Deer Management needs to be Site Specific

In this article I want to explain why Deer Management needs to be performed on a specific site or area basis. I wish I could tell you how many acres need to be analyzed in order to come up with the dynamics of the deer population in that area but it's not that simple. It could vary every 1000 acres or maybe 100,000 acres. Where we hunt there is a planted pine plantation not far away that is not conducive to holding a lot of deer. There isn't much browse, cover or water and yet there are people hunting this plantation. I assure you that the carrying capacity of this property is a lot lower than the carrying capacity of our immediate area where we have good browse, cover and water.

Let me explain what I mean by the dynamics of a deer population. The first three are ***estimated*** either through a camera survey or through observation counts.

Doe to Buck ratio: This is how many Does there are in relation to how many Bucks there are. If there are twice as many Does as there are Bucks then the Doe to Buck ratio is two to one (2 : 1). (Fawns are not included in this ratio)

Fawn Recruitment: This is how many Fawns are being recruited into the deer population in early fall. The best way to do this is by calculating a fawn recruitment rate which is the ratio of fawns to Does. So a count of 10 Does and 7 Fawns would give us a recruitment rate of .70

# of individual Bucks: This is how many different Bucks are on this property or in this area. (This count excludes Buck Fawns)

Mortality Rate: This is how many deer are dying from causes other than hunting. You can call it natural mortality if you want. Some examples are disease, predation, winter kill, road kill etc. Of all the factors we estimate this is actually the most difficult but again it can vary tremendously from area to area.

Carrying Capacity: What this means is how many deer can live on this property or in this area and there be sufficient food for them to be healthy. There is a limit on how many deer can be on your property before the health of the deer diminishes and also the health of the habitat. Most areas have a limit on the food sources that are available, especially the food sources that provide the deer with the proper nutrition that they need to be healthy. In an overpopulation situation not only do the deer suffer but so does the habitat.

I can't emphasize enough the importance of estimating the 5 things I listed above for the property or area that you hunt. If you're hunting over 1000 acres or you're hunting under a high fence then you can come up with good estimates for that property. If you are hunting less than 1000 acres then try to work with your neighbors in determining the above. Even if I was hunting 50 acres I would keep track of the first three things I listed just to compare them season to season.

I have seen Doe to Buck ratios of 4:1 (4 Does for every Buck) and I have seen Doe to Buck ratios of .75:1 (which is 3 Does for every 4 Bucks). I am sure there are some ratios even higher and lower than these.

There is not one right ratio for every property/area out there. By just shooting Bucks the Doe to Buck ratio will increase. Where Doe hunting is allowed hunters can offset that effect on the Doe to Buck ratio. Because the number of Does you have will determine your fawn recruitment and in turn your deer population, it is important to keep track of your Doe to Buck ratio. Please read my article "*Why and how you manipulate your Doe to Buck ratio*" where I cover this in detail.

I have seen Fawn Recruitment rates of .40 (4 Fawns for every 10 Does) and I have seen Fawn Recruitment rates of 1.0 (10 Fawns for every 10 Does) I know there are ratios even higher and lower than these. Unlike the Doe to Buck ratio where hunters can influence that ratio, the Fawn Recruitment rate isn't something we can change very easily. It has been proven that a healthy Doe can recruit more fawns into the deer population than an unhealthy Doe. So, by making sure your deer population has all of the healthy nutrition that it needs may have a positive effect on your recruitment rate. This is known as habitat management. If predation is a big problem in your area then maybe reducing the number of predators will help your fawn recruitment rate. This is easier said than done. Please read my article "*Knowing your Fawn Recruitment Rate is Important!*" where I explain the importance of knowing your Fawn Recruitment rate.

Being able to estimate the number of individual Bucks on your property or in your area can be very beneficial. It's easier to do this on properties or areas less than 5000 acres but it can certainly be done on larger properties. Please read my article "How you determine how many different Bucks you have" to see how we do this. Doing this each season allows you to compare your counts season to season and you will know with certainty if your Buck population is changing significantly.

Estimating the mortality rate is the most difficult factor to come up with. Some states have established estimates that you can use as a guideline. How many deer carcasses do you find throughout the year? Because I hunt in the south the mortality rate is somewhat consistent. The main causes for mortality for us (excluding hunting), is predators, road kill and disease. It seems that each year we have 1 or 2 Bucks that are showing signs of pedicle damage. Unfortunately this pedicle damage can lead to a brain abscess which may be a death sentence for that particular Buck. Now if you're hunting in the north where winter kills can occur or an area where CWD or EHD exists, you will find that your mortality rate can change drastically from year to year.

The carrying capacity can vary tremendously from area to area. One area may be able to hold and offer good nutrition for 10 deer per square mile while another area may be able to hold and offer good nutrition for 80 deer per square mile. Doing a browse impact study will help you determine if your deer population is within the carrying capacity of your property/area or if there is an overpopulation of deer. There are articles available on how to do a browse impact study if you want to try this yourself or maybe a state wildlife biologist will be able to assist you. As the forest/habitat matures you could see the carrying capacity change along with it. This is where land management comes into play to make sure you are keeping your habitat favorable to wildlife and the carrying capacity at the level you want.

So, now that you see how the dynamics of a deer population can change from area to area you can also see how deer harvest requirements will vary from area to area. How many Bucks should you shoot? How many Does should you shoot? (if legal)

The next thing I want to cover is "Selective Harvest"? This can encompass a lot of different scenarios of which I will just list a couple of examples. This should also be decided on a site specific basis.

1. You do not (or at least try not) to shoot any fawns or yearling Bucks. With time afield and studying of pictures from your own area most of your hunters should get pretty good at identifying fawns and yearling Bucks by recognizing their body characteristics. The most common mistake usually made is mistaking a Button Buck for a Doe or maybe thinking a yearling Buck is older because he has nice antlers.
2. You do not shoot a Buck unless you feel he has reached an older age class. This is similar to #1 except that you are even passing up 2 ½ and maybe 3 ½ and older Bucks as well. The best way to do this is by being able to estimate the age of the Buck on the hoof. Ignore the antlers and just focus on the body characteristics. Again, with time afield and studying of pictures from your own area most of your hunters should get pretty good at ageing your Bucks at least into four main groupings. (Fawns, 1 ½ year old yearlings, 2 ½ and 3 ½ plus) Some hunters are even pretty good at ageing the Bucks over 3 ½ but the accuracy level does go down.
3. You can only shoot a Buck if he meets certain antler restrictions. These antler restrictions may be a certain number of points on one side, a certain outside or inside spread (usually outside the ears), a certain gross score or maybe a certain base circumference. This is where things can go really bad. Too often I hear that a hunt club has implemented an antler restriction and they never analyzed the antlers on the Bucks harvested in their own area. This can be a big mistake. If you make a Buck harvest restriction that the antlers must be outside the ears when the ears are up then you're assuming that most every Buck that is older (3 ½ plus) will have antlers outside the ears. I can assure you that there are many areas where this doesn't hold true so the outside spread requirement should Not be used. In the advanced version of our software we provide a report that allows you to analyze the antler characteristics of Bucks that you have harvested. If you analyze 3 years of harvest history you will be able to confidently establish an antler restriction **if** one will work for you. There is nothing worse than having a wrong antler restriction because you end up protecting some Bucks for possibly their entire life because their antlers will never exceed the antler restriction. One Buck here and one Buck there isn't a problem but if you are inadvertently protecting 20% or more of your 3 ½ and older Bucks then you are doing what I call reverse management. Imagine it being illegal or against your rules to shoot a 5 ½ or 6 ½ year old Buck because his antlers don't meet your requirements. This is actually happening in some places today.

In summary, by keeping some simple records of all the deer that are shot on your property along with a camera survey you can educate yourself on the deer population on your property or in your area. More and more hunters and hunt clubs are becoming proactive in the monitoring and managing of their deer populations. Make management decisions based on your own facts and not what other people are doing. The dynamics of their deer population could be entirely different than the dynamics

of your deer population so you need to make decisions based on your own specific situation. Please watch my video "*Why Deer Management needs to be Site Specific*" where I show you samples of two properties that have different Fawn Recruitment Rates and different Mortality Rates.