Monitoring of hunted mountain goat populations in west-central Alberta: insights gained over more than four decades.

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ABSTRACT: Mountain goat (Oreamnos americanus) populations were monitored in west-central Alberta from 1971 to 2017. During the initial period (1971 – 1988) most populations were subjected to an either sex harvest regime of 5% of minimum helicopter counts. Following a series of years of declining numbers, the hunting season was closed in 1988 and remained so until 2000. During this period a kid mortality study was conducted, a provincial management plan was prepared and some, but not all, herds recovered. A hunting season was re-instituted in 2000 under a more conservative harvest regime of 1-2% of observed animals with efforts to focus harvest on males only. Over the last 10 years, both hunted and unhunted herds have again declined even under a very conservative hunting season. Concurrently, poor recruitment and decreased survival of adults has resulted in a strong decline of the unhunted Caw Ridge population. These declines have coincided with harsh winters combined with higher densities of mountain goats and increasing densities of mountain lions (Puma concolor). The implication of high levels of fecal cortisol in nannies monitored at Caw Ridge (long-term study area) are also discussed.

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