastewater (LAG750000)
Hydrostatic Test Wastewater (LAG670000)
Light Commercial Facilities (LAG480000)
Multi-Sector General Stormwater (LAR050000)

Municipal Solid Waste Landfills (LAG660000)
Oil and Gas Activities (LAG330000)
Petroleum UST Systems Cleanup (LAG830000)
Potable Water Treatment Plants (LAG380000)
Sanitary Discharge Class I (LAG530000)
Sanitary Discharge Class II (LAG540000)
Sanitary Discharge Class III (LAG560000)
Sanitary Discharge Class IV (LAG570000)
Small Municipal Separate Storm Sewer Systems (LAR040000)
Storm Water for Construction Activities (LAR100000)
Storm Water for Small Construction Activities (LAR200000)
Treated Groundwater (LAG940000)

Section II.4 LDEQ and the Service will follow the procedures outlined in this section. LDEQ will send a list of anticipated renewals for all permits falling in all sensitive areas as defined under Section II.1, and all other information as detailed in this section.

Section II.5 LDEQ and the Service will follow the procedures described in the MOU.

Addendum to Sections II.1 and II.2 of the
2008-2009 Implementation Strategy for the
Louisiana Department of Environmental Quality (LDEQ)
and the U.S. Fish and Wildlife Service (Service)
Memorandum of Understanding (MOU)

A. Species-specific information regarding the Gulf sturgeon:

The Gulf sturgeon (*Acipenser oxyrhynchus desotoi*), federally listed as a threatened species, is an anadromous fish that occurs in many rivers, streams, and estuarine waters along the northern Gulf coast between the Mississippi River and the Suwannee River, Florida. In Louisiana, Gulf sturgeon have been reported at Rigolets Pass, rivers and lakes of the Lake Pontchartrain basin, and adjacent estuarine areas. Spawning occurs in coastal rivers between late winter and early spring (i.e., March to May). Adults and sub-adults may be found in those rivers and streams until November, and in estuarine or marine waters during the remainder of the year. Sturgeon less than two years old appear to remain in riverine habitats and estuarine areas throughout the year, rather than migrate to marine waters. Habitat alterations such as those caused by water control structures that limit and prevent spawning, poor water quality, and over-fishing have negatively affected this species.

On March 19, 2003, the Service and the National Marine Fisheries Service (NMFS) published a final rule in the Federal Register (Volume 68, No. 53) designating critical habitat for the Gulf sturgeon in Louisiana, Mississippi, Alabama, and Florida. Portions of the Pearl and Bogue Chitto Rivers, Lake Pontchartrain east of the Lake Pontchartrain Causeway, all of Little Lake, The Rigolets, Lake St. Catherine, and Lake Borgne within Louisiana were included in that designation. The primary constituent elements essential for the conservation of Gulf sturgeon are those habitat components that support feeding, resting, sheltering, reproduction, migration, and physical features necessary for maintaining the natural processes that support those habitat components; those elements should be considered when determining potential project impacts. The primary constituent elements for Gulf sturgeon critical habitat include:

- abundant prey items within riverine habitats for larval and juvenile life stages, and within estuarine and marine habitats for juvenile, sub-adult, and adult life stages;

- riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;

- riverine aggregation areas, also referred to as resting, holding and staging areas, used by adult, sub-adult, and/or juveniles, generally, but not always, located in holes below normal riverbed depths, believed necessary for minimizing energy expenditures during freshwater residency and possibly for osmoregulatory functions;

- a flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of freshwater discharge over time) necessary for normal behavior, growth,

and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging; and necessary for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larvae staging;

- water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages;

- sediment quality, including texture and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and

- safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., a river unobstructed by a permanent structure, or a dammed river that still allows for passage).

In that critical habitat designation, responsibility for consultation with specific Federal agencies was also identified for the Service and for the NMFS. For estuarine and marine waters in Louisiana, the NMFS is responsible for consultations regarding impacts to the sturgeon and its critical habitat with all Federal agencies, except the Department of Transportation, the Environmental Protection Agency, the U.S. Coast Guard, and the Federal Emergency Management Agency, which consult with the Service. Therefore, please contact Dr. Stephania Bolden (727/824-5312) in St. Petersburg, Florida, for information concerning that species and its critical habitat.

B. Specific information regarding listed subsegments for the Gulf sturgeon:

In an effort to provide more accurate information for the Gulf sturgeon and their known locations and potential habitats than what is listed in Sections II.1 and II.2 of the MOU, the Service offers the following specific information for individual subsegments that are listed for the Gulf sturgeon.

1. For the following subsegments, the Service requests review of those permits that would discharge into either the primary waterbody or its perennial primary tributaries:

   040301 – Amite River and perennial primary tributaries
   040302 – Amite River and perennial primary tributaries
   040303 – Amite River (Diversion Canal) and perennial primary tributaries
   040304 – Perennial primary tributaries of the Amite River
   040305 – Perennial primary tributaries of the Amite River
   040401 – Blind River and perennial primary tributaries
   040402 – Amite River Diversion Canal and perennial primary tributaries
   040501 – Tickfaw River and perennial primary tributaries
   040502 – Tickfaw River, Blood River, and perennial primary tributaries
   040503 – Natalbany River and perennial primary tributaries
   040505 – Ponchatoula Creek and River, and perennial primary tributaries

040701 – Tangipahoa River and perennial primary tributaries
040702 – Tangipahoa River and perennial primary tributaries
040801 – Tchefuncte River and perennial primary tributaries
040804 – Bogue Falaya River and perennial primary tributaries
040901 – Bayou Lacombe and perennial primary tributaries
040902 – Bayou Lacombe and perennial primary tributaries
040905 – Bayou Liberty and perennial primary tributaries
040906 – Bayou Liberty and perennial primary tributaries

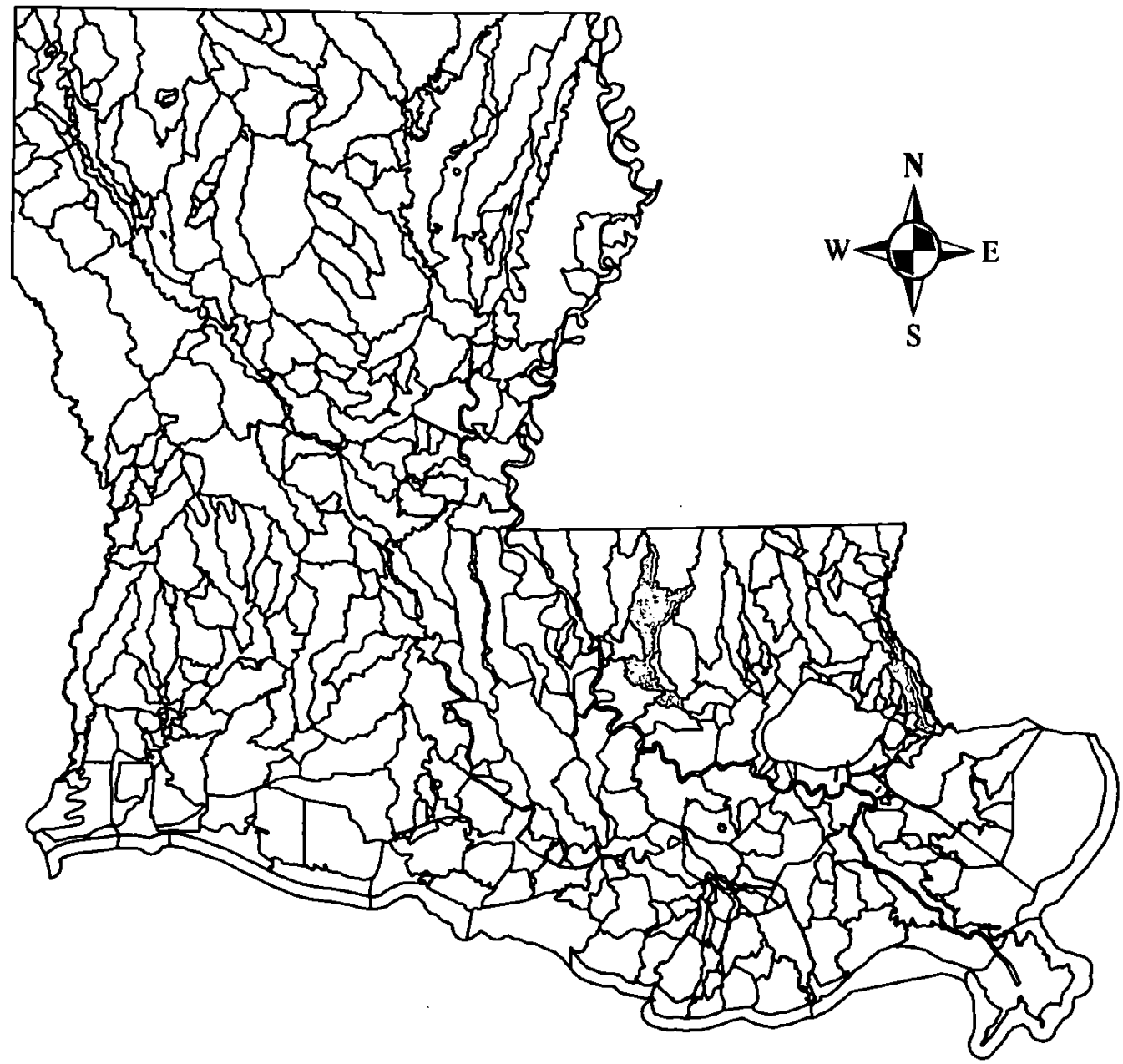
2. For the following subsegments, the Service requests review of those permits that would discharge into the primary waterbody only:

040102 – Comite River only
040103 – Comite River only
040601 – Pass Manchac and North Pass only
040602 – Lake Maurepas only
040604 – Owl Bayou only
040703 – Big Creek and East Fork only
040704 – Chappepeela Creek (both branches) only
040803 – Tchefuncte River only
040904 – All primary streams only
040908 – Bayou Bonfouca only
041702 – Bayou Sauvage and Chef Menteur Pass only

3. For the following subsegments, the Service requests review of those permits that would discharge into any waterbody within the subsegment:

040802, 040910, 041001, 041002, 041701, 041703, 041704, **041901**, 042001, 042003, **042201 – 042207**, **042209**, **070601**, 090101 – 090107, 090201 – 090208, 090301, 090401, 090501, 090506

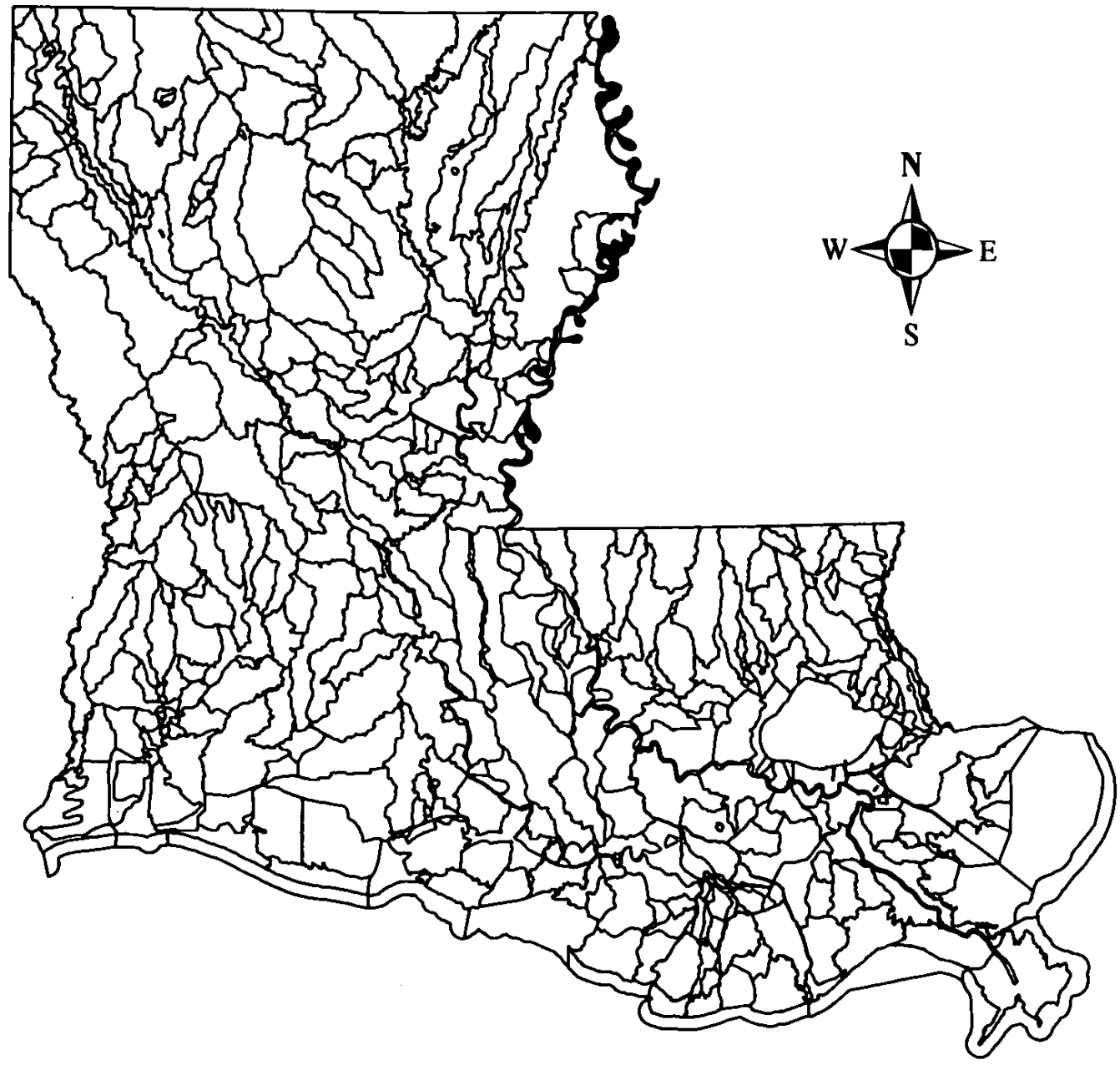
Alabama Heelsplitter Mussel
Subsegments 2008 - 2009



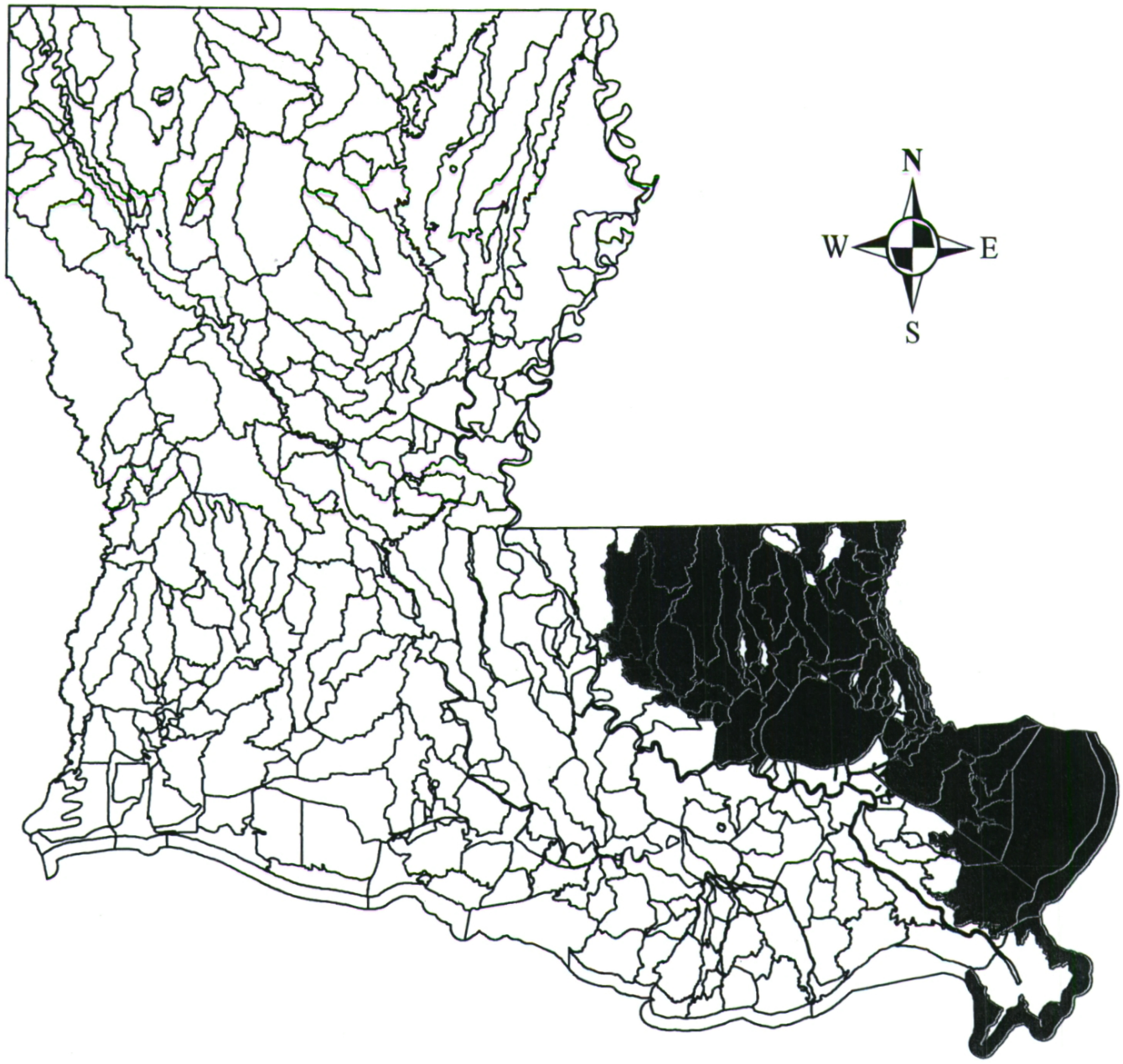
0 25 50 100

Miles

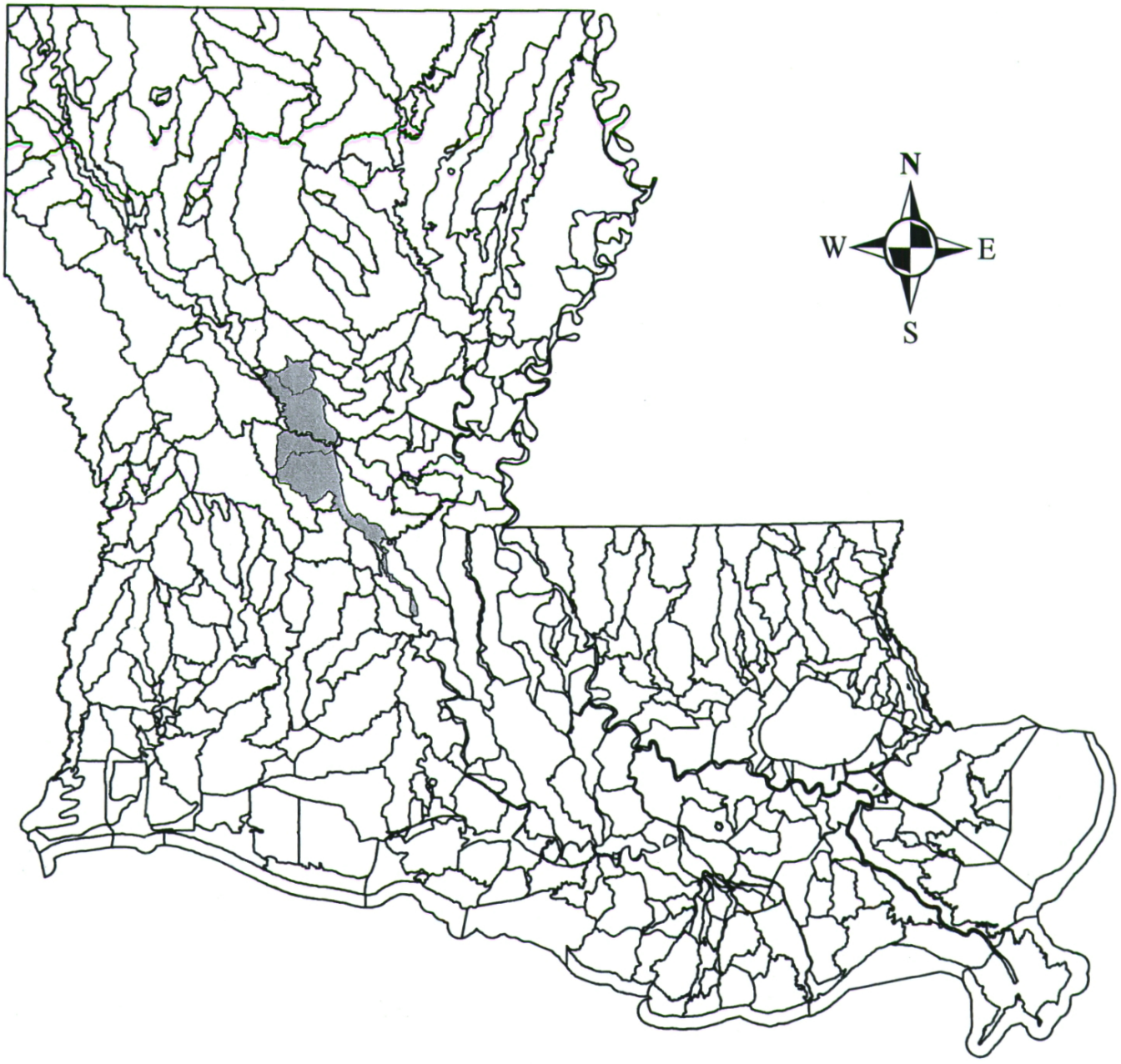
Fat Pocketbook Mussel
Subsegments 2008 - 2009



Gulf Sturgeon
Subsegments 2008 - 2009



Louisiana Pearlshell Mussel
Subsegments 2008 - 2009



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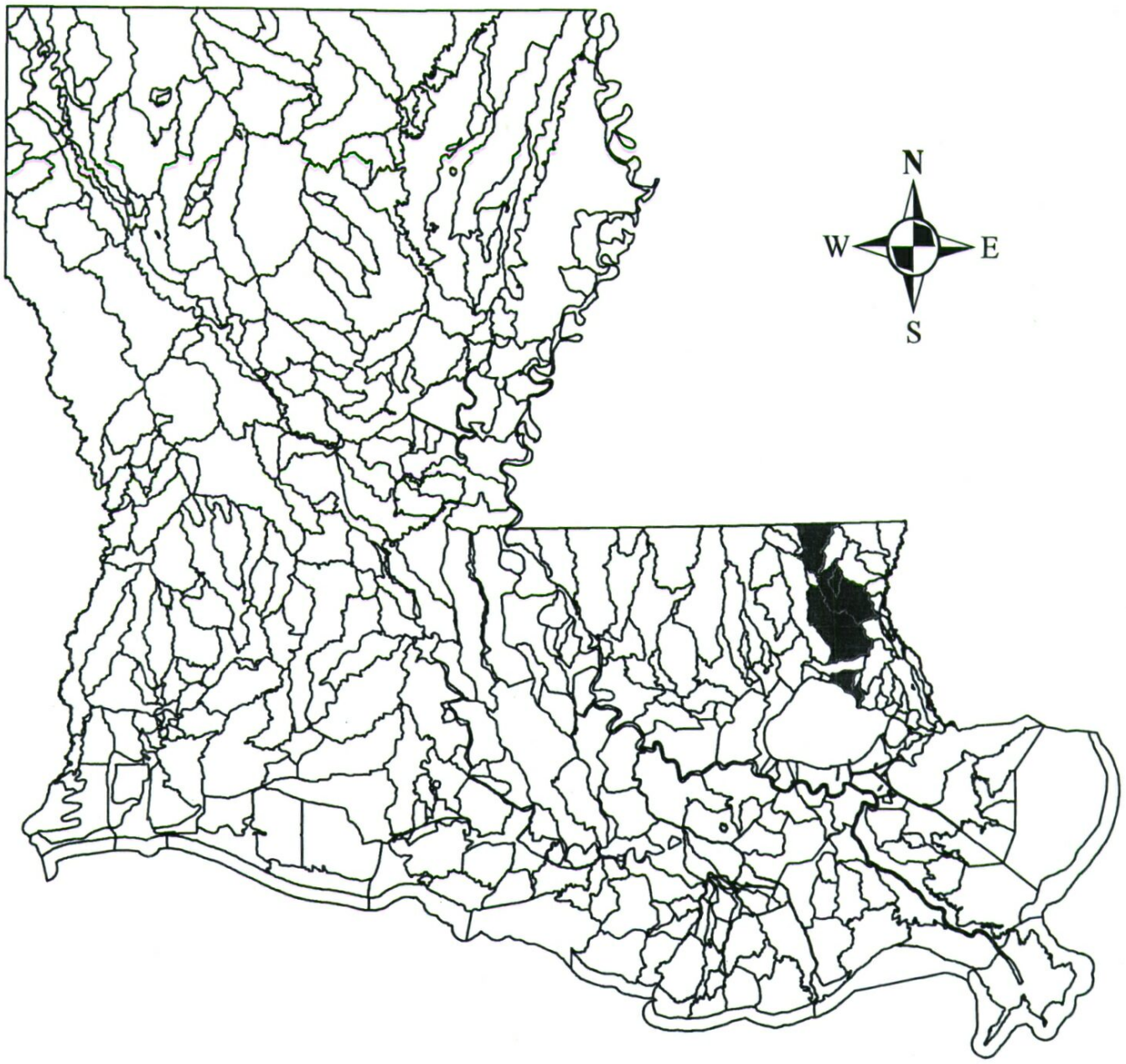
Louisiana Quillwort
Subsegments 2008 - 2009



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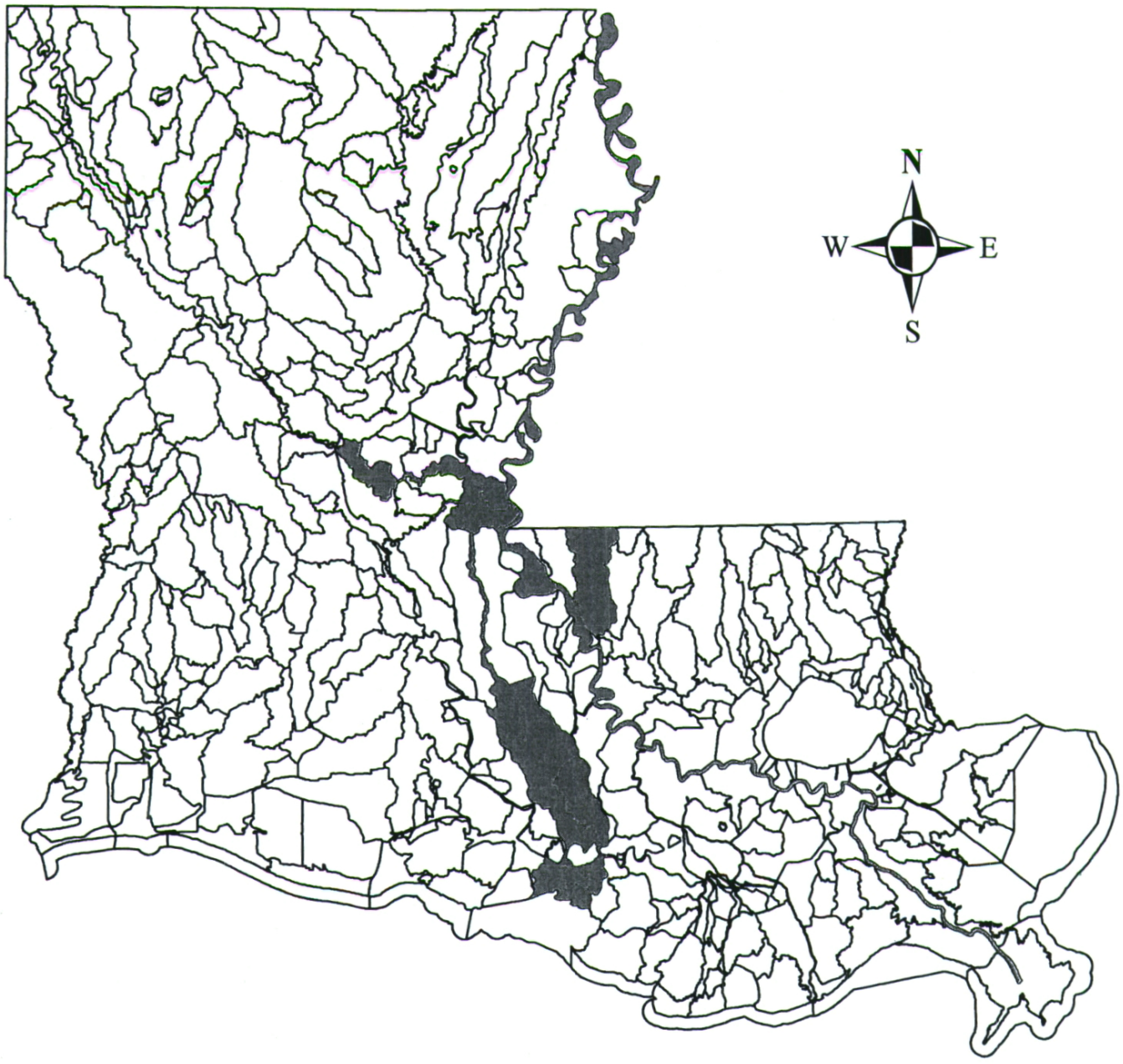
Pallid Sturgeon
Subsegments 2008 - 2009



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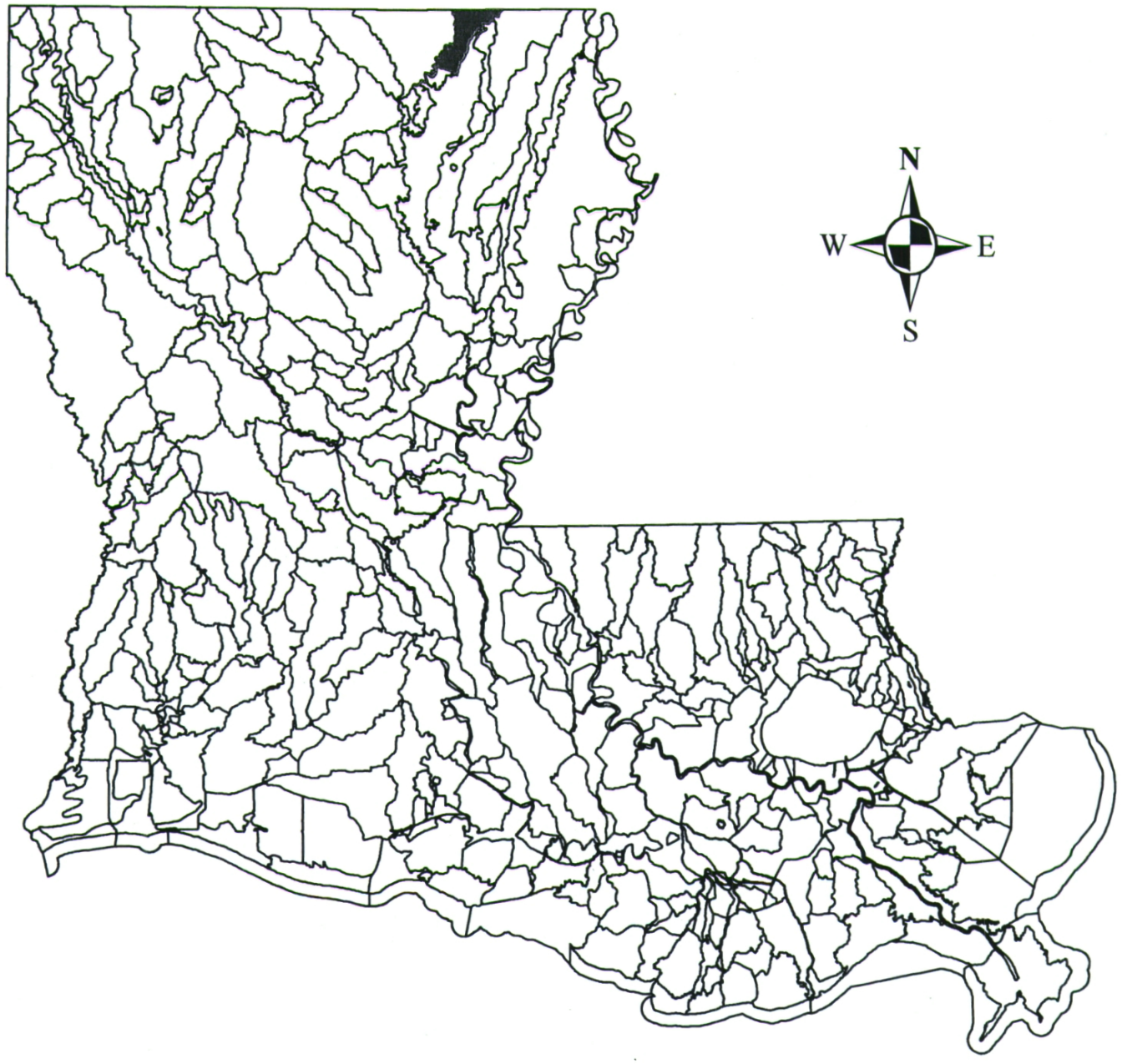
Pink Mucket Pearly Mussel
Subsegments 2008 - 2009



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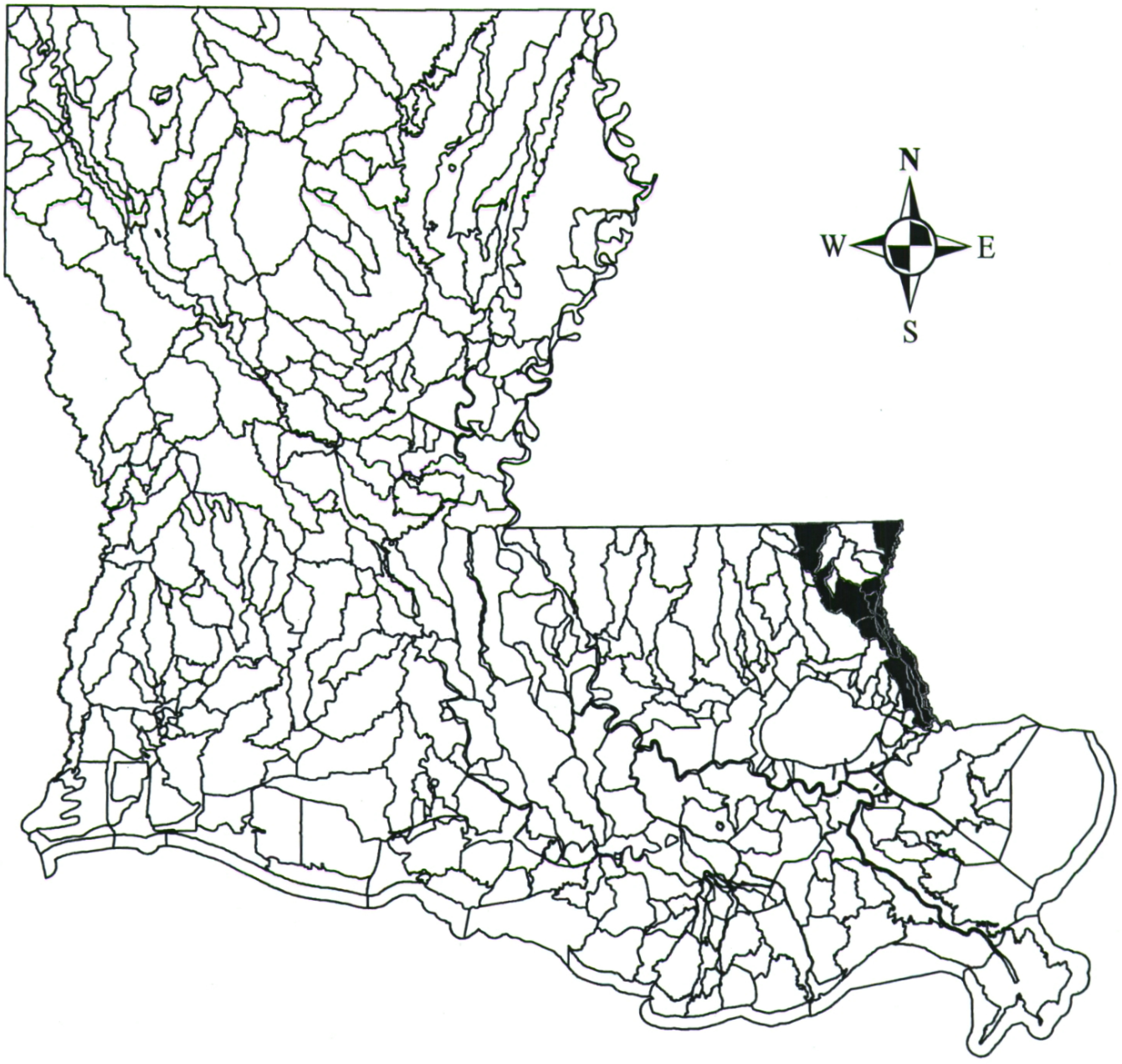
Ringed Map Turtle
Subsegments 2008 - 2009



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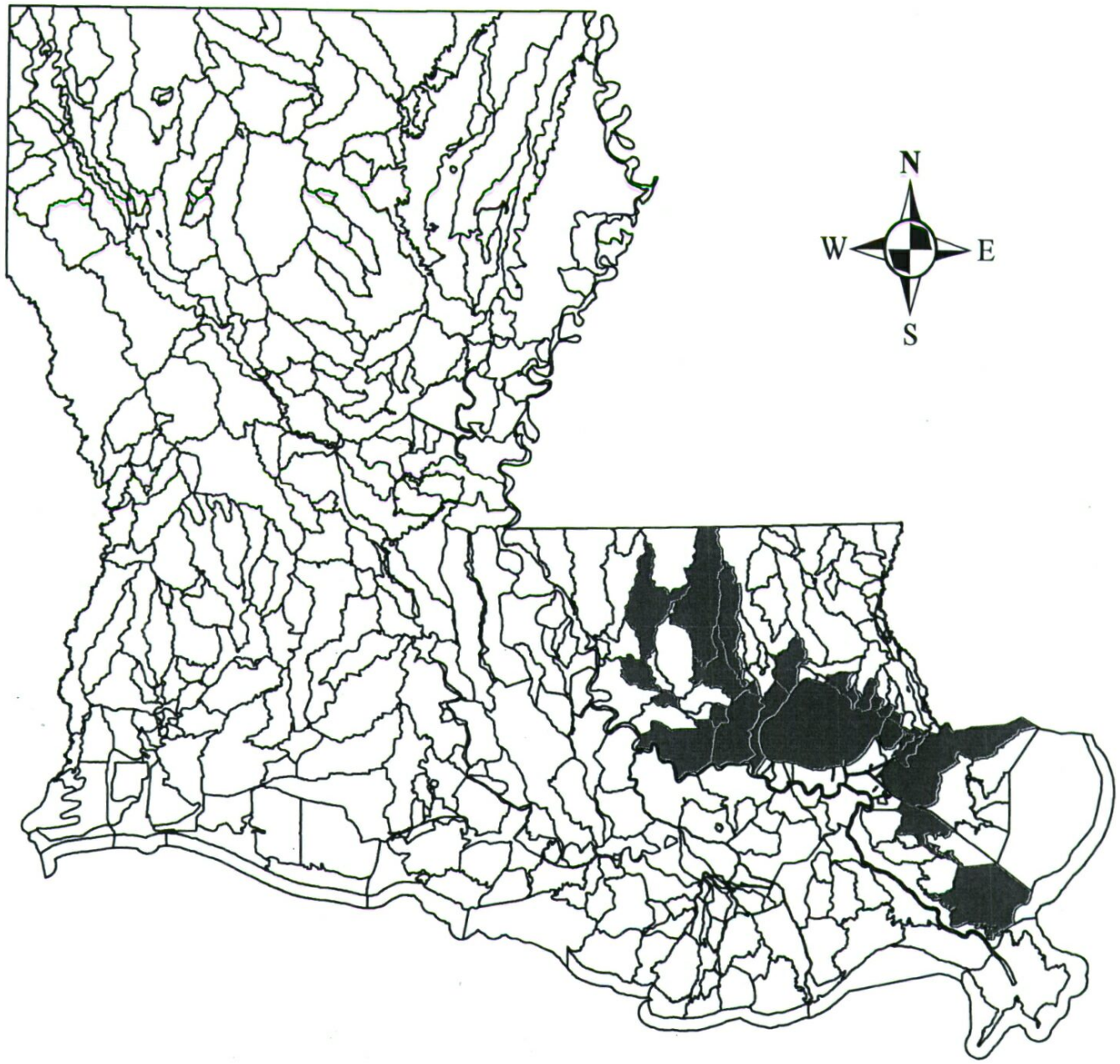
West Indian Manatee
Subsegments 2008 - 2009



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Miles

THREATENED AND ENDANGERED SPECIES OF LOUISIANA

E=Endangered T=Threatened C=Candidate CH=Critical Habitat PCH=Proposed Critical Habitat *

PARISH†	OCCURRENCE	GROUP	STATUS
ALLEN			
CHAFF-SEED, AMERICAN	KNOWN	PLANT	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
ASCENSION			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
MUSSEL, ALABAMA HEELSPLITTER	KNOWN	MOLLUSK	T
STURGEON, GULF	KNOWN	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
AVOYELLES			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
STURGEON, PALLID	KNOWN	FISH	E
BEAUREGARD			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
BIENVILLE			
SNAKE, LOUISIANA PINE	KNOWN	REPTILE	C
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
BOSSIER			
STURGEON, PALLID	POSSIBLE	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
CADDO			
EARTH FRUIT	KNOWN	PLANT	T
STURGEON, PALLID	POSSIBLE	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
CALCASIEU			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
CAMERON			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	KNOWN	FISH	T
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T
CATAHOULA			
STURGEON, PALLID	POSSIBLE	FISH	E
CONCORDIA			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
MUSSEL, FAT POCKETBOOK PEARLY	KNOWN	MOLLUSK	E
STURGEON, PALLID	KNOWN	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E

PARISH†	OCCURRENCE	GROUP	STATUS
DESOTO			
EARTH FRUIT	POSSIBLE	PLANT	T
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
EAST BATON ROUGE			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
MUSSEL, ALABAMA HEELSPLITTER	KNOWN	MOLLUSK	T
STURGEON, GULF	KNOWN	FISH	T
STURGEON PALLID	KNOWN	FISH	E
EAST CARROLL			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
MUSSEL, FAT POCKETBOOK PEARLY	KNOWN	MOLLUSK	E
STURGEON, PALLID	KNOWN	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E
EAST FELICIANA			
MUSSEL, ALABAMA HEELSPLITTER	KNOWN	MOLLUSK	T
STURGEON, GULF	KNOWN	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
EVANGELINE			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
FRANKLIN			
BEAR, LOUISIANA BLACK	POSSIBLE	MAMMAL	T, PCH
GRANT			
MUSSEL, LOUISIANA PEARLSHELL	KNOWN	MOLLUSK	T
STURGEON, PALLID	POSSIBLE	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
IBERIA			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
PELICAN, BROWN	KNOWN	BIRD	E
STURGEON, GULF	POSSIBLE	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T
IBERVILLE			
BEAR, LOUISIANA BLACK	POSSIBLE	MAMMAL	T, PCH
STURGEON, GULF	POSSIBLE	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
JACKSON			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E

PARISH†	OCCURRENCE	GROUP	STATUS
JEFFERSON			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	KNOWN	FISH	T, CH
STURGEON, PALLID	KNOWN	FISH	E
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T
LAFOURCHE			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	POSSIBLE	FISH	T
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T
LA SALLE			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
LIVINGSTON			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
MUSSEL, ALABAMA HEELSPLITTER	KNOWN	MOLLUSK	T
STURGEON, GULF	KNOWN	FISH	T
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
MADISON			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
MUSSEL, FAT POCKETBOOK PEARLY	KNOWN	MOLLUSK	E
STURGEON, PALLID	KNOWN	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E
MOREHOUSE			
MUSSEL, PINK MUCKET PEARLY	KNOWN	MOLLUSK	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
NATCHITOCHES			
SNAKE, LOUISIANA PINE	KNOWN	REPTILE	C
STURGEON, PALLID	POSSIBLE	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
ORLEANS			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	POSSIBLE	BIRD	E
STURGEON, GULF	KNOWN	FISH	T, CH
STURGEON, PALLID	KNOWN	FISH	E
OUACHITA			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E

PARISH†	OCCURRENCE	GROUP	STATUS
PLAQUEMINES			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	KNOWN	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T
POINTE COUPEE			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
STURGEON, PALLID	KNOWN	FISH	E
RAPIDES			
MUSSEL, LOUISIANA PEARLSHELL	KNOWN	MOLLUSK	T
STURGEON, PALLID	POSSIBLE	FISH	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
RED RIVER			
STURGEON, PALLID	POSSIBLE	FISH	E
TERN, LEAST INTERIOR	KNOWN	BIRD	E
RICHLAND			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
SABINE			
SNAKE, LOUISIANA PINE	KNOWN	REPTILE	C
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
ST. BERNARD			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	KNOWN	FISH	T, CH
STURGEON, PALLID	KNOWN	FISH	E
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T
ST. CHARLES			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	POSSIBLE	BIRD	E
STURGEON, GULF	KNOWN	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
ST. HELENA			
STURGEON, GULF	KNOWN	FISH	T
MUSSEL, ALABAMA HEELSPLITTER	KNOWN	MOLLUSK	T
ST. JAMES			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
STURGEON, GULF	POSSIBLE	FISH	T
STURGEON, PALLID	KNOWN	FISH	E

PARISH†	OCCURRENCE	GROUP	STATUS
ST. JOHN THE BAPTIST			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	POSSIBLE	BIRD	E
STURGEON, GULF	KNOWN	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
ST. LANDRY			
BEAR, LOUISIANA BLACK	POSSIBLE	MAMMAL	T, PCH
STURGEON, PALLID	KNOWN	FISH	E
ST. MARTIN			
BEAR, LOUISIANA BLACK	POSSIBLE	MAMMAL	T, PCH
STURGEON, PALLID	KNOWN	FISH	E
ST. MARY			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	POSSIBLE	FISH	T
STURGEON, PALLID	KNOWN	FISH	E
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T
ST. TAMMANY			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	POSSIBLE	BIRD	E
QUILLWORT, LOUISIANA	KNOWN	PLANT	E
STURGEON, GULF	KNOWN	FISH	T, CH
TORTOISE, GOPHER	KNOWN	REPTILE	T
TURTLE, RINGED MAP	KNOWN	REPTILE	T
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
TANGIPAHOA			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	POSSIBLE	BIRD	E
STURGEON, GULF	KNOWN	FISH	T
TORTOISE, GOPHER	KNOWN	REPTILE	T
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
TENSAS			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
MUSSEL, FAT POCKETBOOK PEARLY	KNOWN	MOLLUSK	E
STURGEON, PALLID	KNOWN	FISH	E
TERN, INTERIOR LEAST	KNOWN	BIRD	E
TERREBONNE			
MANATEE, WEST INDIAN	POSSIBLE	MAMMAL	E
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	KNOWN	FISH	T
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY SEA	KNOWN	REPTILE	E
TURTLE, LEATHERBACK SEA	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD SEA	KNOWN	REPTILE	T

PARISH†	OCCURRENCE	GROUP	STATUS
UNION			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
VERMILION			
PELICAN, BROWN	KNOWN	BIRD	E
PLOVER, PIPING	KNOWN	BIRD	T, CH
STURGEON, GULF	POSSIBLE	FISH	T
TURTLE, GREEN SEA	KNOWN	REPTILE	T
TURTLE, HAWKSBILL SEA	KNOWN	REPTILE	E
TURTLE, KEMP'S RIDLEY	KNOWN	REPTILE	E
TURTLE, LEATHERBACK	KNOWN	REPTILE	E
TURTLE, LOGGERHEAD	KNOWN	REPTILE	T
VERNON			
SNAKE, LOUISIANA PINE	KNOWN	REPTILE	C
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
WASHINGTON			
QUILLWORT, LOUISIANA	KNOWN	PLANT	E
STURGEON, GULF	KNOWN	FISH	T, CH
TORTOISE, GOPHER	KNOWN	REPTILE	T
TURTLE, RINGED MAP	KNOWN	REPTILE	T
WEBSTER			
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E
WEST BATON ROUGE			
STURGEON, PALLID	KNOWN	FISH	E
WEST CARROLL			
BEAR, LOUISIANA BLACK	KNOWN	MAMMAL	T, PCH
WEST FELICIANA			
BEAR, LOUISIANA BLACK	POSSIBLE	MAMMAL	T, PCH
STURGEON, PALLID	KNOWN	FISH	E
WINN			
EARTH FRUIT	KNOWN	PLANT	T
STURGEON, PALLID	POSSIBLE	FISH	E
WOODPECKER, RED-COCKADED	KNOWN	BIRD	E

* Endangered – any species which is in danger of extinction throughout all or a significant portion of its range.

Threatened – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Candidate – plant and animal taxa considered for possible addition to the List of Endangered and Threatened Species. These are taxa for which the Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposal to list, but issuance of a proposed rule is currently precluded by higher priority listing actions.

Critical Habitat – for listed species consists of: (1) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Act, on which are found those physical or biological features (constituent elements) (a) essential to the conservation of the species and (b) which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Proposed Critical Habitat – habitat proposed in the Federal Register to be designated as critical habitat, or habitat proposed to be added to an existing critical habitat designation, under section 4 of the Act for any listed or proposed species.

† If a Parish is not listed here, there are no known occurrences of a threatened, endangered, or candidate species, or their critical habitat, for that Parish.

THREATENED AND ENDANGERED SPECIES

MAMMALS	STATUS	GENERAL DISTRIBUTION IN LOUISIANA
Bear, Louisiana (*Ursus americanus luteolus*)	Threatened	Entire state
Manatee, West Indian (*Trichechus manatus*)	Endangered	Lake Pontchartrain & tributaries on North shore; rare along Gulf coast
Panther, Florida (*Felis concolor coryi*)	Endangered[1]	Entire state
Whale, finback (*Balaenoptera physalus*)	Endangered	Coastal waters
Whale, humpback (*Megaptera novaeangliae*)	Endangered	Coastal waters
Whale, right (*Eubalaena glacialis*)	Endangered	Coastal waters
Whale, sei (*Balaenoptera borealis*)	Endangered	Coastal waters
Whale, sperm (*Physeter catodon*)	Endangered	Coastal waters
Wolf, red (*Canis rufus*)	Endangered[1]	Cameron and Calcasieu Parishes
BIRDS		
Curlew, Eskimo (*Numenius borealis*)	Endangered[1]	Entire state
Pelican, brown (*Pelecanus occidentalis*)	Endangered	Coast
Plover, piping (*Charadrius melodus*)	Threatened	Coast
Tern, interior least (*Sterna antillarum*)	Endangered	Mississippi River, north of Baton Rouge; Red River, north of Shreveport & Loggy Bayou
Warbler, Bachman's (*Vermivora bachmanii*)	Endangered[2]	Entire state
Woodpecker, ivory-billed (*Campephilus principalis*)	Endangered[1]	Entire state
Woodpecker, red-cockaded (*Picoides borealis*)	Endangered	Entire state except Delta
REPTILES		
Alligator, American (*Alligator mississippiensis*)	Threatened (S/A)[3]	Entire state
Snake, Louisiana pine (*Pituophis ruthveni*)	Candidate	Bienville, Natchitoches, Sabine, and Vernon Parishes
Tortoise, gopher (*Gopherus polyphemus*)	Threatened	Washington, St. Tammany, and Tangipahoa Parishes
Turtle, Kemp's (Atlantic) ridley sea (*Lepidochelys kempii*)	Endangered	Coastal waters
Turtle, green sea (*Chelonia mydas*)	Threatened	Coastal waters
Turtle, hawksbill sea (*Eretmochelys imbricata*)	Endangered	Coastal waters
Turtle, leatherback sea (*Dermochelys coriacea*)	Endangered	Coastal waters
Turtle, loggerhead sea (*Caretta caretta*)	Threatened	Coastal waters
Turtle, ringed map (=sawback) (*Graptemys oculifera*)	Threatened	Pearl and Bogue Chitto Rivers

FISH		
Sturgeon, Gulf (*Acipenser oxyrhynchus desotoi*)	Threatened	Pearl River & Lake Pontchartrain tributaries
Sturgeon, pallid (*Scaphirhynchus albus*)	Endangered	Mississippi River & tributaries
INVERTEBRATES		
Mussel, fat pocketbook pearly (*Potamilus capax*)	Endangered	Mississippi River
Mussel, Alabama heelsplitter (=inflated) (*Potamilus inflatus*)	Threatened	Amite River
Mussel, Louisiana pearlshell (*Margaritifera hembeli*)	Threatened	Bayou Boeuf and Bayou Rigolette drainages Rapides and Grant Parishes
Mussel, pink mucket pearly (*Lampsilis abrupta*)	Endangered	Bayou Bartholomew
PLANTS		
American chaff-seed (*Schwalbea americana*)	Endangered	Allen Parish
Earth fruit (*Geocarpon minimum*)	Threatened	Winn and Caddo Parishes
Louisiana quillwort (*Isoetes louisianensis*)	Endangered	Washington and St. Tammany Parishes

[1] The Florida panther, red wolf, Eskimo curlew, and ivory-billed woodpecker are presumed to be extinct in the state.

[2] There has been no confirmed Bachman's Warbler U.S. nesting ground sighting since the mid-1960s, however, several sightings of the species have occurred on wintering grounds during the last decade. This species may be extirpated in Louisiana.

[3] For law enforcement purposes the alligators in Louisiana are classified as "Threatened due to Similarity of Appearance." They are biologically neither endangered nor threatened. Regulated harvest is permitted under State law. September 21, 1998