



MISSISSIPPI  
DEPARTMENT OF WILDLIFE, FISHERIES, AND PARKS

Sam Polles, Ph.D.  
Executive Director

June 24, 2008,

United States Nuclear Regulatory Commission  
Rules and Directives Branch  
Division of Administrative Services  
Washington, D.C. 20555-001

RECEIVED

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RULES AND DIRECTIVES  
BRANCH  
USNRC

5/30/08  
73 FR 31153  
③

Re: Grand Gulf  
Claiborne County

R# 6693

To Whom It May Concern:

In response to your request for information dated May 29, 2008, we have searched our database for occurrences of state or federally listed species and species of special concern that occur within proposed project area of Claiborne, Warren and Hinds Counties. Please see the table below for a list of these species.

SCIENTIFIC NAME	COMMON NAME	FED	STATE	STATE RANK
<i>Pachysandra procumbens</i>	Allegheny-spurge		S3	
<i>Alligator mississippiensis</i>	American Alligator	SAT	S4	
<i>Plectomerus dombeyanus</i>	Bankclimber		S5	
<i>Etheostoma rubrum</i>	Bayou Darter	LT	S1	LE
<i>Ursus americanus</i>	Black Bear		S1	LE
<i>Ictiobus niger</i>	Black Buffalo		S3	
<i>Coragyps atratus</i>	Black Vulture		S4B	
<i>Potamilus purpuratus</i>	Bleufer		S5	
<i>Cycleptus elongatus</i>	Blue Sucker		S3	
<i>Tadarida brasiliensis</i>	Brazilian Free-tailed Bat		S5	
<i>Menispermum canadense</i>	Canada Moonseed		S3	
<i>Ichthyomyzon castaneus</i>	Chestnut Lamprey		S3	
<i>Haploperla chukcho</i>	Chukcho Stonefly		S2	
<i>Petrochelidon pyrrhonota</i>	Cliff Swallow		S3B	

SUNSI Review Complete  
Template = ADM-013

E-RIDS = ADM-013  
ADD = J. Dozier (4502)  
P. Nicholas (4502)

<i>Celastrus scandens</i>	Climbing Bittersweet		S2S3	
<i>Crystallaria asprella</i>	Crystal Darter		S1	LE
<i>Truncilla truncata</i>	Deertoe		S3	
<i>Trillium foetidissimum</i>	Fetid Trillium		S3	
<i>Mikania cordifolia</i>	Florida Keys Hempvine		S3S4	
<i>Leptodea fragilis</i>	Fragile Papershell		S5	
<i>Pyganodon grandis</i>	Giant Floater		S5	
<i>Diplazium pycnocarpon</i>	Glade Fern		S2S3	
<i>Hiodon alosoides</i>	Goldeye		S4	
<i>Luzula acuminata</i>	Hairy Woodrush		S3	
<i>Toxolasma parvus</i>	Lilliput		S4	
<i>Villosa lienosa</i>	Little Spectaclecase		S5	
<i>Lanius ludovicianus</i>	Loggerhead Shrike		S4B,S4N	
<i>Ursus americanus luteolus</i>	Louisiana Black Bear	LT	S1	LE
<i>Trillium ludovicianum</i>	Louisiana Trillium		S1?	
<i>Fiatythelys querceticola</i>	Low Erythrodes		S1	
<i>Quadrula quadrula</i>	Mapleleaf		S5	
<i>Graptemys pseudogeographica kohnii</i>	Mississippi Map Turtle		S4?	
<i>Alloperla natchez</i>	Natchez Stonefly		S2	
<i>Fundulus dispar</i>	Northern Starhead Topminnow		S3	
<i>Polyodon spathula</i>	Paddlefish		S3	
<i>Scaphirhynchus albus</i>	Pallid Sturgeon	LE	S1	LE
<i>Utterbackia imbecillis</i>	Paper Pondshell		S5	
<i>Quadrula pustulosa</i>	Pimpleback		S5	
<i>Potamilus ohioensis</i>	Pink Papershell		S3?	
<i>Tritogonia verrucosa</i>	Pistolgrip		S4	
<i>Lampsilis cardium</i>	Plain Pocketbook		S3S4	
<i>Arcidens confragosus</i>	Rock Pocketbook		S2	
<i>Lampropeltis triangulum elapsoides</i>	Scarlet Kingsnake		S4	
<i>Cyprinella whipplei</i>	Steelcolor Shiner		S3	
<i>Toxolasma texasiensis</i>	Texas Lilliput		S4	
<i>Amblema plicata</i>	Three-ridge		S5	
<i>Megalonaias nervosa</i>	Washboard		S4S5	
<i>Plethodon websteri</i>	Webster's Salamander		S3	
<i>Eudocimus albus</i>	White ibis		S2B,S3N	
<i>Mycteria americana</i>	Wood Stork		S2N	LE
<i>Lampsilis teres</i>	Yellow Sandshell		S5	

#### State Rank

S1 — Critically imperiled in Mississippi because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.

S2 — Imperiled in Mississippi because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.

S3 — Rare or uncommon in Mississippi (on the order of 21 to 100 occurrences).

S4 — Widespread, abundant, and apparently secure in the state, but with cause for long-term concern (more than 101 occurrences).

S5 — Demonstrably widespread, abundant, and secure in the state.

SX — Element is believed to be extirpated from the state.

S#B — Breeding population

S#N — Nonbreeding population

S#M — Transient population  
SU — Unrankable  
SNR — Not ranked  
SNA — Not applicable (Element is not a suitable target for conservation)

#### State and Federal Status

LE Endangered — A species which is in danger of extinction throughout all or a significant portion of its range.  
LT Threatened — A species likely to become endangered in foreseeable future throughout all or a significant portion of its range.  
C — Candidate for Federal listing/protection.  
PS — Partial Status. Species is listed in part of its range.  
SAT — Listed because of similar appearance.

### Species/Community Description, Range, Conservation Status and Threats:

#### **Black Bear (*Ursus americanus*); LE (MS)**

#### **Louisiana Black Bear (*Ursus americanus luteolus*); LT (Federal); LE (MS)**

The black bear is large and stocky, with a short tail, brown muzzle and occasionally a white blaze on the chest. Adults usually stand from 90-150 cm (3-3.5 ft.) at the shoulder, are 137-188 cm (4.5-6.25 ft.) long, and weigh from about 90-182 kg (198-400 lbs). Two subspecies occur in Mississippi. The Louisiana black bear (*U. americanus luteolus*) occupies the southern half of the state as well as Louisiana and eastern Texas. Declining populations led the U.S. Fish and Wildlife Service to list this subspecies as endangered in 1992. The Louisiana black bear is also considered endangered by the state of Mississippi. *Ursus americanus americanus* occurs in the northern half of the state and is considered endangered in the state, as well. Black bears probably lived throughout Mississippi in the past; however, populations have declined because of habitat destruction, over hunting, and collisions with automobiles. Today black bears appear to be restricted to the bottomlands along the Mississippi, lower Pearl, and Pascagoula Rivers. Efforts should be made to preserve bear habitat, especially bottomland hardwoods along major river systems. Bears benefit from forest management practices that promote diverse, productive habitats that contain blackberries, hardwoods, and other food plants; shrubs and fallen logs for escape cover; and brushpiles and large trees that can serve as den sites. Forest management activities should include leaving some large, old-growth timber as denning sites for females. Construction/Development projects that are proposed to cross known black bear habitats should take care not to negatively impact denning trees, specifically cypress and tupelo trees that are  $\geq 36$  inches DBH, large trees that are compromised or show signs of cavities, and that occur near sloughs or other waterways. New highways should be routed carefully to minimize the likelihood that bears moving between available habitat patches in the region will not be struck by cars. Black bears can coexist with humans provided there is habitat available to meet all their needs. Ultimately, acceptance of black bears and restoration depends on the attitudes of the citizens of Mississippi. For more information about black bears in Mississippi, please contact Brad Young, MS Dept. Wildlife, Fisheries, and Parks (601-354-7303, ext. 112).

#### **Wood Stork (*Mycteria americana*); PS:LE (Federal), LE (MS)**

The wood stork is a large wading bird 102-112 cm (40-44 in.) in length with a wingspread of 1.5 m (5.5 ft.). Its body is white with black flight feathers and a black tail. The head is naked and blackish-gray in adults and the bill, which is thick and down-curved, is brownish-gray. This species formerly bred from South Carolina south to

Florida, west to Texas, and south to southern South America. In the United States, wood storks now breed only in South Carolina, Florida, and Georgia, but disperse throughout the southeast, east, and Midwest after breeding activities have been concluded. Wood storks have been observed most frequently in Mississippi along the western edge of the state in those counties bordering the Mississippi River, although they may occur almost anywhere there are sloughs or swamps to provide feeding habitat. The wood stork occurs primarily in freshwater wetlands, including ponds, bayheads, flooded pastures, oxbow lakes, and ditches. Nesting usually occurs in bald cypress trees in swamps, although breeding has also been observed in mangroves. The wood stork is listed as an endangered species by the U.S. Fish and Wildlife Service in Florida, Georgia, Alabama, and South Carolina. Those storks observed in Mississippi are considered to be visitors from Mexico and Central America by the federal government and thus are not considered endangered. However, birds banded in Florida have been observed in Mississippi, and this state should probably be included in the Fish and Wildlife Service listing. The wood stork population in the United States has declined at least 75% in the last 50 years. One of the primary reasons for this decline is habitat alteration. The construction of canals, levees, and other such structures has interfered with the normal water cycles upon which successful wood stork breeding depends. Human disturbance at breeding colony sites has also contributed to the decline of this species.

**Bayou Darter (*Etheostoma rubrum*); LT (Federal); LE (MS)**

The bayou darter is a small fish attaining a maximum total length of about 63 mm (2.5 in.). The back and upper sides are brown to olive-green and the belly is light green to white. *Etheostoma rubrum* is endemic to Mississippi and occurs only in Bayou Pierre and its larger tributaries (White Oak, Foster, and Turkey Creeks) in Copiah, Claiborne, and Hinds Counties. This species is listed as threatened by the U.S. Fish and Wildlife Service and endangered by the state of Mississippi. The bayou darter normally prefers swift, shallow water flowing over coarse gravel, but during the winter it occupies areas with large cover objects, such as logs and boulders which are used for shelter during floods. Occasionally, large individuals are found in areas of swift current in aquatic vegetation along steep banks. The bayou darter seems to prefer larger streams within its limited range and is not found in small tributaries. Their habitat is threatened by gravel mining in the Bayou Pierre watershed, which directly impacts the stable gravel riffles it prefers. Clearing of vegetation along stream banks and bridge and road construction have contributed to siltation within the watershed, resulting in riffle areas becoming unsuitable for bayou darter use. Restrictions on gravel mining on or near the Bayou Pierre should be implemented and enforced. Stream banks within this watershed which have been cleared should have their natural vegetation restored. For more information about this species, please contact Dr. Todd Slack, MS Dept. Wildlife, Fisheries, and Parks (601-354-7303, ext. 111).

**Pallid Sturgeon (*Scaphirhynchus albus*); LE (Federal); LE (MS)**

This freshwater sturgeon is grayish white and has a broad, shovel-shaped snout and a slender caudal peduncle (area just in front of the tail fin). It differs from the similar (and much more common) shovelnose sturgeon in its lighter hue, in its barbel arrangement (the bases of the two most lateral barbels beneath the snout are usually just posterior to

the bases of the medial barbel pair; the opposite arrangement is characteristic of the shovelnose), and in the absence of scale-like scutes on the belly between the rows of ventrolateral plates. *Scaphirhynchus albus* is a federally listed endangered species that has drastically declined throughout its 3500 mile river range during the past 20 years. The pallid sturgeon is nearly restricted to the main channels of the Lower Yellowstone River, the Missouri River, and the lower Mississippi River. In Mississippi, this fish has been collected from the Mississippi River and the Big Sunflower River in Sharkey County. The pallid sturgeon prefers turbid water with strong current over sandy or rocky bottom. Fifty-one percent of its range has been channelized, an additional 28 percent has been impounded, and the remaining 21 percent is affected by related changes in flow regimes. Habitat alterations (i.e., channelizations, impoundments) have blocked movements of the fish, Channel alteration is apparently the most important factor affecting the rapid decline of this species and any additional channel modification projects within the range and habitat of the pallid sturgeon should be curbed.

**Crystal Darter (*Crystallaria asprella*); LE (MS)**

The crystal darter is an elongate, slender fish species which reaches a maximum total length of about 150 mm (6 in.). The crystal darter is listed as an endangered species by the state of Mississippi and, though not especially abundant, still occurs in Bayou Pierre, the Pearl River system, and sections of the Buttahatchee and Tombigbee rivers that were not directly impacted by the construction of the Tenn-Tom Waterway. The crystal darter inhabits clean sand and gravel raceways of larger creeks and rivers where water depths are greater than 60 cm (ca. 2 ft.) and currents are moderate to strong. Habitat alteration and pollution seem to be responsible for the disappearance of *Crystallaria asprella* across much of its former range. Habitat alterations have considerably reduced its range in the Tombigbee. Restrictions on water quality degradation and habitat alterations should be implemented for streams known to harbor crystal darters. For more information about this species, please contact Dr. Todd Slack, MS Dept. Wildlife, Fisheries, and Parks (601-354-7303, ext. 111).

Please feel free to contact us if we can provide any additional information, resources, or assistance that will help minimize negative impacts to the species and/or ecological communities identified in this review. We are happy to work with you to ensure that our state's precious natural heritage is conserved and preserved for future Mississippians.

Sincerely,



Sherry B. Surette, Coordinator  
Mississippi Natural Heritage Program  
(601) 354-6367, ext. 118

The Mississippi Natural Heritage Program (MNHP) has compiled a database that is the most complete source of information about Mississippi's rare, threatened, and endangered plants, animals, and ecological communities. The quantity and quality of data collected by MNHP are dependent on the research and observations of many individuals and organizations. In many cases, this information is not the result of comprehensive or site-specific field surveys; most natural areas in Mississippi have not been thoroughly surveyed and new occurrences of plant and animal species are often discovered. Heritage reports summarize the existing information known to the MNHP at the time of the request and cannot always be considered a definitive statement on the presence, absence or condition of biological elements on a particular site.