

SIGN #6 HARVESTING ON THE HILL

Throughout this block only low volume (light) logging is done to maintain the winter range for deer. As you can see, very few trees have been cut along the ridge top. Many of the largest trees are left behind for snow interception and to provide litterfall. Usually small groups of Douglas-fir trees are cut. Other species of trees, such as lodgepole pine and spruce, may also be harvested.

SIGN #7 MULE DEER MENU

Mule Deer live on a winter diet of litterfall, shrubs and lichen. Most of their diet consists of Douglas-fir litterfall and when not buried by deep snow, Saskatoon and Wild Rose are



Saskatoon

also eaten. Natural grasslands are close by but are also buried in the snow. In the meantime, hanging tufts of green and black Lichen (sometimes referred to as Witches Hair or



Lichen

Old Man's Beard) provide another food source for the deer and deer find it quite tasty! In early spring, the deer move to range where green grass provides much needed nourishment.

SIGN #8 SOUTHERN EXPOSURE

Just as you benefit from standing in the sun on cold winter days, so do Mule Deer. This is one reason why deer seek south-facing slopes during winter.

SIGN #9 THE RESEARCH CONTINUES

Managing a young stand of trees for future harvesting and future Mule Deer winter range is occurring here. These trees were thinned in 1991. Clumps of trees, with tops that could eventually interlock, were left standing while other trees around and throughout the clump were cut. You may notice that not all of this area has been thinned. A "buffer" strip has been left to give wildlife both security cover and protection from the wind.

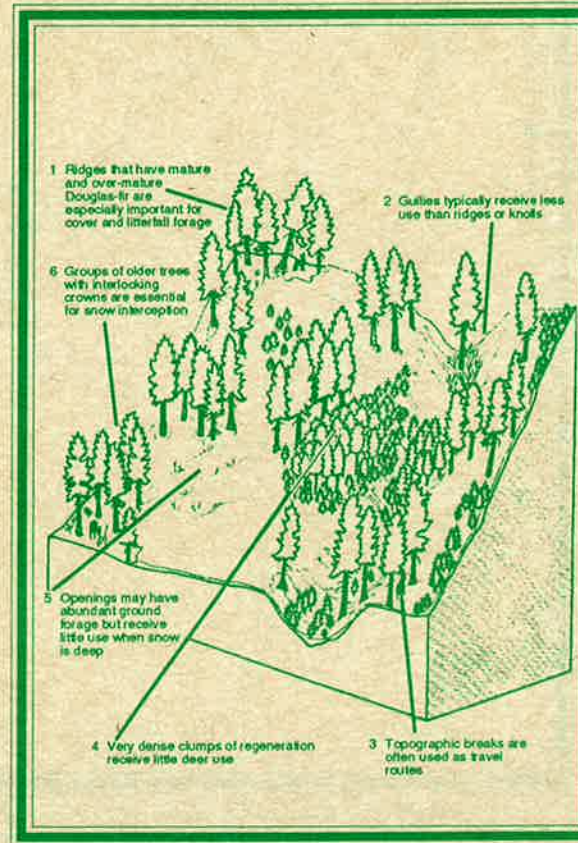
SIGN #10 YOUR RETURN TRIP

Today you have discovered how research information developed into important guidelines to assist forest managers. Research projects such as this one provide a better understanding of what wildlife require. We hope you have enjoyed your visit. The beginning of the trail is located 200 meters up this road, just past the cattle guard.

ACKNOWLEDGEMENTS

Special thanks to Harold Armleder and Michaela Waterhouse from the Ministry of Forests, Cariboo Regional Office, for their assistance in describing their research and providing artwork.

MULE DEER WINTER RANGE



For further information contact:

UBC/Alex Fraser Research Forest
72 South 7th Avenue
Williams Lake, B.C.
V2G 4N5
392-2207

Cariboo Forest Region
540 Borland Street,
Williams Lake, BC
V2G 1R8
398-4507



The Knife Creek MULE DEER TRAIL

*This project was made possible by
a Green Gold Grant funded by the*



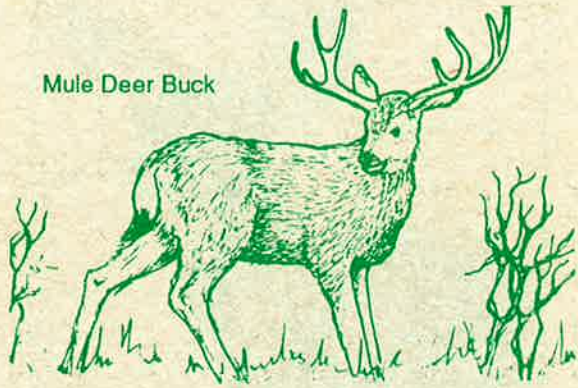
Partnership Agreement on Forest Resource Development: FRDA II



The Knife Creek Mule Deer Trail

Starting in the early 1980's, the Ministry of Forests began conducting research in this area. The project involved investigating why Mule Deer use this forest in the winter and how various timber harvesting and silviculture practices could be conducted without impacting negatively on the deer.

Mule Deer have large ears, forked antlers, a white rump patch and a black tip on their tails. They are plant eaters that migrate up to 120 kilometers to winter range.

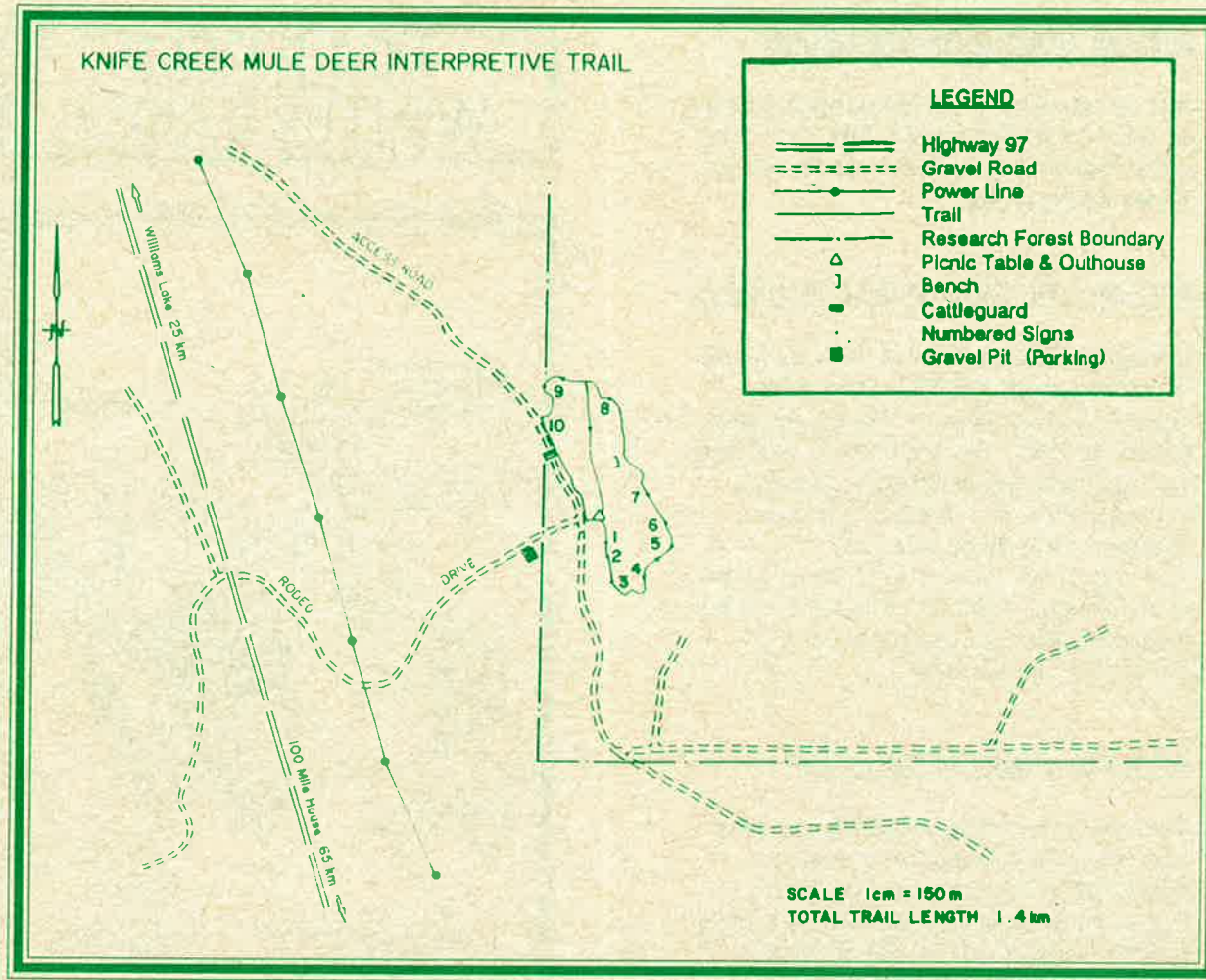


Mule Deer Buck

The following signs outline some of the research results.

SIGN #1 HOME ON THE RANGE

The Mule Deer research project started by studying why deer use this area. Researchers discovered that Mule Deer seek low elevation areas in the winter that offer stands of Douglas-fir trees of various ages on south-facing slopes close to natural grasslands. The areas where these features are found are called winter range.



The numbers in this brochure correspond to the numbers on the trail signs.

SIGN #2 HARVESTING IN CLUMPS

Harvesting in this area dates back to 1944, when trees were cut to make railroad ties. In 1984, a small group of trees (note the stumps) were harvested from this gully. Researchers found that Mule Deer do not use gullies or north-facing slopes as often as other areas. By harvesting in groups, the stand will continue to have a variety of

tree ages that can maintain Mule Deer habitat. Also, small openings are created where food shrubs such as the Wild Rose and Saskatoon may grow. Eventually, young Douglas-fir trees will replace the shrubs and form a future "clump" of trees.



Wild Rose

SIGN #3 TREE BLANKETS

In the winter, Douglas-fir trees of different heights and ages, as well as small hills, help Mule Deer maintain a constant body temperature by providing "thermal cover". The trees act as a blanket and block cold winds. Mule Deer also use dense clumps of young trees to hide from predators.

SIGN #4 WINTER RANGE HABITAT

Mule Deer spend much of their time on ridge-tops and warm south-facing slopes. Here deer can easily see predators and the sunny, south facing slopes enable deer to warm up using energy from the sun. The major tree species on this ridge is Douglas-fir. This tree has thick bark, cones with "pitch fork" bracts and flat needles. Douglas-fir can grow on ridges since they can tolerate dry sites and prefer well-drained soils.

Douglas-fir



SIGN #5 TREE UMBRELLAS

Look up at this group of mature Douglas-fir trees and notice how the tops interlock. These natural umbrellas catch snow, making it easier for deer to search for food and move around below. On windy days, the branches hit against each other and drop a litter of needles and twigs (litterfall), which is an important food for Mule Deer.