
THE EFFECTS OF CHANGES IN ELK ARCHERY REGULATIONS ON ELK HUNTER EFFORT AND HARVEST, 2004-2010

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We evaluated the effects of changes in elk archery hunting seasons in eastern Montana on hunter numbers, days, and densities and elk harvest. We compared 2 time periods (2004-2007 and 2008-2010) and grouped hunting districts (HDs) into 1 of 4 season types. The 4 season types were limited permits in the Missouri Breaks (7 HDs), limited permits in non-breaks HDs (22 HDs), adjacent HDs were in close proximity to the limited permit HDs that we hypothesized might receive additional hunters displaced from the two more restrictive archery permit areas (22 HDs), and our pseudo-control season type included the rest of the HDs in the state (110 HDs). It appeared, from a statewide perspective, that changing the archery regulations to limited permits in 27 HDs didn't cause a statistically significant hunter shift to the 22 HDs identified as areas hunters would likely select if restrictions forced them to choose a new area. The only significant changes in hunter numbers and days were decreases in non-resident hunter numbers and days in the Missouri River Breaks HDs. Although the decrease in non-resident use may have had an economic impact in the local area; statewide, there was no change in non-resident use. Pseudo-control HDs showed decreases or no change in harvest response variables. Therefore, the significant harvest increases and/or lack of significant harvest declines in the limited permit areas might be interpreted as a relative success since most of these hunting districts are above population objectives for elk.