BLACK-TAILED DEER

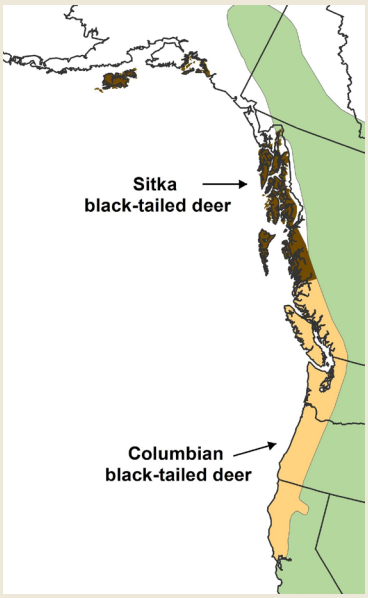
Fact Sheet #46

OVERVIEW

There are two subspecies of black-tailed deer: Columbian black-tailed deer *(Odocoileus hemionus columbianus)* and Sitka black-tailed deer *(O. h. sitkensis)*. These subspecies occur in the coastal rainforests of the Pacific Northwest, British Columbia, Canada, and Alaska and have different habitat needs than mule deer. Although they are subspecies of mule deer, black-tailed deer are physically and genetically different from mule deer and from each other. Due to the differences among these deer, wildlife managers use different tools and techniques to manage black-tailed deer across their range.

DIFFERENCES AND DISTRIBUTION

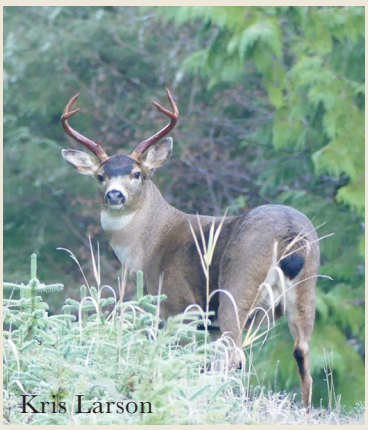
Black-tailed deer physically differ from mule deer because they have smaller antlers, black-backed tails, shorter metatarsal glands, smaller body size, and often have a double white throat patch. Columbian black-tailed deer range from northern California northward to Oregon, Washington, and southern British Columbia on the west side of the Cascade and Coast mountains. They live mostly in coastal rainforests dominated by spruce, hemlock, western red cedar, and various fir species. Sitka black-tailed deer live in coastal rainforests along the northern coast of British Columbia northward into southeast Alaska with historical translocations as far north as Kodiak Island. Precipitation rates vary across the range, but some areas receive more than 200 inches of rain annually. Sitka black-tailed deer have a more consistent double throat patch, a shorter black-tipped tail, and are darker than the Columbian subspecies and mule deer.



POPULATION MONITORING AND MANAGEMENT

It is difficult to estimate black-tailed deer population size due to the dense vegetation, rugged topography, and remoteness of their range. Their densities vary from island to island and even among neighboring watersheds in the northern coastal areas of British Columbia and Alaska. For this reason, data from annual harvest and hunter effort provide important information on deer population trends and it is crucial for hunters to provide accurate hunt reports.

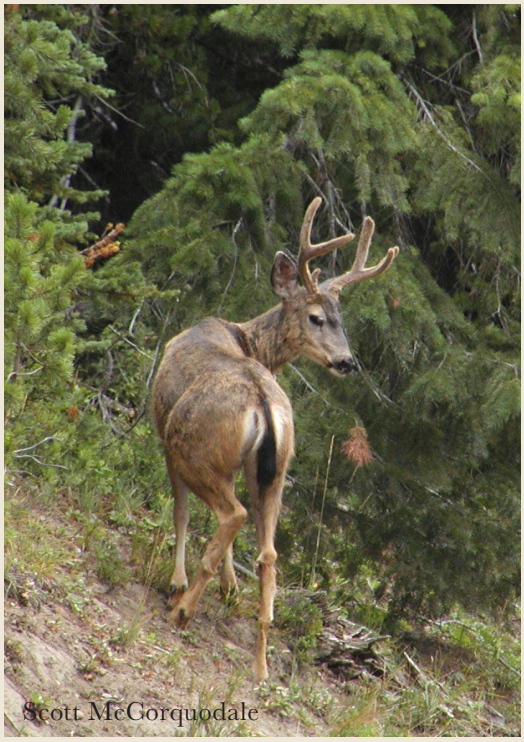
Sitka black-tailed deer densities vary over time and are influenced by weather, forestry practices, habitat and forage availability, predator populations, and hunter harvest. In harsh winters with deep snow, some populations can experience high mortality and deer populations plummet. Following a high winter die-off, deer populations can rebound relatively quickly if conditions are favorable. Other than humans, black bears and wolves are the primary predators for Sitka black-tailed deer. Predation rates are influenced by an array of factors including predator:prey ratios, availability of other prey species, and habitat conditions.


Kris Larson

For Columbian black-tailed deer in northern California, Washington, and Oregon, winter mortality is not usually a major issue. Changes in silvicultural practices in the last four decades have had pronounced effects on deer densities. For an updated look at trends in black-tailed deer by state, province, and territory, see "Range-Wide Status of Black-tailed and Mule Deer" at www.muledeerworkinggroup.com.

HABITAT

In coastal British Columbia and Alaska where there is little to no fire-history, wind and landslide events are the disturbance regime that contributes to habitat variability. These disturbances are often small-scale and create a mosaic of different aged forest stands across the landscape by creating openings in the forest canopy. Openings in the forest canopy allow sunlight to reach the forest floor which causes a flush of forbs that are key to deer diets. Undisturbed old-growth patches provide important cover for deer from weather and they intercept snow which allows deer to access forage during deep snow conditions.


Scott McGorquodale

Timber harvest creates openings in the forest canopy but are frequently much larger than openings caused by natural disturbances. Clearcutting timber results in an initial flush of forbs for deer, however, this food source is not available to deer during periods with deep snow. Slash (branches and small trees) left behind after timber harvest and thinning can impede deer movement, forage availability, and hunting access. By the time slash decomposes into the ground, the canopy starts to close within 8-12 years causing the "stem exclusion phase" where sunlight is blocked from reaching the ground and forage is diminished or non-existent. Without timber harvest or habitat treatment, these conditions can persist for decades and can have negative effects on deer abundance and hunting success.

The southern part of Columbian black-tailed deer range has a history of fire disturbance where fire played a healthy role in opening the forest canopy and letting sunlight in to grow forbs and shrubs that deer eat. Decades of fire suppression and timber harvest have resulted in denser, younger forests, and widespread stem exclusion. Timber harvest, if designed to mimic natural disturbance cycles, can provide a beneficial form of canopy disturbance that contributes to habitat productivity.

CONCLUSIONS

The two subspecies of black-tailed deer (Sitka and Columbian) are important subsistence resources throughout many parts of their range. Hunting is an important part of conservation, and hunters are urged to follow regulations to accurately report their harvest and hunting effort. Although similar, the subspecies differ morphologically and occupy different geographic locations. Depending on geographic location, populations of black-tailed deer may be influenced by timber harvest practices, fire suppression, weather, and other factors. Considering the impact of forest management practices on black-tailed deer populations, foresters should consider recommendations from local wildlife experts on how to minimize negative impacts to wildlife in their area. These practices may include retaining old-growth forests to ensure a mosaic across the landscape, mimicking natural disturbance cycles, creating wildlife corridors, or treating previously logged areas.

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