

**Louisiana Report
GSARP Update
Spring 2014**

MARINE SPECIES

From early Nov 2012 to July 2013 there were no reports of Tiger Shrimp. From August 1, 2013 to Nov 2013 there have been approx 50 confirmed reports of tiger shrimp. Many of these shrimp appear smaller than years past and there is an early increase in the red stripe variant than previous years. One shrimper has reported catching 15 in a 10 day period but only turned in 6 of those. Two live tiger shrimp were housed with a small white shrimp for almost 2 months before one of the tiger shrimp died. Both of the remaining shrimp died within days of each other with no predation or attempts of predation were observed during that time.

LDWF has made contacts within the commercial diving industry that has yielded a handful of reports of lionfish. This contact will be re-established as the water warms up. Most of these reports are related to lionfish stings. This is a major concern for this industry in loss man hours.

INLAND SPECIES

Aquatic Plants

The Louisiana Department of Wildlife and Fisheries (LDWF) treated 99,508 acres of nuisance aquatic weeds in 2013. These herbicide applications were completed by both LDWF spray crews and private spray contractors. Statewide fall aquatic weed estimates for our major nuisance species during the past five years are found in Table 1.

Areas previously controlled by the U.S. Army Corps of Engineers (USACE) remained a priority throughout 2013, especially large areas of the Terrebonne marsh and Henderson Lake. Private applicators and LDWF sprayers treated a total of 27,618 acres in these areas in 2013. The majority of this effort was directed toward water hyacinth control, but some giant salvinia was treated as well. The USACE Removal of Aquatic Growth Program will resume in 2014 on a limited basis. They will aid LDWF by providing some water hyacinth control effort in Henderson Lake, and Bayous Lafourche, Terrebonne, Grand Caillou, Petite Caillou, and Pointe au Chien.

Giant salvinia has been a major focus of aquatic plant control efforts in Louisiana since 2006. The combination of herbicide applications, water level fluctuation, and biological control is being used to keep giant salvinia coverage at a level that allows for recreational use of the waterbodies. The unusually cold temperatures and multiple freeze events associated with the past winter should significantly reduce the amount of giant salvinia present this spring, especially in north Louisiana. An aerial survey of Lake Bistineau in early March revealed that less than 100 acres of the plant was currently on the lake which contained more than 3,000

acres of coverage prior to the drawdown in 2013. Although winter effects on aquatic vegetation have been considerable, concentrated spray efforts in 2014 will be necessary to prevent access issues because of the accelerated growth rate of the plant. It is expected that spray effort will be less than in previous years due to the reduction in biomass.

Giant salvinia weevil stocking and monitoring efforts will continue in 2014. Weevils from the USACE ERDC in Lewisville, TX should be available in April and those from the nursery ponds in Houma may be ready for harvest in May. January and February weevil samples indicated that overwintering took place in Saline Lake, Turkey Creek Lake, and Cross Lake in north Louisiana despite the unusually cold temperatures. This is encouraging considering winter survival had been extremely poor in these waterbodies in the past and has virtually made weevil control a non-factor in this part of the state. It appears that weevils continue to increase their level of control on giant salvinia infestations in south Louisiana. New infestations in Henderson Lake and the St. Bernard marsh have been stocked with weevils since 2012. Weevils will continue to be stocked, and established populations are expected to exhibit some level of control on these infestations in 2014. Herbicide applications will be necessary to maintain access in some areas, but the weevils seem to be slowing the growth rate of the plant significantly.

In 2014, LDWF and the LSU Agricultural Center will be entering into an agreement to research and develop a population of cold-tolerant weevils for use in north Louisiana. Weevils that survived the recent winter in north Louisiana lakes will be the foundation of this population. As the population builds, it will continually be exposed to low temperatures in growth chambers to select for those individuals that can survive a cooler winter climate. After many generations and several cold exposures, it is expected that we will have access to a cold-tolerant weevil population that can be mass produced for stocking across north Louisiana. The LSU AgCenter will also be researching factors that may contribute to winter survival such as habitat type and flight ability.

Table 1. LDWF Spring Weed Estimates for 2009-2013.

Plant	1 st Year	Acres of Infestation				
		2009	2010	2011	2012	2013

Water Hyacinth	1884	122,153	102,120	96,130	65,275	89,810
Hydrilla	1975	89,692	75,550	62,800	37,725	47,618
Common Salvinia	1980	190,598	101,980	44,310	46,410	33,960
Giant Salvinia	1998	17,292	8,415	38,805	52,400	45,354

Inland animals

Apple snails continue to be reported in more of the canals in the New Orleans area and the upper Barataria Basin, indicating either range expansion or improved reporting by the public. Some new reports have occurred in City Park and Bayou St. John in New Orleans. Bayou St. John is now open to tidal influence from Lake Pontchartrain so the potential for the snails to move further is possible.

Apple snails were reported to the ANS coordinator at an outreach event by a young child. After discussion with the child's parent and field investigation apple snails have been found in Ascension parish in small roadside ditches, neighborhood ponds and in Bayou Manchac which drains the area. This population will be monitored this year to see if it survived the extreme cold weather this past winter. So far no snails have been found and no eggs have been seen.

RESEARCH

LDWF 2013 ANS grant to survey selected public urban ponds in Baton Rouge and Lafayette for the presence of ANS is complete with the exception of some analysis. Plants, invertebrates and

fish were sampled in Baton Rouge and Lafayette. The only exotic species found so far in the samples were plants.

The 2014 ANS grant will be used to look at the trophic effects of Asian carp on some LA oxbows.

LDWF received a USFWS grant to extend and expand our 2012 ANS grant for drift net sampling for Asian Carp. We have finished our first summer of sampling ichthyoplankton and we are currently analyzing the samples to determine the presence, relative abundance and distribution of Asian carp. This baseline information from 2012 will be used to model distributions, understand recruitment and metapopulation dynamics, assess impacts, and inform management of these aquatic invasive species. The 2013-2014 grant will be used to expand sample site coverage and help further our understanding of these species.

OUTREACH

A large effort is being made for better public outreach/education of ANS.

- LDWF Extension section:
 - 3 Seafood Promotion Gatherings
 - 6 Public Festivals
 - 3 Boat Shows
 - 5 Exhibitions
 - 1 cub scout day camp
- Facebook: LDWF is taking full advantage of the social media network, posting brochures, links, and articles about ANS species/concerns. To date, information on Tiger Shrimp, Rio Grande Cichlids, Lionfish, & Northern Snakehead have been shared.
- The revision of the state wildlife action plan is underway and the Introduced and Exotic Species section will be expanded in this version. This will hopefully result in an increase in State Wildlife Grants to provide needed research on ANS species. So far one ANS related grant has been submitted for funding.