

EVALUATION OF SURVEY INDICES FOR SCALED QUAIL IN WEST TEXAS

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ABSTRACT

Wildlife biologists and land managers require information on population demographics to effectively plan harvest schedules and evaluate habitat modifications. Population indices can potentially provide an efficient way to gather reliable information on wildlife populations as long as they reflect population behavior. We evaluated the relationships among standard survey indices used to monitor scaled quail (*Callipepla squamata*) across 6 sites in west Texas from 2007 to 2010. We collected data on spring cock call counts, simulated nest survival, roadside counts, and helicopter counts. The mean difference between methods was 2.4 quail/1.6 km on the Andrews County sites, and 4 quail/1.6 km at the Upton/Reagan County sites. Roadside counts and helicopter counts had similar numerical trends in relative abundance with a correlation coefficient of (0.67). Simulated nest fate (i.e., dummy nests) tended to track trends in population abundance. Our survey indices also followed annual fluctuations in scaled quail abundance as estimated from Texas Parks and Wildlife Department's annual roadside surveys.

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