

# A CASE HISTORY OF WOLF–HUMAN ENCOUNTERS IN ALASKA AND CANADA

*by*

Mark E McNay



*Photo courtesy of BC Parks*

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Mary V Hicks  
Publications Specialist  
ADF&G, Wildlife Conservation  
PO Box 25526  
Juneau, AK 99802-5526  
(907) 465-4176

[Mo\\_Hicks@fishgame.state.ak.us](mailto:Mo_Hicks@fishgame.state.ak.us)

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*by*

Mark E McNay

STATE OF ALASKA

*Tony Knowles, Governor*

DEPARTMENT OF FISH AND GAME

*Frank Rue, Commissioner*

DIVISION OF WILDLIFE CONSERVATION

*Wayne L Regelin, Director*

*Steven R Peterson, Senior Staff Biologist*

Alaska Department of Fish and Game

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## EXECUTIVE SUMMARY

Currently there are an estimated 59,000–70,000 wolves (*Canis lupus*) in Alaska and Canada. Past reviews of wolf–human interactions concluded that wild, healthy wolves in North America present little threat to human safety. However, since 1970 some cases have appeared in the published literature documenting wolf aggression toward people. A wolf attack on a 6-year-old boy near Icy Bay, Alaska in April 2000 generated debate in Alaska that challenged previous assumptions regarding the potential danger of wolves to people. At that time there was no recently compiled record of wolf–human encounters for either Alaska or Canada.

To provide a current perspective on wolf–human interactions, I compiled a case history that describes 80 wolf–human encounters in which wolves showed little fear of people. I obtained cases from biologists and law enforcement officers in Alaska and Canada, from public health records, from the published literature, and from interviews with private citizens who witnessed the events. I classified the 80 cases into 7 behavioral categories: 1) Agonism, 2) Predation, 3) Prey Testing or Agonistic Charges, 4) Self-defense, 5) Rabies, 6) Investigative Searches, and 7) Investigative Approaches.

Patterns of wolf behavior described in this case history provide a reference for management of wolves where frequent wolf–human encounters occur. Thirty-nine cases contain elements of aggression among healthy wolves, 12 cases involve known or suspected rabid wolves, and 29 cases document fearless behavior among nonaggressive wolves. In 6 cases in which healthy wolves acted aggressively, the people were accompanied by dogs. Aggressive, nonrabid wolves bit people in 16 cases; none of those bites was life-threatening, but in 6 cases the bites were severe.



*Photo by Jason Ransom*





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## INTRODUCTION

Previous reviews of wolf–human interactions found that wolf aggression toward humans was rare in North America (Young 1944; Rutter and Pimlott 1968; Mech 1970, 1990). Those reviews discounted most descriptions of wolf aggression as either exaggerations or as misinterpretations of benign encounters. When wolf attacks were substantiated, in both Europe and North America, most were attributed to either rabid wolves or to wolf–dog hybrids (Rutter and Pimlott 1968; Mech 1970). Consequently, it is now widely accepted among biologists that healthy, wild wolves present little threat to people.

Since 1970, wolves have increased and expanded their range in both Canada and the United States, and formerly exploited wolf populations are now protected. Currently there are an estimated 52,000–60,000 wolves in Canada (Hayes and Gunson 1995), 7000–10,000 in Alaska (Alaska Department of Fish and Game, unpublished data), and approximately 3200 in the United States outside of Alaska (US Department of Interior 2000). Despite that large and widely distributed wolf population, no human deaths have been attributed to wild, healthy wolves since at least 1900, and biting incidents or bluff charges are rare enough to warrant publication in scientific journals (Munthe and Hutchison 1978; Jenness 1985; Scott et al. 1985). However, in April 2000 a wolf attacked and repeatedly bit a 6-year-old boy near Icy Bay, Alaska. That incident stimulated a debate in the Alaskan legislature that questioned the generally accepted view of wolf–human interactions. Wolf control was proposed for some rural areas to enhance public safety, and biologists were unable to add scientific perspective to the debate because there



was no recent compilation of records that documented wolf aggression toward people in North America.

Following the incident at Icy Bay, I began to solicit and compile cases of wolf-human encounters in which wolf behavioral responses to human presence deviated from what was considered "normal" avoidance. I did not limit my investigation to aggressive encounters but included cases where wolves displayed nonaggressive, yet fearless, behavior. The case history presented here is the culmination of that investigation. The purpose of this technical bulletin is to provide a current perspective for wolf-human interactions in a variety of contexts in Alaska and Canada.

## METHODS

I contacted biologists and law enforcement officers, via telephone and e-mail, in Alaska and in all of the provinces and territories of Canada where wolves currently exist. I began by contacting the carnivore or furbearer biologist in each jurisdiction, and then based on their recommendations, I contacted additional officials or private citizens until I spoke with a witness or an official who was involved in or had investigated a specific incident. I obtained investigative reports where possible, conducted follow-up interviews with other witnesses or officials, and reviewed newspaper or newsletter articles supplied by those individuals. I interviewed trappers, hunters, photographers, hikers, and pilots that were involved in wolf-human encounters when official investigative reports were not available. I found several cases in the records of the Alaska State Virology Laboratory because wolves that exhibit fearless behavior are often killed and submitted for rabies testing. In the virology records, a brief narrative described the circumstances for each tested wolf. I also included cases from published accounts that appeared in books and scientific journals.

I systematically queried state, provincial, and territorial wildlife agencies in Alaska and Canada, but the case history is not exhaustive, nor does it represent a random sample of wolf-human encounters. I censored 33 cases because I could not establish dates, locations, identities of people, or other specific circumstances.

Young (1944) wrote the most detailed review to date of wolf-human encounters in North America. His review detailed 30 accounts of wolf aggression toward people before 1900 and included 6 cases in which wolves possibly killed humans. However, Young (1944:128) prefaced his review with the statement: "Whether these stories are products of the fertile imaginations, or are truth, is difficult to determine." Therefore, I did not include the encounters described by Young (1944), nor did I describe any cases that involved captive wolves or cases of predation by wild wolves on pets or livestock, unless the wolf simultaneously exhibited fearless behavior toward people.

I organized wolf-human encounters among 5 behavioral categories that describe aggressive behaviors and 2 categories that are nonaggressive. Aggressive encounters include cases in which wolves bit or attempted to bite people; people defended themselves at close range from rapidly approaching wolves; or wolves acted aggressively or displayed threats in self-defense. Nonaggressive encounters include cases in which wolves approached or passed near people and then either ignored the people or were easily and quickly frightened away. I classified each case



based on the behavior that presented the greatest threat to people. For example, cases in which wolves exhibited scavenging behavior before biting or threatening a person were categorized based on the bite or threat rather than on the scavenging behavior.

### **CATEGORIES OF AGGRESSIVE BEHAVIORS**

Agonism is a behavioral pattern exhibiting features of both aggression and avoidance, arising from a conflict between aggression and fear (Rudin 1997). Agonistic behavior includes most aggressive behaviors and nonaggressive ritualized behaviors related to wolf social interactions including territorial defense, rank-order interactions, and sexually motivated aggression. Agonistic aggression is often preceded by some warning or threat display (Fox 1971:134).

Predation involves a series of connected behaviors that lead to the consummatory act of eating. Therefore, predation can be identified by its elements, namely a) orientation toward the prey, b) following (i.e., stalking or rushing approach), c) catching, and in the case of small prey, d) carrying and sometimes shaking. Unlike agonism, predation is generally not preceded by a threat display or vocalization (Fox 1971:134). Most or all of the elements of predation were observed in cases I classified as predation.

Prey testing or agonistic charges are described in a number of cases in which aggressive behavior could have been either predatory or agonistic. All such cases involved aggressive behavior that required people to defend themselves at close range.

Self-defense includes aggression by wolves in defense of their young, in defense of a mate, or in self-defense. Defensive behavior is agonistic, but I separated self-defense from other agonistic behaviors because self-defense was provoked by human intrusion or aggression.

Rabies includes cases in which wolves were either diagnosed with rabies or an official involved in the investigation made a presumption of rabies based on circumstantial evidence. For cases based on circumstantial evidence alone, I noted possible alternative explanations for aggressive behavior where they existed.

### **CATEGORIES OF NONAGGRESSIVE BEHAVIORS**

Investigative search behaviors were exhibited by wolves that either curiously walked toward people or searched and scavenged in human-use areas such as campgrounds or remote campsites. Investigative search also included a distinct subcategory of escort behaviors in which wolves followed behind or paced alongside people at close range.

Investigative approaches were similar to prey testing/agonistic charges because in both behaviors wolves ran toward people. However, in investigative approaches, the rapid approach ended when wolves stopped at a safe distance from people and then retreated without making threat displays. Those cases were considered nonaggressive and possibly resulted when wolves were unable to identify people, or misidentified people as potential prey, from long distances.