



TWICE IS NICE: New Double-Count Survey Technique

By Travis Barrett

When it comes to the ‘why’ of deer and moose management in the State of Maine, Lee Kantar has very succinct reasoning.



“When it comes to big-game species for both hunting and viewing, we need to be on the map,” said Kantar, the lead deer and moose biologist for the Maine Department of Inland Fisheries and Wildlife. “It behooves us to have staff that knows enough about the ins and outs about moose and deer to manage those populations.”

Kantar is one of the reasons that Maine is at the forefront of moose management. We are one of just 16 states in the United States with a moose population and one of only 12 with a moose-hunting season. In the U.S., only Alaska has a larger population.

Recently, Kantar attended the North American Moose Conference, where he presented an abstract for an upcoming paper on the “Double-Count Survey.” It’s a relatively new study model that was successfully adopted in nearby New Brunswick, Canada.

“It’s really big,” Kantar said. “We believe this survey technique will provide us with an accurate means to estimate Maine’s moose population and hopefully provide a clearer picture of the status of moose across the state.”

In an effort to help rebuild a deer herd in Maine that's been challenged by recent harsh winters, predation and an ever-changing landscape, the Department recently enacted Maine's "Game Plan For Deer" – a plan to increase the herd, particularly in the northern, eastern and western parts of the state.

Moose present a different and unique set of circumstances for biologists.

The population has steadily increased, and Maine's moose hunt has remained popular. As the hunt has continued to grow, Kantar felt an improved population model was necessary. He looked at New Brunswick's Double-Count Survey technique and noticed its effectiveness on their deer herd.

It seemed a natural fit to him when it came to modeling Maine's moose.

"(The North American Moose Conference) is a great opportunity to learn, share ideas and create relationships with guys who have been doing this for decades," Kantar said of networking with other big-game wildlife biologists in North America. "You want to look at what's of interest to your colleagues and ask, 'Can we apply this to other places and get the same resolution of data?'"

The Double-Count Survey in Maine, the first of its kind in the state, is a better fit for moose.

"You need a lot of the (target) species on the landscape. It wouldn't work for deer in northern Maine or for moose in southern Maine," Kantar said. "(The Department) has tried numerous other techniques to count moose but due to constraints on everything from resources to staffing to terrain, things haven't really come together until now."

"If you do a survey and get five moose per square mile, and your plus or minus margin of error is three moose, what do you really have?"

The Double-Count Survey technique divides priority districts into blocks of 100 square miles that represent the best moose habitat. The 25-mile long block is then further divided into seven transects spaced six-tenths of a mile apart, spaced enough so that the same moose won't be seen twice. As the transects are flown by helicopter at a low elevation, moose are counted by two people on the same side of the aircraft, one in front and one in the back.

"With straight counting, there's no way to relate the numbers to what you see," Kantar said.

With the Double-Count technique, however, a much truer picture of the species' population is drawn.

Zones 2, 3 and 6 were counted in the winter of 2010-2011, with help from the Maine Forest Service and an Outdoor Heritage Fund grant. Kantar plans to fly some of the same zones again this coming winter, and he said that ideally there will be enough time and funding to do Zones 1-6.

“I’m always looking at what Quebec and New Brunswick are doing, because they’re a lot like we are here,” Kantar said. “Where are they going? Why are they doing that? Especially when you have limited resources, why wouldn’t we take advantage of that knowledge?”

And with Kantar and other wildlife biologists within the Department paying attention to the successes of similar state and provincial agencies, Maine’s outdoorsmen benefit.