

****Polygyny, Parturition, and Calf Survival in a Translocated Eastern Elk (*Cervus Canadensis*) Population**

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Translocated populations may undergo exceptional changes in physiology, behavior, genetics, and demography following release into their new environment. Understanding implications of translocation on population processes remains increasingly relevant as number and type of conservation translocation activities increase worldwide. We reintroduced a population of elk (*Cervus canadensis*) to the Missouri Ozarks over the years 2011-2013 by translocating 106 individuals from Kentucky. Following translocation efforts we investigated changes in sire structure and consequences on male reproductive success and calf survival. All translocated individuals were fitted with GPS-radiocollars and tissue-sampled for DNA analysis. Subsequently, we captured and processed Missouri-born calves, took calf tissue samples for paternity analysis, and monitored calf survival. Results indicated increasing levels of polygyny in the face of advancing sire age structure across years following translocation. We found a positive effect of sire age on male reproductive success, but observed a significant year interaction signifying a decreasing effect of age across years following translocation as the population both aged and expanded. While we found increased calf mortality associated with later birth dates, we found limited evidence for increased calf mortality hazard associated with younger aged sires. Change in breeding structure is a little considered aspect of wildlife translocation that holds potential population genetic and demographic ramifications. Understanding how wildlife populations respond to translocation events across varied ecological metrics is crucial for increasing project success, improving subsequent management, and, ultimately, ensuring persistence of translocation populations.