

Habitat management for

MULE DEER

mule deer



In the State of Oregon

Mule deer (Odocoileus hemionus hemionus) are common throughout eastern Oregon and along the eastern slopes of the Cascade Range. The mule deer is the most important big game species in Oregon that provides sport hunting, recreational observation, tasty food, and economic benefits from thousands of hunters who visit the hunting areas.

The mule deer has large mule-like ears that give it its common name. The tip of its tail is black and the surrounding area is white, making it easy to spot. Adult bucks weigh 90 to 300 pounds dressed weight, averaging about 135 to 150 pounds. Does weigh 70 to 175 pounds dressed weight, averaging 100 pounds.

The bucks grow a new set of antlers each year, shedding each set in early winter. The large "trophy" antlers may reach or exceed 30 inches in both length and spread, with four or more points on each antler. A yearling buck's antlers normally have two points on a side, but spikes are also common.

The life span of a wild mule deer is about seven years. Mating takes place in late fall, usually in November. Does give birth to one or two (rarely three) fawns in late spring (May and June) after a gestation period of about 210 days. A doe usually bears its first fawn at age two.

Mule deer often migrate considerable distances from summer to winter range. Good winter range is essential. Winter range for most Oregon deer is on private lands. As with any species of wildlife, the best huntable populations of mule deer occur where its habitat is best.

HABITAT NEEDS

Habitat and its management include preservation and development of important foods, cover, and water. In addition, deer populations must be controlled by adequate hunting to avoid over-populations that seriously damage good habitat, and thus reduce its capacity to support

deer, and that result in poor physical condition of the deer, followed by winter losses and low rates of reproduction.

Food. Mule deer eat a wide variety of forage foods--the leaves, needles, succulent stems, fruits and seeds--from trees, shrubs, forbs, domestic crops, and green grasses. The best deer range has a good balance of all these foods. It is useful to classify the "important" deer foods into two groups, according to the quality of each food to attract deer and sustain good physical condition. Proper classification reflects seasonal palatability and nutritional contents of the plant parts eaten. Choice foods attract deer and maintain vigorous health that keeps them in good flesh and reproductive condition. Fair foods are somehow deficient, but usually are adequate to maintain life through crucial periods. Good shrub and tree browse is particularly important in winter when snow covers the ground.

Grasses and grain crops are choice foods for mule deer. The green forage of bluegrass, cheatgrass, needlegrass and other grasses, oats, rye, and wheat are attractive wherever available in late fall, winter, and early spring. The grain or green feed from barley, corn, oats, rye, sorghum, and wheat are choice foods whenever they are available.

Tender leaves and stems of forbs include alfalfa, balsamroot, bluebells, burnet, clovers, dandelion, hawkweed, prickly lettuce, garden peas, and sweetclover.

The fresh grown leaves of shrubs include bearberry, bitterbrush, shrubby eriogonums, ceanothus (redstem and snowbrush), sand cherry, chokecherry, elder, mountain ash, tall green rabbitbrush, stiff sagebrush, service-berry, and willow.

Tree foods are the leaves and fruits of apple and crab apple.

Some species of mushrooms and lichens are choice foods.

Fair foods include green growth of grasses--fescue (Idaho and tall), needle-and-thread, and wheatgrasses.

Fresh growth of forbs include aster, biscuitroot, sticky geranium, and wild sunflower.

Tender leaves, semi-woody stems, and fruits or berries of shrubs and trees include aspen, cherry, cottonwood, currant, dogwood, Douglas fir, huckleberry, juniper, maple, mockorange, ninebark, Oregon grape, plum, raspberry, rose, big sagebrush, snowberry, smooth sumac, and thimble-berry.

Cover. Mule deer are expert at utilizing sparse cover provided by vegetation and terrain. Deer use south facing slopes during winter. Mule deer are swift afoot and depend upon a keen sense of smell and hearing to escape enemies.

Water. Water is required and is usually available throughout good deer range; however, there are some arid areas where the addition of water could help to extend and increase mule deer population.

MANAGEMENT SUGGESTIONS

Good deer management requires two essential considerations: (1) the quality of the vegetative habitat, and (2) adequate annual harvest of the bucks, does, and fawns, to avoid over-populations that are likely to impair its habitat. The Oregon State Game Commission has the responsibility for the protection and management of all resident game species including mule deer and all hunting seasons are subject to its rules and regulations.

The landowner who wants deer and deer hunting should rely on managing the various plants that are important foods for deer at all seasons of the year.

Cultivated lands, where available near cover, offer prime opportunities to grow the most choice foods such as alfalfa, that attracts, supports, and produces good-to-excellent deer populations.

Range management for deer should consider dual and competitive use of important forages (both choice and fair) by livestock. Deer do not like mature (dry) grasses, so cattle grazing to utilize most of the grass is beneficial. Sheep and goats, however, are much more competitive with deer.

Fencing. To permit deer easy access to fenced fields, pastures, and range, three strands of barbed wire should be spaced 16, 30 and 42 inches above ground. Deer may go under, through, or over these fences. To exclude deer, a woven wire fence about 79 inches high is stapled to posts spaced 12 feet apart. Treated lodgepole posts 11 feet long, set 2-1/2 feet in the ground, are good. Cost of materials and labor may exceed \$1,500 per mile. To protect an individual tree, a 12 foot length of 2" X 2" mesh wire, 72 inches high, is placed as a cylinder around the tree.

EVALUATION OF DEER USE BY PELLET GROUP COUNTS

Counting mule deer pellet groups on randomized sample plots can quickly and easily provide information on (1) number of deer using a given area which may include a field, a seeding, a range site, an entire ranch, or other areas of concern; and (2) vegetational preferences of deer including seasons of use.

Method. Plots are circular and have a radius of 3.72 feet giving a coverage of 1/1000 of an acre for each plot. Thus:

1 plot = 1/1000 acre
10 plots = 1/100 acre
100 plots = 1/10 acre

The number of pellet groups within each plot or any outside group touching the plot are counted. The number of groups counted are expanded to groups per acre.

Next, deer days use per acre can be computed by dividing the number of pellet groups by 13, a factor which is considered to equal single day use by a deer.

Example. If ten sample plots (1/100 acre) show ten pellet groups on one acre, then 10×10 groups equals 1,000 total groups for the acre. 1,000 groups divided by 13 (factor) = 77 days use by deer.

Randomly sample in a systematic manner. For example, sample on plots located along a paced line at one chain intervals.

Plot size is easily measured and marked with the use of a cord or chain 3.72 feet long where one peg holds the center and another is used to mark the ground around the edge of the circle.

Many old pellet groups and few new ones may indicate a winter range.

The same pellet group count procedure works equally well for elk and black-tailed deer.