

**Abstract:**

Wildlife researchers often rely on demographic data collected from harvested animals to estimate population dynamics. But demographic data from harvested animals may be nonrepresentative if hunters/trappers have the ability and motivation to preferentially select for certain physical traits. Hunter preference is well demonstrated for ungulates, but less so for other wildlife species such as furbearers. We used data from bobcats harvested in Wisconsin (1983– 2014) to determine if harvest method and demographics (mass, male:female sex ratio and age) have changed over time, and if bobcat hunters/trappers exhibited selection. Each trait of harvested bobcats that we tested changed over time, and because these selected traits were interrelated, we inferred that harvest selection for larger size biased harvests in favour of older, male bobcats. The selection of older, male bobcats appears primarily driven by hound hunters (hereafter hunters) compared to trappers, with hunters more frequently creating taxidermy mounts from their harvested bobcats. We found an increase in the proportion of bobcats that were harvested by hunting compared to trapping over time, and this was associated with increased selectivity and substantial changes in the characteristics of harvested bobcats. Selection by hunters may bias population models that are based on the demography of harvested bobcats, and accounting for biases that may occur, including from different harvest methods, is critical when using harvest-dependent data.

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