

How Grey is the Gray Wolf?

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*In the standard textbook on Canadian mammals by Ottawa zoologist A.W.F. Banfield, the common species name given to *Canis lupus* was just Wolf, while the American name has always been Gray Wolf. Unfortunately, the American label, including its spelling, has now also been adopted in Canada. This is a pity, because this colour-based name is clearly a misnomer.*

Forty years ago, provincial zoologist J.D. Soper described five different subspecies of wolves for Alberta, while Banfield recognized seventeen for Canada. The number of subspecies inhabiting all of North America, based on physical characteristics and geographic range, ran to several dozen. More recently, however, by scientific consensus, the continental total has been drastically whittled down to only three or four subspecies. They include the white Arctic Wolf, the Red Wolf of the American southeast, and the Gray Wolf.

The present range of the Gray Wolf extends right across the continent from Montana to Minnesota and from Alaska to Labrador. But there is a marked difference between east and west. With very rare exceptions, all eastern North American wolves are a shade of tan-grey, resembling the Coyote. By contrast, the pelage colour of western Gray Wolves shows extreme individual variation. For instance, in two 1950s wolf control campaigns by government agents in Alberta and British Columbia, in which a total of nearly one thousand wolves were poisoned, the black percentages were 31 and 33%. The proportion of blacks in Alaska is in the same order of magnitude.

Formerly, black wolves were also common in Mississippi and Florida. More than half a century ago, the renowned American wolfers Stanley Young and Edward Goldman named two smallish southern subspecies *Canis niger* and *Canis niger rufus*. This indicates that the current name of Red Wolf is actually a misnomer as well.

In our Rocky Mountain National Parks, melanism has always been common in wild canids. In the 1940s, 55% of 80 wolves seen by park wardens were described as black. In the summers of 1966-1985, I saw 132 wolves at their dens in Jasper's upper Snake Indian Valley, and the black percentage was 53%. In Yellowstone National Park, where wolves from western Canada were reintroduced a decade ago, the black contingent of the current population of 100-160 runs to about half.

As a volunteer wildlife researcher in Jasper National Park, I have monitored wolves and their prey species on a wintering range in the lower Athabasca valley for 26 years. My methods were simple and required no more than patience and a bit of luck to be in the right place at the right time. Each day, around sundown and just after dawn, I spent an hour or so on a ridge overlooking the study area, which included open river flats and partly wooded

montane meadows.

Over the years, I saw wolves on about 150 days of some 600 spent in the field. Quite often, the sighting involved just a single animal, at other times a pack. The size of the local wolf pack changed from year to year and varied from five to thirteen, except for 1983 when it declined to two. Mean or average pack size over these 26 winters was 7.9 members. Of all wolves seen -- some five hundred in total -- 74 percent were black. This is the highest proportion ever reported anywhere. In 1992, all 13 members of the local pack were black. And between 1992 and 1996 I failed to see a single grey wolf. During that same time period, park wardens reported few greys from other districts in Jasper.

Colour Variations

Western wolves can be split into two major shades, either grey or black. The fur of a typical grey wolf is cream-coloured on throat, belly and legs (see photo), with darker accents along the spine, and a black tip to the tail. The pelage of a grey wolf changes little with age. By contrast, the black variant can go through a complete metamorphosis.

Black puppies often feature a white spot on the chest. Black adults may have white feet or a whitish face, and after one or more years, the dark pelage of nearly all blacks fades to bluish-grey, brown-grey, or silver. Some even turn white, which was closely observed in Yellowstone National Park. There, two radio-tagged black wolves, transplanted from Alberta, became practically white after just two years. Extreme bleaching of formerly black wolves has also been reported in captive situations.

In view of the fact that most or all wolves become grey or greyish with advancing age, Jasper's high percentage of blacks may be indicative of a young population. The mortality rate of these park wolves is not exactly known but believed to be high. Subject to trapping and hunting on the park boundaries, this fleet-footed predator occasionally runs afoul of vehicles and trains inside the park. Senior warden Wes Bradford, who keeps track of these data, reports that the average yearly number of fatalities over the past decade was around four, with a peak of ten in 1996. The traffic toll of hooved mammals as well as wolves is expected to grow as the highway and railroad corridors that transect the park get busier.

Lobos of the Old West.

Based on historical records, the wolves of the American frontier, prior to their final extermination earlier this century, included black animals as well as whites. Interestingly, in a paper published in the *Canadian Field-Naturalist*, biologists Philip Gipson and Warren Ballard reported that one-third of 59 notorious cattle-killing lobos of the Old West were white. Several of these crafty survivors that became adept at avoiding traps and poison were known to have reached an old age of fifteen or more. Apparently, having your hair turn silver or white with increasing age is a characteristic that we share with the wild ancestor of "man's best friend."

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