

WILDLIFE SURVEYS

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WHAT ARE SURVEYS

Wildlife surveys are used to quantitatively monitor changes in population characteristics for a given species

Census

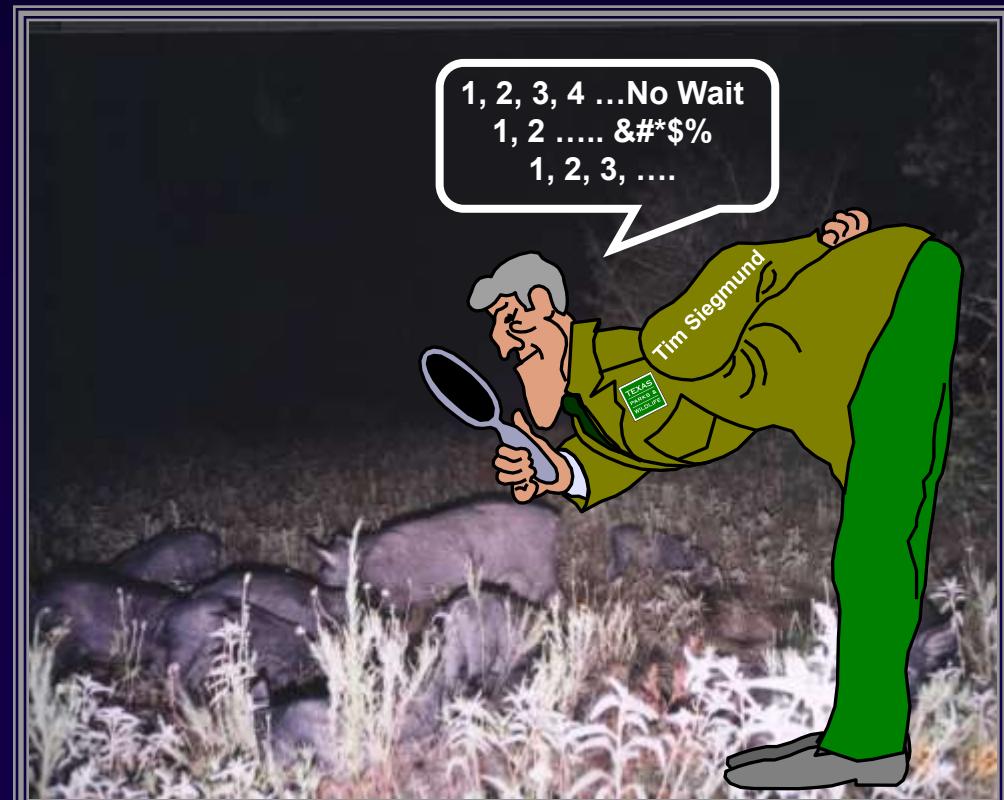
A total count of the population

Usually impractical for wildlife

Survey

Made from a subset of the population

Commonly used for wildlife



2 TYPES OF SURVEYS

Direct

Counting individuals in a population

Examples include spotlight surveys, camera surveys, helicopter surveys

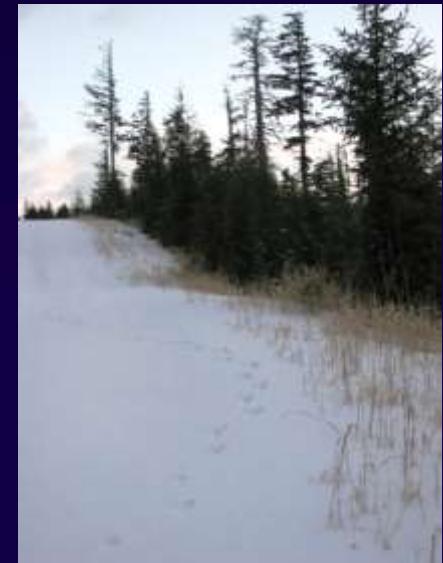


2 TYPES OF SURVEYS

Indirect

Quantifying wildlife sign

Examples include track counts, scat surveys, call counts, browse surveys



NO SURVEY TECHNIQUE IS FOOLPROOF

In order to provide meaningful information, surveys must be conducted in such a manner as to reflect actual changes in numbers or composition, as opposed to changes in methodology or timing.

Be as consistent as possible

Surveys before deer season 1 year and then after deer season the next

Bird surveys in May 1 year versus summer or winter counts the next

Alligator surveys in May 1 year versus August the next

Try to avoid bias

Differences in observers

Time of year

Time of day

Feeders and/or house deer

**While you can't always avoid bias,
you can recognize it is a source of
variation in the data**

<input type="checkbox"/> <i>Spotlight counts</i>	Targeted species:		
Length of route:		Visibility of route:	
Dates (3 required) A.		B.	C.
Additional Information:			

**Probably the most common deer survey in the Post Oak Savannah
(not necessarily for small landowners)**

**Can be used for predators, furbearers, deer, feral hogs, alligators, etc.
(if their eyes shine, you can count 'em)**

**Most assume that you are trying to count all of the animals when you do a
spotlight survey. But, you are really only trying to count a percentage of the
animals, which is based on visibility. The visibility, or visible acreage, is as
important, if not more important, than the actual counts.**

**Need to be as consistent as possible (route, dates, timing, weather, etc.)
between years**

Need a truck, at least 3 people, and 2 spotlights (not rechargeable)

Record numbers, sex, and age (antler quality if desired)

Standardized incidental observations

Targeted species: _____

Observations from: Feeders Food plots Blinds Vehicle Other _____

Dates: _____

Additional Information: _____

Most properties will not do this one

Simply record individuals of a species of interest (can be any wildlife species)

'Standardized' refers to repeatability and consistency over time

Can be performed for a variety of species



Stand counts of deer (5 one hour counts per stand required). Number of stands: _____

Dates: _____

Additional Information: _____

Was commonly used for small acreage properties until the invention of infrared-triggered cameras

Used for deer only; record numbers, sex, and age (antler quality if desired)

Dates need to be consistent between years

Usually recommend a minimum of 1 stand per 50 acres



Aerial Counts Species counted: _____

Type of survey: Helicopter Fixed-wing

Percent of area surveyed: Total 50% Other: _____

Additional Information: _____

**Not commonly used in the Post Oak Savannah, although it can be
Cost-prohibitive, need experienced pilots
Can be used for predators, deer, feral hogs, quail, etc.
Most assume a census**



Track counts: Predators Furbearers Deer Other: _____

Additional Information: _____

Most properties will not do this one

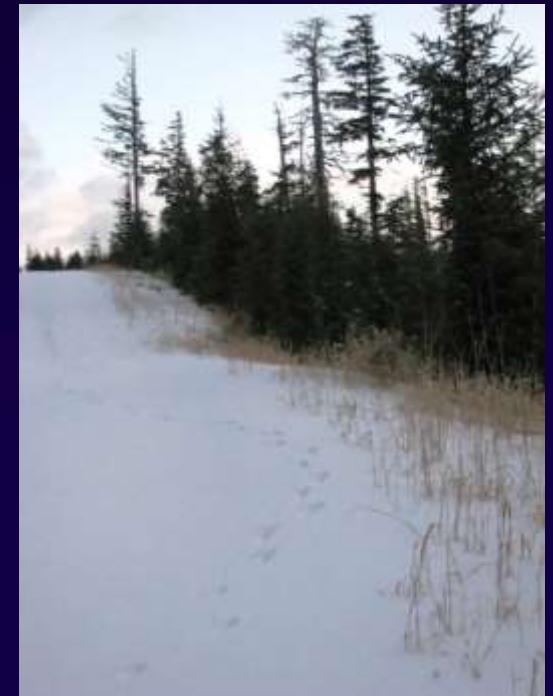
Rarely used, especially given infrared-triggered cameras

Can be used for animals rarely seen, especially for presence-absence

Mainly used for furbearers and predators

Drag or sand an area, quantify and identify tracks

Need consistent methodology for meaningful data



Daylight deer herd/wildlife composition counts

Species: Deer Turkey Dove Quail Other _____

Additional Information: _____

One of the most common deer surveys

**Most useful when used in combination with spotlight and camera surveys
to ‘beef up’ herd composition estimates (sex ratio, fawn crop)**

Observations are recorded whenever at the property for a given time period

Record numbers, sex, and age (antler quality if desired)



- Harvest data collection/record keeping: Deer Game birds
 Age Weight Sex Antler data Harvest date

Additional Information: _____

Another common technique used across the state

Most are collecting this data anyway



Browse utilization surveys (thirty 12-foot circular plots required)

Additional Information: _____

Most properties will not do this one

As deer densities increase, you will see a greater amount of use on browse species

1st, 2nd, and 3rd choice browse plants

Timing and consistency is important (spring versus summer surveys)

Requires a knowledge of browse species

Results complicated by browsing pressure from other species



Census of endangered, threatened, or protected wildlife. Species: _____

Method and dates: _____

Additional Information: _____

Most properties will not do this one

Mainly used for chupacabras, bigfoots, mopanguaties, dragons, and unicorns

Census and monitoring of nongame wildlife species. Species: _____

Method and dates: _____

Additional Information: _____

Should be covered by one of the other techniques

Miscellaneous Counts: Species being counted:

Remote detection (i.e., cameras) Hahn (walking) line Roost counts
 Booming ground counts Time/area counts Songbird transects and counts
 Quail call and covey counts Point counts Small mammal traps
 Drift fences and pitfall traps Bat departures Dove call counts
 Chachalaca counts Turkey hen/poultry counts Waterfowl/water bird counts
 Alligator nest/census counts Other: _____

Additional Information:

Remote detection with infrared-triggered cameras

Relatively inexpensive, fun, useful for a variety of species

Probably the best technique to survey deer populations on small acreage in the Post Oak Savannah (in association with incidental observations)

For deer, use 1 camera location per 167 acres

Cameras should be placed over bait, but not at a feeder (feeders should be turned off for the survey period)

Cameras should be active for 14 consecutive days

Set the camera to take 1 photo per 5-minute interval



CAMERA SURVEY

At the end of the survey period, tally all deer according to bucks, does, and fawns

Determine the number of individual bucks

Calculate a correction factor by dividing the number of individual bucks by the total number of bucks

Multiply the total number of does and total number of fawns by the correction factor

Add up the corrected number of bucks, does, and fawns to arrive at the total population size

CAMERA SURVEY



Total number of identified deer = 677

Total bucks photographed = 98

Total does photographed = 536

Total fawns photographed = 43

Number of individual bucks photographed = 5

Correction factor – 5 / 98 = 0.0510

Corrected Herd Composition

Bucks = 5

Does (536×0.0510) = 27

Fawns (43×0.0510) = 2

Total Deer = 34

Density – 750 acres / 34 deer = 22.1 acres per deer

Sex Ratio – 536 / 98 = 5.5 does per buck

Fawn Crop - 43 / 536 = 0.08 fawns per doe

OTHER CAMERA USES



OTHER CAMERA USES



Stealth Cam 07/23/2011 21:17:16 ☽ 91F



Stealth Cam 06/30/2011 08:16:27 ☽ 79F

OTHER CAMERA USES



Stealth Cam 07/27/2011 05:55:57 C 73F



Stealth Cam 07/14/2011 11:22:02 ● 93F



Stealth Cam 05/11/2011 15:33:24 D 95F



Stealth Cam 07/12/2011 23:11:10 ● 84F



70F 06/27/2014 08:15AM MOULTRIECAM



Stealth Cam 05/25/2011 11:54:50 C 95F

OTHER CAMERA USES



OTHER CAMERA USES



A photograph of a sunset or sunrise over a landscape. In the foreground, the dark silhouette of a pine tree stands on the left, its branches reaching upwards. To its right, a large, rounded bush or small tree is visible against the bright sky. The sky itself is a dramatic canvas of colors, transitioning from deep orange and yellow near the horizon to a darker, more muted blue-grey higher up. Numerous wispy, white clouds are scattered across the sky, catching some of the remaining light. The overall atmosphere is peaceful and suggests the end of a day.

**GOOD LUCK!
HAVE FUN WITH IT!**