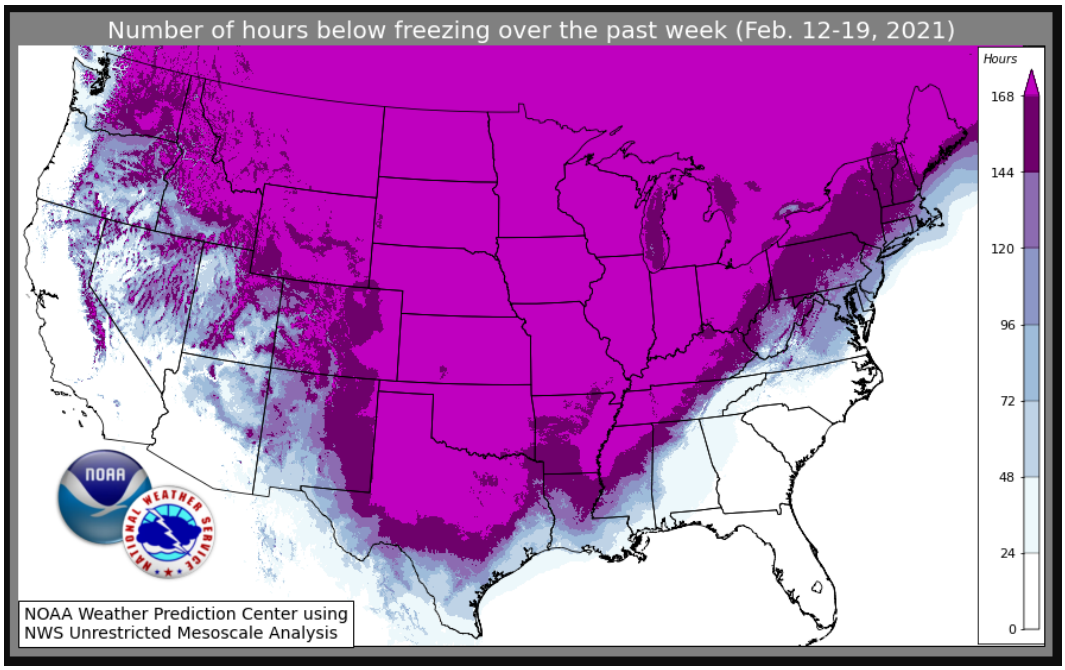
LDWF Office of Fisheries

Louisiana - Aquatic Nuisance Species report to GSARP, Spring 2021

February Freeze Impact on Aquatic Nuisance Species (ANS)

During the week of Feb 12 -19, 2021, a late season record cold event occurred. This event appeared to have an impact on the ANS species of the state. The freeze occurred late in the winter and water temperatures were already rising, so this may have helped mitigate the impact to the more tropical invasive species of the state.



COVID-19 Impacts:

COVID 19 has reduced the number of public events where LDWF distributes ANS outreach to the public. LDWF published social media posts during the year on apple snails and invasive vegetation. The reduction in COVID restrictions have allowed us to conduct our sampling efforts and increased public requests to hold outreach events. Time will tell if these events and attendance at these events reach the levels prior to the pandemic.

LA Invasive Species Project on iNaturalist:

A project was initiated where observations from members of the public are filtered on iNatualist to produce a list of all invasive species reported. This list of species and locations will be screened by the LDWF ANS coordinator to look for new invasive species and well as any range extensions observed. Any observations of interest may generate a site visit to determine if the report is accurate. This is a relatively new project on iNaturalist so its utility is still being evaluated.

Current status of established ANS

Apple Snail:

Public reports of Apple Snails have slowed to a few dozen since January, 2021. Reports in the last 2 weeks have increased but are not as prevalent as in years past for this time of year. Most reports were from known locations. The ANS Coordinator will monitor for any potential impacts of the freeze impacts on the northern reaches of the established Apple Snail range. The LDWF ANS coordinator visited an isolated private pond in Sorento, LA where Apple Snails were actively laying eggs and visible at dusk on the margins of the pond.

Asian Carp:

Preliminary work has begun on 2 projects that have been funded through USFWS's Lower Mississippi River Asian Carp Partnership and the Atchafalaya, Red and White Rivers Asian Carp Partnership. These 2 projects should assist LDWF in locating breeding areas and identifying potential locations for carp barriers. This year, LDWF is working through the partnerships to develop 4 projects which will help develop markets for Asian carp, investigate obstacles inhibiting commercial fisherman from

harvesting Asian carp, as well as studying the impacts of Asian carp on native commercially important fish.

Asian swamp eels:

Monopterus cuchia were found in Bayou St John, New Orleans in June, 2019. A local college professor continues to monitoring and sampling the population. No eels have been found since September 2020. It is unlikely they would have suffered any effects of the freeze due to their fossorial behavior and limited time below freezing in the area where they were located. Small eels were found in samples collected in Sept 2020. LDWF plans to monitor the area and sample in the Spring and Summer of 2021.

Lionfish:

LDWF's planned sampling during the reporting period was canceled due to COVID-19 restrictions on research cruises. LDWF received an extension on this grant and hopes to resume the sampling program this summer.

Tilapia:

Blue Tilapia (*Oreochromis aureus*) were found during routine sampling by LDWF in University Lake located in Baton Rouge in October 2019. Repeated sampling in 2020 has shown a reproducing population. The February 2021 freeze kept the Baton Rouge area under 40 degrees for 137 hours and below freezing for 94 hours. A member of the public sent a photograph of a decomposing tilapia so we expected a reduced population due to the freeze.

In late February, Sampling efforts did not find any tilapia in areas where a small number of tilapia was found in prior years. On March 29 2021, the LDWF ANS coordinator and Inland fisheries staff electrofished the area of the lake where tilapia were found in previous years. The effort did not produce any tilapia. However, a member of the public reported 8 to 10 large dead fish in the days after the freeze. She described the dead fish as similar to the shape of bluegill with bigger fins. This further suggests that the tilapia did suffer a freeze kill. LDWF will continue to sample and remove tilapia as manpower allows. LDWF has a long term dataset on the lakes which will allow us to track any impacts to native fish if the population is found to still be thriving.

Aquatic Plant Control Program:

The program is housed within the LDWF's Inland Fisheries Section. The freeze in February 2021 appears to have helped with aquatic plant control. The lakes in north Louisiana including Turkey Creek Lake, Lake Darbonne and Caney Creek Reservoir were not showing any active vegetative growth by the end of March indicating that a substantial giant salvinia die off has occurred. Other more heavily invested lakes such as Caddo Lake, Lake Bistineau, Black Lake, and Saline Lake have begun to exhibit vegetative growth. In south LA; minimal amounts of salvinia have been found. Pockets of salvinia have started actively growing as temperatures have begun to increase. Water hyacinth will continue to be the biggest aquatic plant problem in south LA as the surviving plants have stared actively growing. Statewide spray crews are concentrating their efforts in areas with chronic giant salvinia problems. The picture below shows the typical freeze die off in dense stands of salvinia along with surviving plants that will eventually repopulate.