

TRANSLATING BAIT PREFERENCE TO CAPTURE SUCCESS OF NORTHERN WHITE-TAILED DEER¹

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ABSTRACT

Wildlife management and research have depended upon trapping as an essential tool for decades. Although deer (*Odocoileus* spp.) capture by Clover traps remains a basic technique that has changed little over time, researchers use it as an integral part of field operations to support increasingly sophisticated and costly project objectives. Despite reports of deer preference for certain baits, no study has determined if bait preference can effectively increase capture success of free-ranging deer. By supplementing corn bait with salt, peanut butter, or molasses, we tested effects of these bait treatments on capture success of free-ranging white-tailed deer (*O. virginianus*), as well as levels of non-target animal disturbance in Clover traps, during February–March 2005. With 1,446 adjusted trap-nights and a 6.5% capture success rate, the probability of capture increased over time and varied among 4 study sites ($df = 3$, $P < 0.001$); however, we did not detect a significant effect of bait supplementation on capture success ($df = 3$, $P > 0.8$). Non-target animal activity in the trap varied by site ($df = 3$, $P < 0.001$), bait treatment ($df = 3$, $P = 0.04$), and Julian date ($df = 3$, $P < 0.001$). Our results are the first to suggest that bait preference may not translate into actual improved capture success of free-ranging deer. Future research should focus on testing additional baits or bait supplements to determine if an increase in trapping success and a minimization of trap disturbance by non-target species occurs.

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