## What can landowners do to manage white-tailed deer?

"What can we do about all the deer" is a comment that I hear most frequently these days. It seems like many forest landowners experienced a difficult time this year with deer being the culprit in damage perceived and observed around the home and woodlands surrounding it. For the forest landowner managing the forest, these issues can become serious when the next crop of trees is severely impacted by deer browsing. In Rhode Island, as in other states, we rely on hunting as our primary and preferred method to control deer numbers as history has proved it to be most effective. In some cases and for a variety of reasons, hunting is not as effective as it potentially could be, so an understanding of this is needed and changes are necessary. The use of damage permits is often suggested as the answer to the problem, but in reality it may not be.

The deer "problem", so to speak, is filled with emotion, often with lynch mob zeal by those most impacted, and that is understandable. The ecology of the forest and deer are quite complicated so as a result there is no easy answer. Just advocating for deer nuisance permits for forest landowners is an overly simplified approach that may not resolve this issue entirely. It has been my experience that landowners can exaggerate and this includes both the level of damage and how much hunting is actually occurring on the site. The deer is a natural product of the forest and is a valuable commodity, whether it is for meat and/or recreation and most forest owners understand this. The first and most important issue is allowing access for hunters, getting sufficient hunting pressure and a commitment from the hunter team given permission to hunt the land. It's important that the landowner communicate their management objectives and those should be to remove antlerless deer during the season. Over time a commitment to this practice will result in less damage impacts by deer on the property, but it takes a concerted effort. I hear that some landowners either don't trust hunters or want to limit access to hunting to a just few friends or family, but without recognizing there may not be a sufficient level of skill, commitment or effort or remove sufficient numbers of deer by these hunters. Therefore the results are disappointing and the deer problem continues. In addition, hunting and removing bucks (a preferred choice of some hunters) will not address the issue, especially if the chosen hunter is passing on female deer while waiting for "the buck". This necessitates landowner and hunter talking about the landowners' management objectives and getting commitment by the hunter to carry this out. One solution being developed by DEM is to connect forest landowners with hunters who are better trained, prepared and understand the commitment necessary to carry out a deer management plan.

Forest management objectives and practices can also aggravate the impacts caused by deer. Experience has shown that small forestry thinning projects or silvicultural projects with limited acreage (<1acre) can often experience larger impacts by deer, which one reason why we recommend larger projects when they are possible, the other reason being that some of the wildlife we are managing for require larger patch sizes to live in to escape problems with predators and other limiting factors. The ecology of the forest also comes into play with regard to natural food supply which, can vary with environmental conditions. These natural conditions can vary year to year and can help explain hungry deer eating everything in the forest. The fall of 2013 was such a year when there was generally acorn mast failure that had the effect of causing higher impacts by deer on the limited food resources (acorns and forest regeneration) available, which made 2013 a year filled with many deer complaints. It is important to understand these ecological associations. Another issue, rarely talked about, is that Rhode Island forest regeneration and forest soils may also be suffering from the impacts caused by an invasive species, the earthworm, that has homogenized the forest soils and in some areas is changing the conditions of the understory and resulting regeneration. This further complicates the issues.

The solutions we need can be achieved; however, a better dialogue between deer managers and forest landowners is necessary. The momentum is now available to do this and as a result we hope to have as a result, both a healthy forest and deer population in balance with it.