NEW JERSEY BEAR AVERSIVE CONDITIONING REPORT

Prepared by Northeast Wildlife DNA Laboratory, East Stroudsburg University
(Huffman et al. 2010)

East Stroudsburg University's Northeast Wildlife DNA Laboratory in cooperation with the New Jersey Division of Fish and Wildlife conducted a research project in 2008 (May through September) in order to determine the efficacy of the aversive conditioning techniques used by the NJ Division of Fish and Wildlife. The study was conducted in West Milford, Vernon and Hardyston Townships of Sussex County. A total of 9 adult female bears (4 aversively conditioned and 5 unconditioned) were outfitted with satellite collars set to collect GPS readings every hour, 24 hours a day post-release. The aversive conditioning technique consisted of rubber buckshot, pyrotechnics and the use of Black mouth cur dogs. A soft mast (fruit and berry) survey was done to determine if soft mast availability differed between groups.

All bears regardless of treatment returned to an urban setting within 17 days of release. Unconditioned bears returned on average 140 feet (range 17–528 feet) from their initial capture site and the time to return to the capture site ranged from 2 – 28 days (average 18 days). Conditioned bears returned on average 207 feet (range 28–321 feet) from their initial capture site and the time to return was 45–85 days (average 57 days). The soft mast index indicated no difference in availability for either group. It can then be concluded that soft mast did not play a factor in nuisance bear behavior. The cumulative distances traveled for every bear within a group was calculated for the first fifteen days post-treatment. This showed conditioned bears had a larger cumulative distance traveled from each study animal's respective treatment site, 36,361 feet. Unconditioned bears had a smaller cumulative distance traveled from each study animal's respective treatment site, 28,909 feet. Despite the difference between treatment and control groups, all bears returned to urban settings. Two conditioned bears were photographed in dumpsters and another one was visually observed entering a dumpster by Division personnel. Two unconditioned bears exhibited nuisance behavior in the same community where they were initially captured. One was photographed in a dumpster and a second was euthanized for Category 1 behavior.

Based on these findings, the aversive conditioning protocol at best is beneficial in keeping bears temporarily away from the location where they were conditioned. However, it does not eliminate nuisance behavior in black bears.