

MDNR 2015 Research Project Progress Reports

Predator Prey Project – MIC SUPPORT REQUESTED TO CONTINUE FOR 2016

This cooperative study with Mississippi State University investigating the role of predators, winter weather, and habitat on deer fawn survival in the Upper Peninsula is one of the best-documented research projects conducted by the Michigan DNR. You can find progress reports and links to technical publications from this research project on the project's website:

<http://www.fwrc.msstate.edu/carnivore/predatorprey/index.asp>

This website can also be found by going to the SCI MIC site and linking from there.

<http://www.scimic.org/projects.html>

The project also maintains a Facebook page that is updated with current activities and interesting observations from the field. Follow the link below to keep up with the latest news:

<https://www.facebook.com/MIpredprey>

This past year we also prepared a report for Michigan DNR field staff summarizing the important findings and management recommendations from the work on phase 1 of the project in the low snowfall zone. These recommendations include ideas for deer management, deer monitoring, and hunter outreach. A copy of this report is on the project's website.

To date, the project has produced 16 peer-reviewed scientific papers with the following four papers published in 2015:

Bowman, B, J.L. Belant, D.E. Beyer, Jr, and D. Martell. 2015. Characterizing non-target species use at bait sites for white-tailed deer. *Human-Wildlife Interactions*: 9:110-118.

Stillfried M., J.L. Belant, N. Svoboda, D.E. Beyer, H. Hofer, S. Kramer-Schadt. 2015. When top predators become prey: Large carnivores alter movement behavior in response to perceived mortality risk. *Behavioural Processes* 120:30-39.

Duquette, J.F., J.L. Belant, N.J. Svoboda, D.E. Beyer, Jr., and P.E. Lederle. 2015. Scale dependence of female ungulate reproductive success in relation to nutritional condition, resource selection and multi-predator avoidance. *PLoS ONE* 10(10): e0140433. doi:10.1371/journal.pone.0140433

Bled, F., S. Summers, D. Martell, T.R. Petroelje, D.E. Beyer, Jr, and J.L. Belant. (accepted). Effects of prey presence and scale on bobcat resource selection during winter. *PLoS ONE* 10(11): e0143347. doi:10.1371/journal.pone.0143347

Partners: Safari Club International-MIC; Safari Club International Foundation; Northwoods Chapter Safari Club International; U.P. Whitetails Association, Inc., Menominee County Chapter; Wildlife Unlimited of Delta County; and Mississippi State University

Time Line and Budget: The full course of this project is anticipated to be conducted in three snowfall zones in the UP with a total duration of approximately twelve years. Total project costs could exceed \$3,000,000.