

(40) GRIT-USE PATTERNS OF GAMEBIRDS IN INTERIOR ALASKA: ARE ROADS HAZARDOUS?

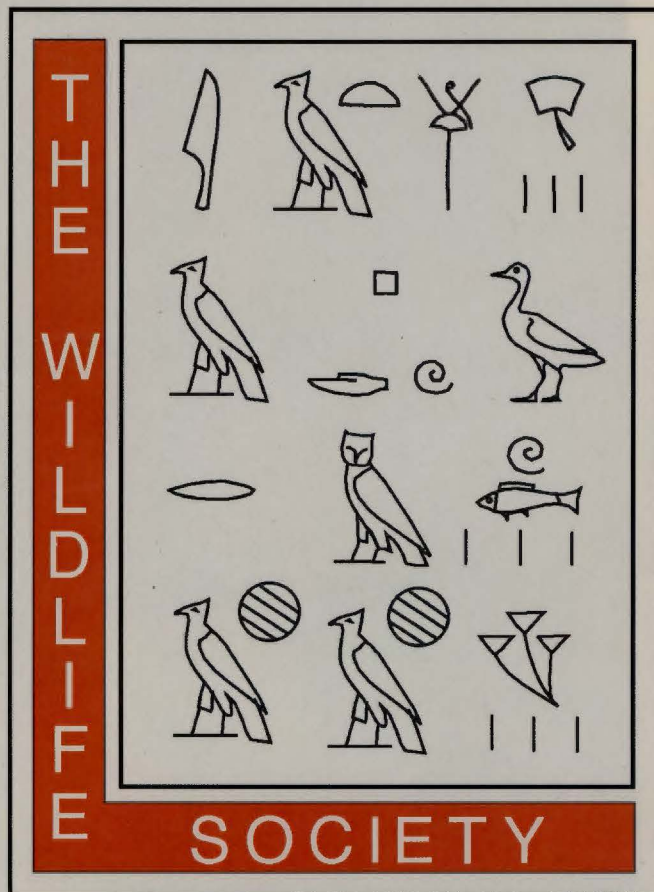
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Abstract: During fall and winter, roads appear to serve as a grit source for grouse and ptarmigan. Roadways not only put birds at risk for collision, but road gravel may also harbor pollutants. With the help of local hunters, we have begun to characterize the grit consumption patterns of interior gamebirds by asking three questions: (1) Do birds shot near roads contain more grit than those shot away from roads? (2) Do species differ with regard to grit characteristics? (3) Do birds exhibit a general preference for particular types of grit? We analyzed a total of 205 gizzards from five avian species. Birds shot on or within 50m of a road contained, on average, more than twice the amount of grit than those shot farther from roads ($n = 170$, $t = 3.69$, $P = 0.003$). We also detected strong species-specific differences with regard to total grit content and mean particle size. Spruce grouse, for example, consumed 2 to 297 times more grit than other species (mean = 446 particles per bird). Finally, we detected one general pattern with regard to grit color. Both spruce and ruffed grouse contained grit that was lighter in color than their immediate environment, (binomial test: $P = 0.0002$ and $P = 0.003$, respectively). Other investigations have shown that some passerines prefer to ingest light-colored particles. Our data suggest that interior gamebirds not only ingest more grit along roads, some species may preferentially consume light-colored particles. Such patterns provide useful, baseline information for future studies that aim to reduce risks that birds face along roads, including any chemical pollutants they may consume.



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