

Elk Pellets Aren't All Alike

J. Michael Geist, Paul J. Edgerton, and A.W. "Bud" Adams

Folks interested in finding wild animals may spend considerable time looking for droppings (pellets), tracks, beds, rubs, and other animal signs. Collectively, these signs may tell the observer about relative numbers of animals, how they move, habits in using certain areas, and the frequency of use of an area.

Today's range researcher uses new technologies to draw even more information from traditional animal signs. For example, elk pellets may be examined microscopically to help determine dietary make-up. Such findings aid the land manager in planning how future activities will be programmed to maintain or enhance wildlife habitats.

During our studies of wildlife use of forested ranges in the Blue Mountains of Oregon, we discovered some strikingly different elk pellets. These pellets were lighter in color and seemed heavier and larger than usual. In contrast to the common shiny surfaced pellet, these pellets were dull and dusty on the outside and when broken had a very gritty material among plant remnants. Some pellets contained no plant remnants and resembled little balls of compacted soil. The common pellet is dark colored and contains partially digested vegetation but little if any soil. We concluded these pellets were comprised of soil which passed through the digestive tract along with other dietary components. We called these droppings "soil pellets" in contrast to "normal pellets," even though both kinds are normal in the biological sense.

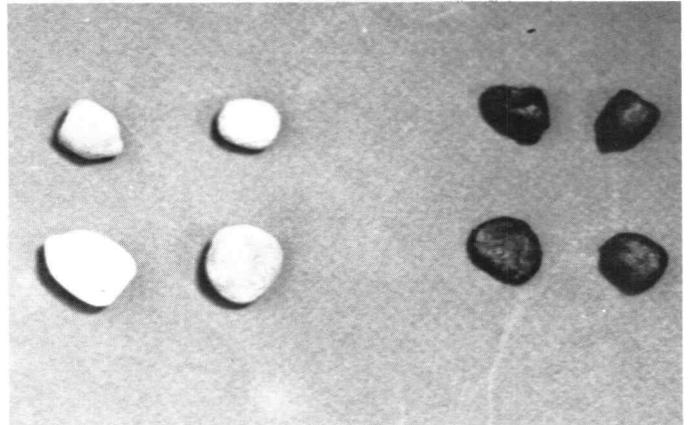
We and our co-workers began to watch for more soil pellets while doing other work. Elk are known to frequent salt licks, and we expected to find soil pellets nearby as substantial quantities of soil are usually missing in those areas. While there were some soil pellets near licks, they were not abundant. Most defecation probably occurs away from such places and makes soil pellets more difficult to find.

Elk apparently eat soil associated with burn slash piles in logged areas. There was evidence of animals pawing and apparently eating the soil which had changed color (sometimes to white, others to red) from fire effects. We believe the elk eat the soil to obtain minerals released from logging slash or other organic debris when burned. The

minerals are absorbed into the soil as salts when they are dissolved by rain or snow melt.

We don't know how elk determine the desirability of soil in burned slash piles or at salt licks. The process seems selective because not all burned piles are used this way.

We compared 14 different soil pellet collections with 20 other normal pellet collections. These collections came from



Elk pellets with a high soil content (left) have a different surface texture and color than those we usually see (right). The nearly white pellet (lower left) is comparatively rare in our experience. Its color is probably associated with naturally white soil deposits occurring along the North Fork of the John Day River where the pellet originated.



A burned slash pile where elk have apparently been eating soil.

Authors are respectively, research soil scientist, research wildlife biologist, U.S. Forest Service Range and Wildlife Habitat Laboratory; and research wildlife biologist, Oregon Department of Fish and Wildlife, La Grande.

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