

Louisiana Deer Report

2013-2014

LDWF Wildlife Division

August 18, 2014

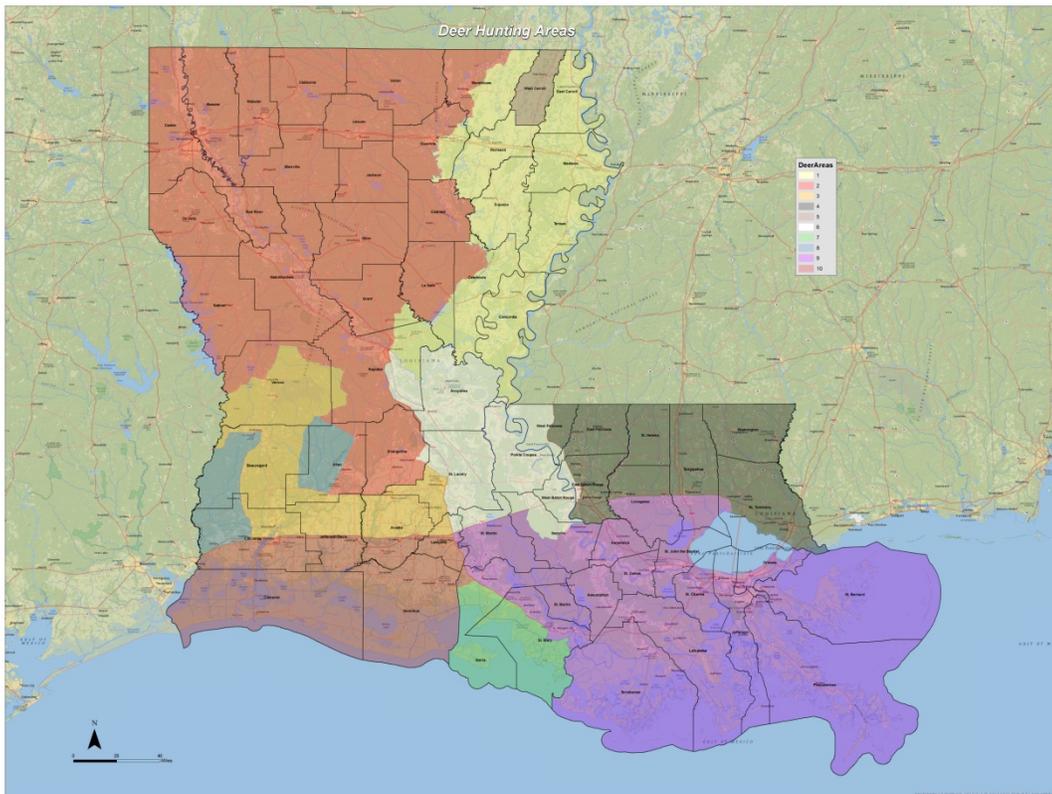
Introduction

The Louisiana deer program is administered by the Office of Wildlife and implemented through 6 field offices where wildlife biologists and technicians perform year round research and management activities on public and private lands. The state is presently divided into 10 deer management areas (DMAs, Figure 1).

Seasons are set according to general breeding periods, habitat productivity, and landscape features. The statewide limit is 2 antlered, 1 either sex, and 3 antlerless deer per year. Antlerless deer may be taken during the entire season in DMAs 1, 2, 3, 6, and 8. IN DMAs 4, 5, 7, 9, and 10, antlerless hunting will only be allowed on designated days. All deer must be tagged prior to being moved from the harvest site.

All deer must be reported through the phone or internet system, a wildlife management area (WMA) worker, or the Deer Management Assistance Program (DMAP). This harvest information along with other data is used to develop deer seasons and regulations.

Figure 1. Louisiana Deer Management Areas, 2014-15.



Harvest

The deer harvest improved during the 2013-14 season. It was one of the coldest winters on record with many sub-freezing temperature days across much of Louisiana. Cold weather increases deer movement as they forage for food resources to maintain the calories they need for body maintenance. A low acorn crop combined with the cold weather made deer more vulnerable to harvest in food plots, where many hunters primarily hunt.

Fawn recruitment is expected to be better this year where adequate habitat exists. Abundant and steady rainfall provides the soil moisture necessary for plant growth and good growing conditions for natural forages. The spring and summer months are critical to females due to the high nutritional demands of fetal development and lactation. Timely rainfall and adequate habitat provide the new growth plant material needed to meet the high protein and energy requirements to raise fawns.

High mosquito populations can reduce fawn survival. Hunters should also remember that the 2009, 2011 and 2012 droughts could still be impacting deer populations through reduced cohorts and the lag effects of maternal stress.

Anecdotal reports of hemorrhagic diseases (HD) were much reduced during the 2013/14 vs. the record year of 2012/13. We are just entering the period where HD mortality is most prevalent. Time will tell what impact HD will play this year, but it is not expected to be any worse than a normal year.

Hogs continue to be a primary concern. Research shows that deer and hogs do not mix and that deer can be displaced by hogs. Research has shown that deer detection rates can be up to 49% less where hogs occur. Hog populations affect deer numbers through direct competition for food resources and fawn predation. Hogs carry infectious diseases such as Leptospirosis, brucellosis, and pseudo-rabies. Wildlife veterinarians are studying the impacts of these diseases on wildlife species. The mail survey hog harvest estimate was 183,600 (+14%) and again higher than the deer harvest estimate. There is little doubt that feral hogs are impacting deer densities in Louisiana at this time.

The number of deer tags issued continues to trend up (Table 1.)

Year	Tags		
2008-09	227,001		
2009-10	231,935		
2010-11	224,725		
2011-12	253,669		
2012-13	259,824		
2013-14	270,730		

Areas of concerns for the statewide deer populations continue to be:

Feral hog transport

Feral hog disease issues and population spread

Landscape scale factors:

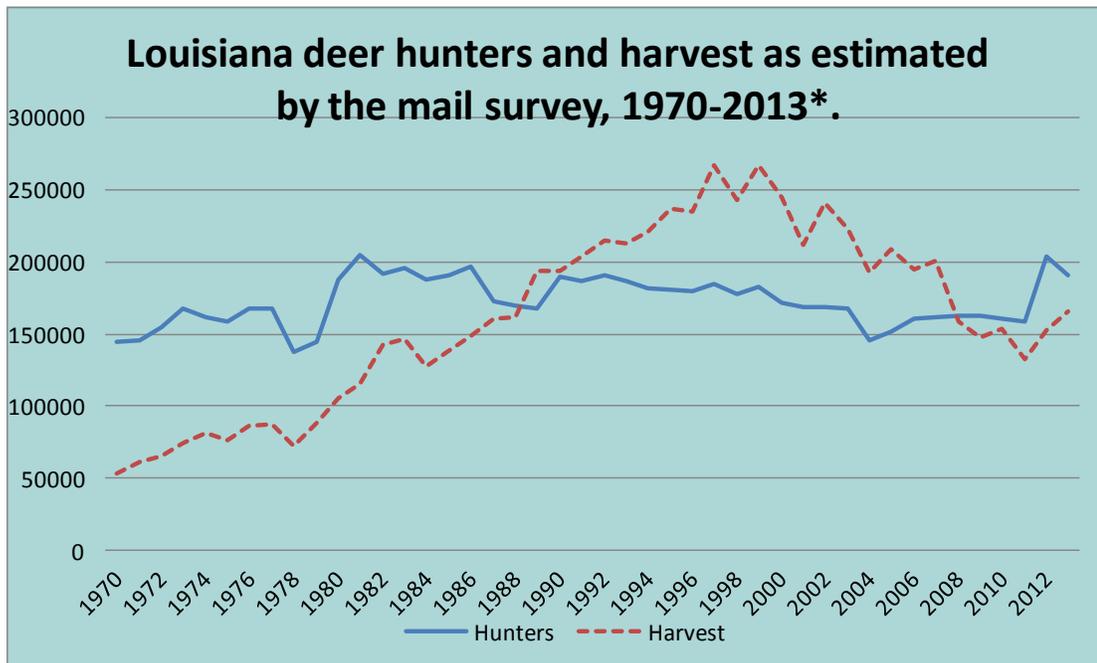
Residential, commercial, and energy development

Intensive forest management practices
 Fragmentation/Exurbia

Mail survey

A 6% sample of licensed hunters receives a harvest survey by mail. Participants return the survey and statistics are compiled. The mail survey index for hunters and harvest for the 2013/14 season is 191,300 and 166,200 respectively (Figure 2).

Figure 2. Mail survey estimate of Louisiana deer hunters and deer harvested, 1970-2013.



***= 2012 mail survey forward estimates for hunters and harvest include senior hunters (hunters >60).**

The hunter number index has increased the last couple years. The harvest sex ratio according to the 2013-14 mail survey was 56% male, 44% female. Deer hunters spent 3.8 million days afield during the 2013-14 season, and increase of 8% over the 2012-13 estimate.

The harvest allocation by weapon type (Table 2.) reveals that modern weapons are still by far the most popular method for harvesting deer in Louisiana. Bow and cross-bow harvests were similar to last year.

Weapon	Harvest	%
modern gun	134,200	81%
primitive	19,700	12%
bow	8,700	5%
crossbow	3,600	2%
Totals	166,200	

Internet/phone reporting results/total reported harvests

This year was the sixth year of mandatory tagging and reporting of deer through the system. The reporting system tallied 51,319 deer, an increase of 9.6% over last year, but still well below the base line year. The total reported harvest including WMA managed hunts and DMAP lands was 68,988 (Table 3). It is important for hunters to report their deer, so that complete data are available for future deer management decisions. There were 270,730 sets of deer and turkey tags issued in 2013-14. The sex ratio of the deer reported taken on non-DMAP private and public lands was 55% male and 45% female.

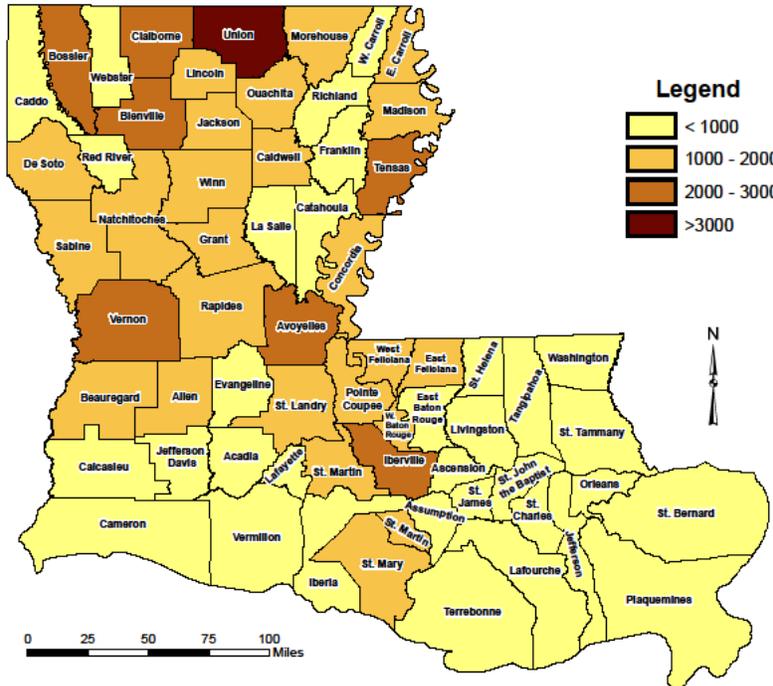
The top 20 total harvest parishes are presented in Table 4. The top 20 harvest parishes by forested acres per deer are presented in Table 5.

Year	Private	Public	WMA managed	DMAP	Total
2008/09	87,237	8,481	2,877	17,976	116,571
2009/10	78,444	9,035	2,335	17,641	107,455
2010/11	74,346	9,742	3,004	17,740	104,832
2011/12	53,860	5,596	2,526	14,396	76,378
2012/13	46,814*		2,425	14,039	63,278
2013/14	51,319*		2,713	14,956	68,988
*=-combined public and private					

Table 3. Top 20 harvest parishes in Louisiana derived from the reporting system through March 18, 2014.

Parish	Harvest	Parish	Harvest
Union	3,776	St. Landry	1,906
Bienville	2,978	Webster	1,867
Vernon	2,791	Jackson	1,770
Claiborne	2,740	Winn	1,764
Tensas	2,477	Madison	1,724
Avoyelles	2,186	Sabine	1,713
Bossier	2,130	Rapides	1,600
Iberville	2,125	DeSoto	1,528
W. Feliciana	1,910	St. Martin	1,451
Natchitoches	1,906	Morehouse	1,420

Total Harvest by Parish, 2013-2014



Mail survey vs. reporting system harvest-

The mail survey deer harvest index has been higher than the reporting system total harvest (Table 6). The mail survey index is best used to monitor trends over time and is not as an absolute count, as the reporting system is intended to be when all hunters report their deer.

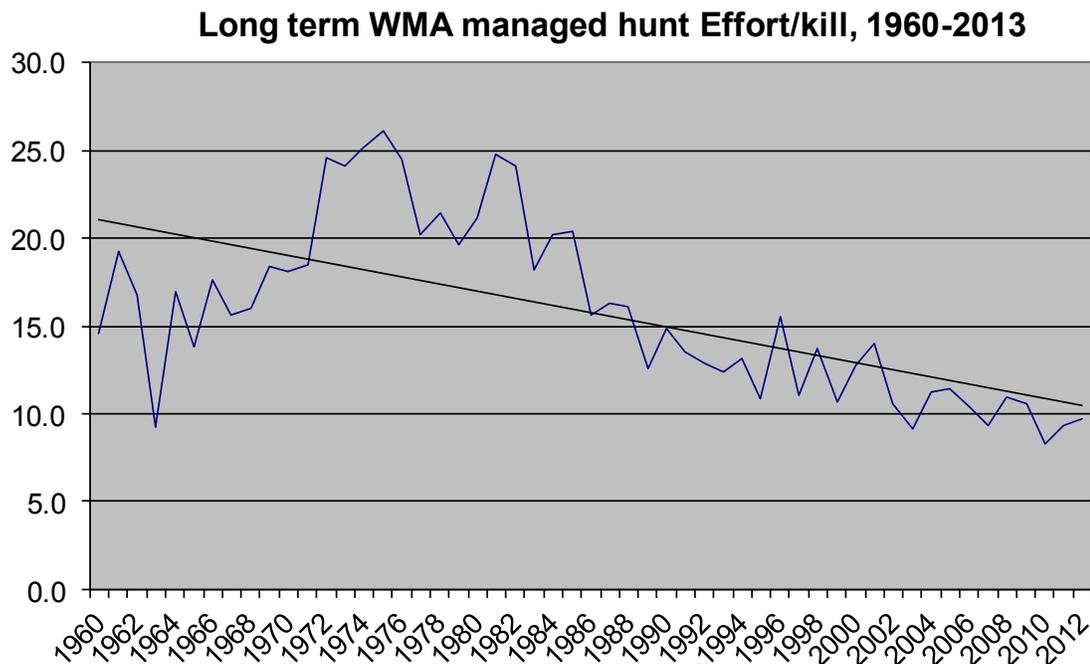
Year	Reporting system (all sources*)		Mail survey harvest index		Difference
2007/08	na		201,000		
2008/09	116,571	na	158,300	-21%	26%
2009/10	107,455	-8%	147,300	-7%	27%
2010/11	104,832	-2%	153,500	4%	32%
2011/12	76,378	-27%	133,000	-13%	43%
2012/13	63,278	-17%	152,800**	15%	58%
2013/14	68,988	9%	166,200	9%	58%
*= DMAP, WMA managed hunts, public and private reporting system total					
**= mail survey includes senior hunters for the first time					

Wildlife Management Areas-

The Department manages over 1,000,000 acres that provide deer hunting opportunities. Modern firearm, primitive firearm, and archery either-sex hunts are the primary methods for keeping deer numbers in balance with the habitat. Youth and handicapped hunts are also available on many areas. Bucks only seasons provide extended hunting opportunity and generally are held near or during the rut. Harvest rates are variable on the WMAs according to deer physiographic region, habitat conditions, and hunter efforts. In some years WMA harvest rates equal or surpass intensively managed DMAP properties. On some WMAs, harvest rates are low due to habitat type, forest conditions, accessibility issues, or other management objectives. In general, WMA deer herds are managed in a way that helps ensure long term forest regeneration, diversity, sustainability, and a healthy deer herd. WMAs are not managed for maximum residual numbers, but rather maximum sustained harvest and recreational opportunity, which means deer herds at or below maximum biological carrying capacity.

Conditions were good for managed hunts this year. Excellent 1.5 old male weights and adult female lactation rates were again observed on several bottomland WMAs. The recorded harvest for either-sex managed hunts was 2,654 deer on the WMAs this year (Table 7). Data were captured for a few more deer at other times (Appendix 1). Managed either-sex hunts had an average hunter success rate of 9.6 efforts per deer (Figure 3). The sex ratio of the managed either-sex hunt harvest was 50% male, 50% female. The total recorded WMA harvest, including self clearing data (SCD) was 5,652 deer (+11.5%). The minimum known harvest rate was 1 deer per 183 acres across all WMAs and habitat types. The known sex ratio for the total recorded WMA harvest, including SCD, was 57% male, 43% female.

Figure 3. WMA managed hunt effort per deer harvested, 1960-2013.



Hunter success and harvest vary, sometimes substantially, from year to year. The long term trend for WMA hunter success illustrates fewer efforts needed to harvest a deer. Additionally, many exceptional deer are harvested on the WMAs.

Disease

Disease monitoring is administered by the LDWF wildlife veterinarians and accomplished through necropsy efforts of sick or dead individuals when observed by Department personnel or when reported by the public. Herd health collections and managed hunts provide additional data and sampling opportunity. Biological samples are sent to the Southeastern Cooperative Wildlife Disease Study (SCWDS) at the University of Georgia, LSU's School of Veterinary Medicine, or the Mississippi Veterinary Diagnostic Laboratory for diagnostic testing.

Ninety-two samples were submitted for serological analysis of exposure to various diseases as part of the LDWF herd health monitoring program. These samples are used to evaluate the health status of the Louisiana deer herd. These samples revealed 57% seroprevalence for Bluetongue Virus and 66% seroprevalence for Epizootic Hemorrhagic Disease Virus. These results are expected following the severe hemorrhagic disease outbreak of 2012-13 and serve as a good illustration of the infectiousness of these viruses.

