



**Bowhunter Personal
Deer Observation LOG Book
2017-18 Hunting Season**

Observers Name:

PLEASE RETURN BY DECEMBER 1 TO:

LDWF DEER PROGRAM

P.O. BOX 98000

BATON ROUGE, LA. 70898

Table of Contents

The Purpose and Benefit of a Deer LOG.....	2
Explanation of Terms Used in the Deer Observation LOG.....	2
Guidelines for Collecting Deer Observation Data.....	3
How Deer Population Indices are Calculated.....	4
Relative Abundance.....	6
Sex Ratio.....	6
Fawns per doe/fawn recruitment.....	6
Age Structure.....	7
Deer Observation Forms.....	9

The Purpose and Benefit of a Deer LOG

A Deer LOG over time can prove to be valuable and give deer program biologist an indices of deer population trends if done correctly over a number of years. A consistent database of information on relative abundance, sex ratio, fawn recruitment and age structure can be gathered and monitored from year to year. This information can monitor trends from the club as well as the statewide “Big Picture” when collected from across the state. This information would bring an additional perspective to the picture of deer management in Louisiana.

Explanation of Terms Used in the Deer Observation LOG Book

Date: The date the observation was made.

AM/PM: The time of day when the observation period took place. AM is before 12:00 noon and PM is 12:00 noon and after. If the entire day is spent observing or hunting, divide the observations into AM (before 12:00 PM) and PM (12:00 PM or after).

Total Hours: Total number of hours spent observing deer during an observation period. This may include observations made while scouting, and approaching or leaving the hunting area. The number of total hours should be rounded off to the nearest 15-minute interval.

Area/Stand: The area or stand where the observation was made. The hunting club may want to make this information optional if the majority of hunters oppose giving this information. The hunting club may want to consider allowing this information to be confidential until the end of the hunting season. The information then could be submitted for analysis. If hunters do not want to be specific about their observation location, the property may be divided into larger areas and location be noted at a larger scale.

Bucks: Definition of point= projection 1” or longer. 1-3 points= number of bucks observed with 1-3 antler points. 4-7 points= number of bucks observed with 4-7 antler points. 8+ points= number of bucks observed with 8 or more antler points.

Does: Number of does observed that are 1.5 years of age or older.

Fawns: Number of male and female fawns observed.

Unknown: The number of deer observed that can not be distinguished as being a buck, doe, or fawn.

Parish: Please record the Parish where the observations were made. This is important for us to gain parish-wide level data.

Guidelines for Collecting Deer Observation Data

Instructions

Observation data is of no use if it is not collected accurately and consistently. If data are not collected properly, time spent collecting and analyzing the data will be wasted and correct management decisions can not be made.

To properly collect observation data, count every deer you see during each outing regardless if you see the same individual deer during more than one observation period. Individual deer may be counted more than once.

Because an index, not an absolute count, of population Characteristics is calculated from observation data, a count of every individual is not required. If a deer can not be positively identified as a buck, doe, or fawn, record it as “unknown”. Do not record the deer

as something if you don't know for sure. This can lead to inaccurate conclusions if a large amount of data follows this pattern.

The following calculations are provided for your interest. Computing these calculations can provide you information about your deer herd. **These calculations are not required.**

How Deer Population Indices are Calculated

Indices of deer population characteristics that can be estimated using observation data include the following:

- 1) relative abundance
- 2) sex ratio
- 3) fawn recruitment
- 4) age structure

The following is an example of estimating deer population indices using observation data:

Total observation hours	600
Total deer observations:	400
Adult buck observations	
(1.5+ years of age)	80
Bucks with 1-3 points	15
Bucks with 4-7 points	40

Bucks with 8+ points 25

Adult doe observations

(1.5+ years old) 160

Fawn observations

(male and female) 100

Index Calculations:

Sighting rate

Total Deer: 600 divided by 400 = 0.67

Adult buck observations

(1.5+ years old): 80 divided by 400= 0.2

Bucks with 1-3 points: 15 divided by 400= 0.04

Bucks with 4-7 points: 40 divided by 400= 0.1

Bucks with 8+ points: 25 divided by 400= 0.06

Buck:Doe Ratio: 160 divided by 80= 2.0 = 1:2.0 Buck:Doe

Fawn Recruitment: 100 divided by 160= 0.63 fawns / doe or 63% fawn recruitment.

Relative Abundance

Observation data can not be used to calculate actual deer abundance, but the data can be used to estimate trends (or indices) of abundance. From the above example, the sighting rate for total deer is 0.67 or 0.67 deer per hour. This is a starting point for future comparisons of total abundance of the population. If observer ability and habitat conditions are relatively constant over time, this sighting rate can be used as an index of total abundance. Observation data can also be used to estimate an index of components of the buck population. From the example above, the sighting data for bucks with 8+ points is a management goal, success of that goal can be measured by comparing the sighting rate of bucks with 8+ points over time. A sharp increase in any index is an indicator of an increase in the characteristic being measured, and a decrease indicates a decrease in the characteristic measured.

Sex Ratio

The sex ratio of a deer population is the ratio of does to bucks. More specifically, adult sex ratio and total sex ratio are estimated to make management decisions. The adult sex ratio is the ratio of adult does (1.5+ years of age) to adult bucks (1.5+ years of age) in the population. The total sex ratio is the ratio of all females to all males in the population. The total sex ratio includes fawns and the adult sex ratio does not include fawns. In our example 160 doe observations and 80 buck observations were made. The adult sex ratio is 160 divided by 80 or 2:1. The use of adult sex ratio is better than the use of total sex ratio for making management decisions because it indicates the number of adult bucks in the herd.

Fawns per doe/fawn recruitment

Fawn recruitment can easily be estimated using observation data. Fawn recruitment estimates can be used as an index of a deer population's nutritional status. In quality habitat, adult does can produce twins or triplets. If habitat quality is poor, fawn

recruitment will decrease. From the above example, fawn recruitment is calculated by dividing the number of fawn observations (100) by the number of adult doe observations (160), yielding a fawn recruitment estimate of 63%. This estimate can also be viewed as 63 fawns/ 100 does or 0.63 fawns per doe.

Age Structure

Age structure of a deer herd can be determined by aging lower jawbones of harvested deer with age determined based on tooth wear and replacement. However, if selective buck harvest is employed, determination of age structure may be biased. Observation data can provide a better estimate of age structure if selective harvest is used. Bucks and does can be classed as fawns, yearlings, and 2.5+ years old. With more experience, observers can age bucks as fawns, yearlings, 2.5 years old, and 3.5+ years old.

Date	AM/PM	Total Hours	Area/Stand	1-3 pts	4-7 pts	8+ pts	Does	Fawns	Unk.	Parish

If you would like to continue assisting LDWF in collecting this data in future years, please provide your contact information:

Name: _____

Address: _____

City: _____ **State:** _____ **Zip** _____

E-mail: _____