

### **Algal Blooms**

Current Conditions: No algal blooms have been reported to date.

Future Conditions: There is a potential for algal blooms to develop in the future as water temperature increases. If a bloom is reported, we have a plan in place to collect samples and have the species identified by Louisiana State University.

### **Endangered Species**

Entrainment of sturgeon through the spillway (including the endangered Pallid sturgeon, and the threatened, Shovelnose sturgeon occurs. At the onset of each operation we initiate emergency Section 7 consultation under the Endangered Species Act with the USFWS. Through a close working relationship with the USFWS, we have established conservation measures to minimize impacts to sturgeon. As a result, CEMVN contracts ERDC to rescue (by netting) the entrained pallid sturgeon. Those fish are tagged and returned to the MS River. The introduction of invasive Asian carp into the Lake Pontchartrain tributaries is also a concern.

Current Conditions: The MS River stage and leakage through the bays has prevented the ERDC team from netting entrained sturgeon from the 1<sup>st</sup> 2019 opening.

Future Conditions: There is a potential for more sturgeon to be entrained. When the Spillway is closed the ERDC team will capture sturgeon, tag, and return to the River.

### **Asian Carp**

The introduction of invasive Asian carp into the Lake Pontchartrain tributaries is also a concern.

Current Conditions: The MS River stage and leakage through the bays has prevented the ERDC team from netting and tagging Carp during the 1<sup>st</sup> 2019 opening.

Future Conditions: There is a potential for more Carp to be introduced to the Lake Pontchartrain watershed. When the Spillway is closed the ERDC team will capture and tag carp that are captured during the pallid sturgeon rescue.

### **Brown Shrimp**

Current Conditions: The brown shrimp season opens in the Pontchartrain Basin during the month of May. Although Lake Pontchartrain normally produces fair volumes of brown shrimp, as of May 7, the LDWF sampled no brown shrimp in Lake Pontchartrain. Brown shrimp numbers and size are down 20% in Lake Borgne, MS Sound, and adjacent marsh. MS Department of Marine Resources are reporting similar low brown shrimp numbers. Some marketable size white shrimp are being sampled in Lake Borgne and MS Sound.

Future Conditions Low to no harvest is expected from Lake Pontchartrain. Brown shrimp in Lake Borgne and MS Sound will have reduced growth rates, and will be displaced Gulf-ward.

### **Oyster**

The viable oyster reefs are located from the area where Lake Borgne meets MS Sound, eastward through MS Sound along the coast of MS to near Biloxi. The area also extends through the bays and lakes south from MS Sound to the MS River Gulf Outlet.

Current Conditions: 5% to 10% seed mortality is documented since last week's sampling effort. Adult (marketable sized) oysters are doing well with only 1% mortality in Louisiana waters. MS is seeing similar results but reefs closer to the Pearl River are showing increased mortality.

Future Conditions: It is likely that areas of oyster reefs, especially those in Lake Borgne and western MS Sound, will experience high mortality if salinity drops below 5ppt, and the water temperature increases. Other species will re-inhabit affected areas once salinity levels return to near normal, whereas oyster harvest will be adversely affected for the 2-3 years it takes for their growth to reach harvestable size.

### **Dolphin**

NOAA hasn't fully processed the strandings data so these numbers are very preliminary (some deceased dolphin may have been counted more than once) and are for the entire state. NOAA typically sees some dolphins with signs of freshwater exposure in the northern Gulf at this time of year. Many of the strandings show signs of freshwater exposure, but they are highly decomposed. They will likely not be able to determine a cause of death for many of the individuals.

#### Current Conditions

The state of Louisiana has had approximately 69 dolphin strandings/deaths since 1 Jan 2019 to 5 May 2019. The average is 29.

The state of Mississippi had approximately 70 dolphin strandings/deaths since 1 Jan 2019. The average is 25.

It should be noted that many of these strandings/deaths may be due to other environmental conditions, which includes fresh water from sources other than the Bonnet Carre'.

#### Future Conditions

There is a potential for more dolphin strandings/deaths to occur.