

# Department of Natural Resources SCI-MIC Supported Research Projects 2017 Progress Reports

## Northern Michigan Habitat Work Group

The Michigan Predator Prey study is nearing its conclusion after nearly nine years of study in the UP of Michigan. The study has sought to understand the relationship between white-tailed deer, their primary predators, and environmental conditions. The study has made extensive use of satellite radio GPS collars which were placed on bobcat, wolves, coyotes, black bears and of course white-tailed deer. The study has been supported by Mississippi State University, Safari Club International, Safari Club International Foundation, SCI Michigan Involvement committee, and Michigan DNR. The study's website is extensive and contains methods, findings, reports, video and photos of this world class research effort. For more information go to [www.fwrc.msstate.edu/carnivore/predatorprey/index.asp](http://www.fwrc.msstate.edu/carnivore/predatorprey/index.asp)

The predator prey study has revealed that, more than any other factor, winter weather conditions dictate the survival potential for white-tailed deer in any given winter. Severe winter weather in this region can be described as temperature extremes (to -40 degrees F) accompanied by deep snow which limits the movements of deer and prevents them from foraging for food. Prior to this research, many people believed that predators, especially the regions wolves, were responsible for the steep declines in deer numbers observed after back-to-back severe winters in 1995 and 1996, and 2014 and 2015. Our research has shown that the lack of quality winter shelter in the form of dense conifer stands is the main contributing factor to the survival of deer. Conifer cover in deer winter range (deer yards) has been diminished due to insect infestations such as the spruce budworm, indiscriminate cutting on some ownerships, and forest succession to trees that do not provide shelter. As a result of these poor habitat conditions, deer may suffer very high mortality during difficult winters, and pregnant does that survive to give birth produce fawns that have extremely high post-natal mortality rates. Some winters can result in the near total loss of the fawn crop. To take steps to correct the lack of quality winter shelter, the Michigan Natural Resources Commission (NRC) formed the UP Habitat Workgroup in 2014. The group's 13 members represent foresters, wildlife managers, private consultants, and sportspersons. Also represented on the panel are major UP landowners such as the Ottawa National Forest, Hiawatha National Forest, State of Michigan, and private industrial forest owners. To date the group has been supported financially by SCI, SCI Foundation, SCI Michigan Involvement committee, MUCC, UP Sportsman's Alliance, MDNR and from private donations. During the past three years that group, through its consultant, has developed a deeryard forest management plan for every deeryard in the UP, conducted public meetings to describe our work attended by more than 500 people, and worked to inform the public through multiple media outlets. The goal of this work is to reestablish suitable winter cover for deer, thus providing sustainability to this important resource that is a cultural, economic, and ecological cornerstone species of the Upper Peninsula. The UP Habitat workgroup is seeking grants to continue this work from the state of Michigan and we are hoping to partner with any other entity that would consider helping in this endeavor to manage critical winter shelter forest for Michigan deer.