

# READING CLOSELY GRADES 6 UNIT TEXTS

AUTHOR	DATE	PUBLISHER	L	NOTES
<b>Text #1: Representations of Wolves (Images)</b>				
Various	NA	Various: Public Domain	NA	Wolves represented through art, illustration and photography.
<b>Text #2: A Brief History of Wolves in the United States (Informational Text)</b>				
Cornelia N. Hutt	NA	Defenders of Wildlife	1230L	Overview of wolves in North America including how they have been seen and affected by various groups of humans.
<b>Text #3: Two Wolves (Video)</b>				
Dave Owens	2008	Dave Owens	NA	A Cherokee story of wisdom; the words of a Cherokee grandfather talking to his grandson.
<b>Text #4: Living with Wolves and Lobos of the South West (Websites)</b>				
NA	NA	Living With Wolves and Mexican Wolves.org	NA	Informational websites about wolves--one on the history of the Mexican Gray Wolf and one about wolves living on a preserve.
<b>Text #5: All About Wolves: Pack Behavior (Informational Text)</b>				
John Vucetich and Rolf Peterson	2012	The Wolves and Moose of Isle Royale Project	1200L	Discussion of the social behavior of wolves.
<b>Text #6: White Fang. [Pt. II Ch. I] (Fictional Narrative)</b>				
Jack London	1906	Macmillan	1020L	Excerpt focusing on the running of a wolf pack and the role of the dominant female wolf within the pack.
<b>Text #7: All About Wolves : Hunting Behavior (Informational Text)</b>				
John Vucetich and Rolf Peterson	2012	The Wolves and Moose of Isle Royale Project	990L	An overview of the Isle of Royal Project as well as a factual description of a wolf hunt.
<b>Text #8: White Fang. [Pt. II Ch. III] (Fictional Narrative)</b>				
Jack London	1906	Macmillan	1020L	Excerpt describing the first sensory experiences of a wolf pup and the role of the wolf parents.
<b>Text #9: Alpha Status, Dominance, and Division of Labor in Wolf Packs (Scientific Study)</b>				
David. L. Mech	1999	Northern Prairie Wildlife Research Center	1300L	Report discussing observations of wolves in the wild and the issues of studying wolves in their natural habitat.
<b>Extended Reading: (Various)</b>				
Various	NA	Various	NA	Links to extension texts exploring various aspects of wolves and human perception of them.



# TEXT #1



©A-GC.com. Public Domain

<http://www.a-gc.com/nature-animals-wolves-2-22233/->



© Emil Doepler. Public Domain

## ***Odin at Ragnarok*** **Emil Doepler, 1905**

<http://www.shmoop.com/odin/photo-odin-at-ragnarok.html>



© Doug Smith. Public Domain

## ***Mollies Pack Wolves Baiting a Bison*** **Doug Smith**

[http://bohojo.files.wordpress.com/2012/10/wolf\\_pack\\_surrounding\\_bison\\_usps.jpg](http://bohojo.files.wordpress.com/2012/10/wolf_pack_surrounding_bison_usps.jpg)



© Public Domain

## ***Roping Gray Wolf***

[http://www.thepublicdomain.net/2008\\_01\\_01\\_archive.html](http://www.thepublicdomain.net/2008_01_01_archive.html)





© Gustave Dore. Public Domain

## ***Red Riding Hood meets old Father Wolf*** **Gustave Dore**

<http://www.wikipaintings.org/en/gustave-dore/red-riding-hood-meets-old-father-wolf>



# TEXT #2

## *A Brief History of Wolves in the United States*

**Cornelia N. Hutt**  
**Defenders of Wildlife**

<http://kidsplanet.org/www/index.html>

Wolves once roamed across most of North America. Over hundreds of thousands of years they developed side by side with their **prey** and filled an important role in the web of life. **Opportunistic** hunters, wolves preyed on deer, elk and beaver, killing and eating the young, the sick, the weak and the old and leaving the fittest to survive and reproduce. **P1**

**5** Wolf kills provided a source of food for numerous other **species** such as bears, foxes, eagles and ravens. Wolves even contributed to forest health by keeping deer and elk populations in check, thus preventing overgrazing and soil erosion.

Not surprisingly, the cultures which inhabited North America before the time of European exploration **revered** the wolf and its role in nature. Many **indigenous** groups **10** relied on hunting as their major source of food and goods and were keenly **attuned** to their environment. The elements of the natural world, including the wolf, were important to their everyday lives and spirituality. **P2**

Native Americans **attributed** an **array** of powers and miracles to wolves, from the **P3**




creation of tribes to healing powers. For example, the Kwakiutl of the Pacific Northwest  
**15** believed that before they became men or women, they had been wolves. The Arikara  
believed that Wolf-Man made the Great Plains for them and the other animals. The Sioux  
and Cheyenne of the Great Plains and many other tribes credited the wolf with teaching  
them how to survive by hunting and by valuing family bonds.

In other Native American cultures, the wolf played an important role in the **spiritual** **P4**  
**20** and **ceremonial** life of the tribe. Wolves were regarded as mysterious beings with powers  
they could **bestow** upon people. The Crow, for instance, believed that a wolf skin could  
save lives. Other Native American **lore** is full of stories of wolves and of wolf parts healing  
the sick and the **mortally** injured.

When Europeans arrived in the New World, roughly 250,000 wolves flourished in **P5**  
**25** what are now the lower 48 states. Many settlers, however, brought with them a **legacy** of  
**persecution** dating back centuries. Mythology, legends and fables such as those  
popularized by Aesop and the Brothers Grimm **intensified** people's fear of wolves. In  
America, the killing of wolves came to symbolize the triumph of civilization over what was  
considered to be a wilderness wasteland. In 1630, just ten years after the *Mayflower* landed  
**30** at Plymouth Rock, the Massachusetts Bay Colony began offering a reward (bounty) for  
every wolf killed.




Colonists relied heavily on the deer population for food for themselves and as an export item. When the deer population dropped as a result of over-hunting, wolves became a convenient **scapegoat**. They were also held accountable for livestock losses, **35** even when diseases and other causes were to blame. Few people seemed to question the belief that a safe home required the elimination of all the wolves. **P6**

In time, wolf killing became a profession. In the 19th century, the demand for **pelts** **P7** sent hundreds of hunters out to kill every wolf that they could. At the same time, ranchers moved into the western plains to take advantage of cheap and abundant grazing land. As **40 domestic livestock** replaced the wolf's natural prey base of bison and deer, the threat of wolf **predation** on cattle led to a massive campaign to exterminate the wolf in the American west. Professional "wolfers" working for the livestock industry laid out strychnine-poisoned meat lines up to 150 miles long. When populations dropped to such low levels that wolves were difficult to find, states offered bounties with the goal of **extirpating** **45** wolves altogether. Wolves were shot, poisoned, trapped, clubbed, set on fire and inoculated with mange, a painful and often fatal skin disease caused by mites. In a 25-year period at the turn of the century, more than 80,000 wolves were killed in Montana alone.

Well into the 20th century, the belief that wolves posed a threat to human safety **P8** persisted despite documentation to the contrary. The persecution continued. By the **50** 1970s, only 500 to 1,000 wolves remained in the lower 48 states, occupying less than three percent of their former range.




Fortunately, America’s understanding of the wolf has grown in the last 20 years. As P9  
scientists have discovered more about the **intricacies** of nature, our knowledge of the  
interdependence of all living things has increased significantly. People are now more  
**55** aware of the importance of **predators** in maintaining healthy ecosystems. In addition, as  
our population has become increasingly **urbanized** and wilderness areas have been  
swallowed up by development, we have begun to treasure what we are losing. The wolf  
has become a symbol of our loss. The overwhelming number of wolf **advocacy** groups  
that now thrive in the United States attest to the degree to which these predators have  
**60** captured our interest and our imagination.

Thanks to efforts by the U.S. Fish and Wildlife Service, zoos and wildlife advocacy P10  
groups, wolves have slowly begun to recover in areas where they have long been absent.  
In recent years, wolves have been successfully reintroduced to former **habitats** in central  
Idaho, Wyoming, Montana, North Carolina and Arizona. More than 5,000 wolves now  
**65** inhabit the wild south of Canada. While many welcome this recovery, a vocal minority  
remains strongly opposed to the presence of any wolves at all in the wild.






## **TEXT #3**

### ***TWO WOLVES***

**David Owens**

[http://www.youtube.com/watch?feature=player\\_embedded&v=E8CHjX8HauA#!](http://www.youtube.com/watch?feature=player_embedded&v=E8CHjX8HauA#!)

## **TEXT #4**

### ***Living With Wolves***

**Jim and Jamie Dutcher**

**Living With Wolves**

<http://www.livingwithwolves.org/index2.html>

### ***Lobos of the South West***

**Mexican Wolves.org**

<http://www.mexicanwolves.org/index.php/about-wolves>



# TEXT #5

## All About Wolves

### John Vucetich and Rolf Peterson Wolves and Moose of Isle Royale Project, 2012

<http://isleroyalewolf.org/overview/overview/wolves.html>

#### PACK BEHAVIOR

##### About The Wolves and Moose of Isle Royale Project: Overview

Isle Royale is a remote wilderness island, **isolated** by the frigid waters of Lake Superior, and home to populations of wolves and moose. As predator and prey, their lives and deaths are linked in a drama that is timeless and historic. Their lives are historic **P1**

**5** because we have been documenting their lives for more than five decades. This research project is the longest continuous study of any predator-prey system in the world.

##### Observations of Pack Behavior

Wolves develop from pups at an incredible rate. Pups are born, in late April, after just a two-month pregnancy. They are born deaf, blind, and weigh no more than a can of soda **P2**

**10** pop. At this time, pups can do basically just one thing – **suckle** their mother’s milk.

Within a month, pups can hear and see, weigh ten pounds, and explore and play **P3**

around the den site. The parents and sometimes one- or two- year old **siblings** bring food back to the den site. The food is **regurgitated** for the pups to eat. By about two months of age (late June), pups are fully weaned and eat only meat. By three months of age (late




15 July), pups travel as much as a few miles to **rendezvous** sites, where pups wait for adults to return from hunts.

Pups surviving to six or seven months of age (late September) have adult teeth, are eighty percent their full size, and travel with the pack for many miles as they hunt and patrol their territory. When food is plentiful, most pups survive to their first birthday. As often, food is scarce and no pups survive. P4

A wolf may **disperse** from its **natal** pack when it is as young as 12 months old. In some cases a wolf might disperse and breed when it is 22 months old – the second February of its life. In any event, from 12 months of age onward, wolves look for a chance to disperse and mate with a wolf from another pack. In the meantime, they bide their time in the safety of their natal pack. P5

From birth until his or her last dying day, a wolf is **inextricably** linked to other wolves in a **complex** web of social relationships. The ultimate basis for these relationships is sharing food with some, depriving it from others, reproducing with another, and suppressing reproduction among others. P6

30 Most wolves live in packs, a community sharing daily life with three to eleven other wolves. Core pack members are an **alpha** pair and their pups. Other members commonly include **offspring** from previous years, and occasionally other less closely related wolves. P7




Pups depend on food from their parents. Relationships among older, physically mature offspring are fundamentally tense. These wolves want to **mate**, but alphas **repress** any attempts to mate. So, mating typically requires leaving the pack. However, **dispersal** is dangerous. While biding time for a good opportunity to disperse, these **subordinate** wolves want the safety and food that come from pack living. They are sometimes tolerated by the alpha wolves, to varying degrees. The degree of **tolerance** depends on the degree of obedience and submission to the will of alpha wolves. For a subordinate wolf, the choice, typically, is to **acquiesce** or leave the pack.

P8

Alphas lead travels and hunts. They feed first, and they **exclude** from feeding whom ever they choose. Maintaining alpha **status** requires controlling the behavior of pack mates. Occasionally a subordinate wolf is strong enough to take over the alpha position.

P9

Wolf families have and know about their neighbors. Alphas exclude non-pack members from their territory, and try to kill trespassers. Mature, subordinate pack members are sometimes less hostile to outside wolves – they are **potential** mates.

P10

Being an alpha wolf requires aggression, control, and leadership. Perhaps not surprisingly, alpha wolves typically possess higher levels of stress hormones than do subordinate wolves, who may not eat as much, but have, apparently, far less stress.

P11




50 Pack members are usually, but not always friendly and cooperative. Wolves from other packs are usually, but not always enemies. Managing all of these relationships, in a way that minimizes the risk of injury and death to one's self, requires **sophisticated** communication. Accurately interpreting and judging these communications requires intelligence. Communication and intelligence are needed to know who my friends and  
55 enemies are, where they are, and what may be their **intentions**. These may be the reasons that most social animals, including humans, are intelligent and communicative.

P12

Like humans, wolves communicate with voices. Pack mates often separate temporarily. When they want to rejoin they often howl. They say: "Hey, where are you guys? I'm over here." Wolf packs also howl to tell other packs: "Hey, we are over here; stay  
60 away from us, or else."

P13

There is so much more to wolf communication. Scientists recognize at least ten different categories of sound (e.g., howls, growls, barks, etc.). Each is believed to communicate a different, context-dependent message. Wolves also have an elaborate body language. As **subtle** as body language can be, even scientists recognize  
65 communication to be taking place by the positions of about fifteen different body parts (e.g., ears, tail, teeth, etc.). Each body part can hold one of several positions (e.g., tail up, out, down, etc.). There could easily be hundreds to thousands of different messages communicated by different combinations of these body positions and vocal noises. Scientists **apprehend** (or misapprehend) just a fraction of what wolves are able to  
70 communicate to each other.

P14




Wolves also communicate with scent. The most distinctive use of scent entails territorial scent marking. **P15**

**Elusiveness** makes wolves mysterious. This is true and fine. However, true love cannot survive mystery due to ignorance. Mature love requires knowledge. In some **75** basic ways the life of a wolf is very ordinary, even **mundane**, and its comprehension is fully within our grasp if we just focus. **P16**

The life of a wolf is largely occupied with walking. Wolves are tremendous walkers. **P17** Day after day, wolves commonly walk for eight hours a day, averaging five miles per hour. They commonly travel thirty miles a day, and may walk 4,000 miles a year.

**80** Wolves living in packs walk for two basic reasons - to capture food and to defend their territories. Isle Royale wolf territories average about 75 square miles. This is small compared to some wolf populations, where territories can be as large as 500 square miles. To patrol and defend even a small territory, involves a never-ending amount of walking. Week after week, wolves cover the same trails. It must seem very ordinary. **P18**

**85** The average North American human walks two to three miles per day. A fit human walks at least five miles/day. If you want to know more about the life of a wolf, spend more time just walking, and while walking, know that you are walking. What do wolves think about much while walking? **P19**






Wolves defend territories. About once a week, wolves patrol most of their territorial boundary. About every two to three hundred yards along the territorial boundary an alpha wolf will scent mark, that is, urinate or defecate in a conspicuous location. The odor from this mark is detectable, even to a human nose, a week or two after being deposited. The mark communicates to potential trespassing wolves that this area is defended. Territorial defense is a matter of life and death. Intruding wolves, if detected, are chased off or killed, if possible.

**P20**

Wolves are like humans for having such complex family relationships. Wolves are also like some humans in that they wage complete warfare toward their neighbors. An alpha wolf typically kills one to three wolves in his or her lifetime.

**P21**




# TEXT #6

## *White Fang* Jack London Macmillan, 1906

<http://www.gutenberg.org/files/910/910-h/910-h.htm>

### Excerpt: Pt. II, C.h. I THE BATTLE OF THE FANGS

It was the she-wolf who had first caught the sound of men's voices and the whining of the sled-dogs; and it was the she-wolf who was first to spring away from the cornered man in his circle of dying flame. The pack had been **loath** to **forego** the kill it had hunted down, and it lingered for several minutes, making sure of the sounds, and then it, too, **5** sprang away on the trail made by the she-wolf. P1

Running at the forefront of the pack was a large grey wolf—one of its several leaders. It was he who directed the pack's course on the heels of the she-wolf. It was he who snarled warningly at the younger members of the pack or slashed at them with his fangs when they **ambitiously** tried to pass him. And it was he who increased the pace **10** when he sighted the she-wolf, now trotting slowly across the snow. P2

She dropped in alongside by him, as though it were her **appointed** position, and took the pace of the pack. He did not snarl at her, nor show his teeth, when any leap of hers chanced to put her in advance of him. On the contrary, he seemed kindly **disposed** P3




toward her—too kindly to suit her, for he was prone to run near to her, and when he ran  
15 too near it was she who snarled and showed her teeth. Nor was she above slashing his  
shoulder sharply on occasion. At such times he betrayed no anger. He merely sprang to  
the side and ran stiffly ahead for several awkward leaps, in carriage and conduct  
resembling an **abashed** country **swain**.

This was his one trouble in the running of the pack; but she had other troubles. On P4  
20 her other side ran a **gaunt** old wolf, grizzled and marked with the scars of many  
battles. He ran always on her right side. The fact that he had but one eye, and that the left  
eye, might account for this. He, also, was addicted to crowding her, to **veering** toward her  
till his scarred muzzle touched her body, or shoulder, or neck. As with the running mate  
on the left, she **repelled** these attentions with her teeth; but when both bestowed their  
25 attentions at the same time she was roughly **jostled**, being compelled, with quick snaps to  
either side, to drive both lovers away and at the same time to maintain her forward leap  
with the pack and see the way of her feet before her. At such times her running mates  
flashed their teeth and growled threateningly across at each other. They might have  
fought, but even **wooing** and its rivalry waited upon the more pressing hunger-need of  
30 the pack.

After each **repulse**, when the old wolf sheered abruptly away from the sharp- P5  
toothed object of his desire, he shouldered against a young three-year-old that ran  
on his blind right side. This young wolf had attained his full size; and, considering the




weak and **famished** condition of the pack, he possessed more than the average **vigour**  
**35** and spirit. Nevertheless, he ran with his head even with the shoulder of his one-eyed  
elder. When he ventured to run abreast of the older wolf (which was seldom), a snarl and  
a snap sent him back even with the shoulder again. Sometimes, however, he dropped  
cautiously and slowly behind and edged in between the old leader and the she-wolf. This  
was doubly resented, even triply resented. When she snarled her displeasure, the old  
**40** leader would whirl on the three-year-old. Sometimes she whirled with him. And  
sometimes the young leader on the left whirled, too.

At such times, confronted by three sets of savage teeth, the young wolf stopped **P6**  
**precipitately**, throwing himself back on his **haunches**, with fore-legs stiff, mouth  
menacing, and mane bristling. This confusion in the front of the moving pack always  
**45** caused confusion in the rear. The wolves behind collided with the young wolf and  
expressed their displeasure by administering sharp nips on his hind-legs and **flanks**. He  
was laying up trouble for himself, for lack of food and short tempers went together; but  
with the boundless faith of youth he persisted in repeating the maneuver every little  
while, though it never succeeded in gaining anything for him but **discomfiture**.

**50** Had there been food, mating and fighting would have gone on apace, and the pack- **P7**  
formation would have been broken up. But the situation of the pack was desperate. It  
was lean with long-standing hunger. It ran below its ordinary speed. At the rear limped  
the weak members, the very young and the very old. At the front were the strongest. Yet  
all were more like skeletons than full-bodied wolves. Nevertheless, with the exception of  
**55** the ones that limped, the movements of the animals were effortless and tireless. Their




stringy muscles seemed founts of **inexhaustible** energy. Behind every steel-like contraction of a muscle, lay another steel-like contraction, and another, and another, apparently without end.

They ran many miles that day. They ran through the night. And the next day found **P8**  
**60** them still running. They were running over the surface of a world frozen and dead. No life stirred. They alone moved through the vast **inertness**. They alone were alive, and they sought for other things that were alive in order that they might **devour** them and continue to live.

They crossed low divides and ranged a dozen small streams in a lower-lying country **P9**  
**65** before their quest was rewarded. Then they came upon moose. It was a big bull they first found. Here was meat and life, and it was guarded by no mysterious fires nor flying missiles of flame. Splay hoofs and **palmated** antlers they knew, and they flung their customary patience and caution to the wind. It was a brief fight and fierce. The big bull was beset on every side. He ripped them open or split their skulls with shrewdly driven  
**70** blows of his great hoofs. He crushed them and broke them on his large horns. He stamped them into the snow under him in the wallowing struggle. But he was **foredoomed**, and he went down with the she-wolf tearing savagely at his throat, and with other teeth fixed everywhere upon him, devouring him alive, before ever his last struggles ceased or his last damage had been wrought.




75 There was food in plenty. The bull weighed over eight hundred pounds—fully **P10**  
twenty pounds of meat per mouth for the forty-odd wolves of the pack. But if they could  
fast **prodigiously**, they could feed prodigiously, and soon a few scattered bones were all  
that remained of the splendid live brute that had faced the pack a few hours before.

There was now much resting and sleeping. With full stomachs, bickering and **P11**  
80 quarrelling began among the younger males, and this continued through the few days  
that followed before the breaking-up of the pack. The **famine** was over. The wolves were  
now in the country of game, and though they still hunted in pack, they hunted more  
cautiously, cutting out heavy cows or crippled old bulls from the small moose-herds they  
ran across.

85 There came a day, in this land of plenty, when the wolf-pack split in half and went in **P12**  
different directions. The she-wolf, the young leader on her left, and the one-eyed  
elder on her right, led their half of the pack down to the Mackenzie River and across into  
the lake country to the east. Each day this **remnant** of the pack **dwindled**. Two by two,  
male and female, the wolves were deserting. Occasionally a solitary male was driven out  
90 by the sharp teeth of his rivals. In the end there remained only four: the she-wolf, the  
young leader, the one-eyed one, and the ambitious three-year-old.

The she-wolf had by now developed a ferocious temper. Her three suitors all bore **P13**  
the marks of her teeth. Yet they never replied in kind, never defended themselves against  
her. They turned their shoulders to her most savage slashes, and with wagging tails and  
95 **mincing** steps strove to **placate** her wrath. But if they were all mildness toward her, they  
were all fierceness toward one another. The three-year-old grew too ambitious in his






fierceness. He caught the one-eyed elder on his blind side and ripped his ear into ribbons. Though the grizzled old fellow could see only on one side, against the youth and vigor of the other he brought into play the wisdom of long years of experience. His lost  
**105** eye and his scarred muzzle bore evidence to the nature of his experience. He had survived too many battles to be in doubt for a moment about what to do.

The battle began fairly, but it did not end fairly. There was no telling what the  
**110** outcome would have been, for the third wolf joined the elder, and together, old leader and young leader, they attacked the ambitious three-year-old and proceeded to destroy him. He was **beset** on either side by the merciless fangs of his **erstwhile** comrades. Forgotten were the days they had hunted together, the game they had pulled down, the famine they had suffered. That business was a thing of the past. The business of love was at hand—ever a sterner and crueler business than that of food-getting. **P14**

And in the meanwhile, the she-wolf, the cause of it all, sat down contentedly on her  
**115** haunches and watched. She was even pleased. This was her day—and it came not often—when manes bristled, and fang smote fang or ripped and tore the yielding flesh, all for the possession of her. **P15**

And in the business of love the three-year-old, who had made this his first adventure  
**120** upon it, yielded up his life. On either side of his body stood his two rivals. They were gazing at the she-wolf, who sat smiling in the snow. But the elder leader was wise, very wise, in love even as in battle. The younger leader turned his head to lick a wound on his **P16**




shoulder. The curve of his neck was turned toward his rival. With his one eye the elder saw the opportunity. He darted in low and closed with his fangs. It was a long, ripping slash, and deep as well. His teeth, in passing, burst the wall of the great vein of the

**125** throat. Then he leaped clear.

The young leader snarled terribly, but his snarl broke midmost into a tickling **P17**  
cough. Bleeding and coughing, already stricken, he sprang at the elder and fought while life faded from him, his legs going weak beneath him, the light of day dulling on his eyes, his blows and springs falling shorter and shorter.

**130** And all the while the she-wolf sat on her haunches and smiled. She was made glad **P18**  
in **vague** ways by the battle, for this was the mating of the Wild, the tragedy of the natural world that was tragedy only to those that died. To those that survived it was not tragedy, but realization and achievement.

When the young leader lay in the snow and moved no more, One Eye stalked over to **P19**  
**135** the she-wolf. His **carriage** was one of mingled triumph and caution. He was plainly expectant of a **rebuff**, and he was just as plainly surprised when her teeth did not flash out at him in anger. For the first time she met him with a kindly manner. She sniffed noses with him, and even **condescended** to leap about and frisk and play with him in quite puppyish fashion. And he, for all his grey years and **sage** experience, behaved quite as  
**140** puppyishly and even a little more foolishly.




Forgotten already were the **vanquished** rivals and the love-tale red-written on the snow. Forgotten, save once, when old One Eye stopped for a moment to lick his stiffening wounds. Then it was that his lips half **writhed** into a snarl, and the hair of his neck and shoulders involuntarily bristled, while he half crouched for a spring, his claws **145 spasmodically** clutching into the snow-surface for firmer footing. But it was all forgotten the next moment, as he sprang after the she-wolf, who was **coyly** leading him a chase through the woods.




# TEXT #7

## All About Wolves

### John Vucetich and Rolf Peterson Wolves and Moose of Isle Royale Project, 2012

<http://isleroyalewolf.org/overview/overview/wolves.html>

#### HUNTING BEHAVIOR

##### About The Wolves and Moose of Isle Royale Project: Overview

Isle Royale is a remote wilderness island, isolated by the frigid waters of Lake Superior, and home to populations of wolves and moose. As predator and prey, their lives and deaths are linked in a drama that is timeless and historic. Their lives are historic **P1**

**5** because we have been documenting their lives for more than five decades. This research project is the longest continuous study of any predator-prey system in the world.

##### Observations about Hunting Behavior

For most North American and European humans, eating a meal is a pretty simple affair: get some food from the cupboard, heat it up, and eat. What if every meal required **P2**

**10 exerting** yourself to the point of exhaustion, holding nothing back? What if every meal meant risking serious injury or death? Under these circumstances, you might be happy to eat only once a week or so – like Isle Royale wolves.

Isle Royale wolves capture and kill, with their teeth, moose that are ten times their size. Think about it for a moment – it is difficult to comprehend. A successful alpha wolf **P3**

**15** will have done this more than one hundred times in its life.




Wolves **minimize** the risk of severe injury and death by attacking the most **vulnerable** moose. Somehow wolves are incredible judges of what they can handle. Wolves encounter and chase down many moose. Chases typically continue for less than ½ a mile.

P4

**20** During chase and **confrontation** wolves test their prey. Wolves attack only about 1 out of every ten moose that they chase down. They kill 8 or 9 of every ten moose that they decide to attack. The decision to attack or not is a **vicious** tension between intense hunger and wanting not to be killed by your food.

P5

**25** Wolves typically attack moose at the rump and nose. The strategy is to inflict injury by making large gashes in the muscle, and to slow the moose by staying attached, thereby allowing other wolves to do the same. Eventually the moose is stopped and brought to the ground by the weight and strength of the wolves. The cause of death may be shock or loss of blood. Feeding often begins before the moose is dead.

P6

**30** A moose, with a wolf clamped to its rump is still **formidable**. They can easily swing around, lifting the wolf into the air, and hurl the wolf into a tree. Most experienced wolves have broken (and healed) their ribs on several occasions. Moose deliver powerful kicks with their hooves. Wolves occasionally die from attacking moose.

P7

After a chase, wolves may kill and begin feeding within 10 or 15 minutes. Or they may wound and wait several days for the moose to die.

P8


35 To some, wolves are evil for killing without cause and without eating much of what they kill. This is more a poor **rationalization** to **justify** killing wolves, than an observation rooted in fact. P9

Typically, wolves **consume** impressive portions of their prey, eating all but the **rumen** contents, larger bones, and some hair. They routinely eat what you and I would  
40 not dream of eating – the stomach muscles, tendons, marrow, bones, hair and hide. They typically consume 80 to 100% of all that is edible. By wolf standards, every American deer hunter is wasteful. A wolf’s gut is not so different from ours that we can’t appreciate what it means to resort to eating such parts. P10

These eating habits make sense: starvation is a very common cause of death for  
45 wolves; killing prey requires a tremendous amount of energy and is a life-threatening prospect for a wolf. P11

Two circumstances give false impressions. First, it may take several days for a pack  
50 to consume a **carcass**, or they may **cache** it and consume it later. The ultimate **utilization** of what may appear to be a poorly utilized carcass is routinely **verified** by merely revisiting the site of a moose carcass at a later date. P12

Occasionally prey are unusually abundant, **prone** to starvation, and easy to capture. P13  
Under such conditions wolves may eat relatively small portions – only the most nutritious parts – of a carcass.




In this regard, wolves are no different from any other creature in the animal kingdom. Along migration routes during spring, when song birds many be extremely abundant, hawks sometimes kill many of these birds and eat only the organs, leaving behind all the muscle. Spiders suck a smaller portion of juice from their prey when prey are more common. P14

These are examples of an **inviolable** law of nature – utilization decreases as availability increases. The average American throws away about 15% of all the **edible** food that they purchase. Ten percent of our landfills are food that was once edible. P15

Finally, waste is a matter of perspective. What wolves leave behind, **scavengers** **invariably** utilize. Foxes, eagles, and ravens are among the most important scavengers on Isle Royale. However, even smaller scavengers may benefit greatly. To a chickadee, for example, a moose carcass is the world’s largest suet ball. Scavengers make waste an impossibility. P16

After feeding for a few hours on a fresh kill, wolves sprawl out or curl up in the snow and sleep. To eat a large meal with one’s family, and then to rest. To stretch out and just rest. When we observe wolves during the winter, about 30% of the time they are just sleeping or resting near a recent kill. Wolves have plenty of reason to rest. P17

When wolves are active, they are really active. On a daily basis, wolves burn about 70% more calories compared to typical animals of similar size. P18


While chasing and attacking a moose, a wolf may burn calories at ten to twenty times the rate they do while resting. Its heart beats at five times its resting rate. For context, a world class athlete can burn calories at no more than about five times the calories they burn at rest. The intensity at which wolves work while hunting is far beyond the **capabilities** of a human. P19

While spending all this energy, wolves may eat only once every five to ten days. During the time between kills a wolf may lose as much as 8-10% of its body weight. However, a wolf can regain all of this lost weight in just two days of **ad libitum** eating and resting. P20

When food is plentiful, wolves spend a substantial amount of time simply resting, because they can. When food is scarce, wolves spend much time resting because they need to. P21

Wolves work tremendously hard, but they also take resting very seriously. P22

In some important ways, wolves and humans are alike. We are both social, intelligent, and communicative. In other ways, we differ. With thoughtful **reflection**, however, we can understand or imagine some of these aspects of a wolf's life – their endless walking and their feast or famine lifestyle. P23

However, in a fundamental way wolves **perceive** a world that is simply beyond our comprehension and imagination. Through their noses, wolves sense and know things that we could never know. P24


We can build tools to help us visualize things we can't see directly, like x-ray telescopes and electron microscopes. However, it is difficult to imagine a tool that would allow us to sense or experience the **olfactory** world experienced by the everyday life of a wolf. P25

Wolves have 280 million olfactory receptors in their nasal passages – more than the number of visual receptors in their **retinas**. Wolves can detect odors that are hundreds to millions of times fainter than what humans can detect. P26

100 A wolf often walks with its head down, nose close to the ground. Wolves rely on their noses for two of the most basic activities – hunting and communicating with other wolves. Smells, more than sights or sounds, determine where a wolf will travel next. P27

While hunting, moose are most often detected first by smell. Wolves commonly hunt into the wind, and by doing so can smell moose from 300 yards away. P28

105 A moose with jaw **necrosis** is vulnerable, and wolves can almost certainly smell that a moose has jaw necrosis before even seeing it. P29

The life of a wolf is difficult and typically, short. The chances of pup survival are highly variable. In some years, for some packs, most or all pups die. In other years, most or all survive. P30

110 Of the wolves that survive their first six to nine months, most are dead by three or four years of age. Every year, one in four or five adult wolves dies in a healthy wolf population. P31


Alpha wolves tend to be the longest lived. They commonly live for between six and nine years. Of the pups that survive their first year, only about one or two of every ten rise to the level of alpha. Most die without ever reproducing, and few wolves ever live long enough to grow old. **P33**

115 These rates of **mortality** are normal, even when humans are not involved in the death of wolves. **P34**

120 Wolves are **intensely social**. They are born into a family, and spend most of their time with other wolves. Wolves know each other and they know each other well. Imagine a world where it is common for one out of every four or five of the people you know to die. **P35**

The causes of wolf death are primarily lack of food and being killed by other wolves in conflict over food. This fact denies all **credibility** to **perceiving** wolves as wasteful **gluttons**, as they are often portrayed. **P36**

130 Most wolves die in the process of dispersing. Dispersal is a tremendous risk, but one worth taking. Ultimately, the only thing that matters is reproducing. Reproduction is very unlikely within the pack to which a wolf is born. It is better to risk death for some chance of finding a mate and a territory, than to live safely, but have virtually no chance of reproduction. **P37**




# TEXT #8

## *White Fang* Jack London Macmillan, 1906

<http://www.gutenberg.org/files/910/910-h/910-h.htm>

### Excerpt: Ch. III THE GREY CUB

He was different from his brothers and sisters. Their hair already **betrayed** the reddish hue inherited from their mother, the she-wolf; while he alone, in this particular, took after his father. He was the one little grey cub of the litter. He had bred true to the straight wolf-stock—in fact, he had bred true to old One Eye himself, physically, with but a single exception, and that was he had two eyes to his father’s one.

The grey cub’s eyes had not been open long, yet already he could see with steady clearness. And while his eyes were still closed, he had felt, tasted, and smelled. He knew his two brothers and his two sisters very well. He had begun to **romp** with them in a **feeble**, awkward way, and even to squabble, his little throat vibrating with a queer **rasping** noise (the **forerunner** of the growl), as he worked himself into a **passion**. And long before his eyes had opened he had learned by touch, taste, and smell to know his mother—a fount of warmth and liquid food and tenderness. She possessed a gentle, caressing tongue that soothed him when it passed over his soft little body, and that impelled him to snuggle close against her and to doze off to sleep.




15 Most of the first month of his life had been passed thus in sleeping; but now he P3  
could see quite well, and he stayed awake for longer periods of time, and he was coming to  
learn his world quite well. His world was gloomy; but he did not know that, for he knew no  
other world. It was dim-lighted; but his eyes had never had to adjust themselves to any  
other light. His world was very small. Its limits were the walls of the **lair**; but as he had no  
20 knowledge of the wide world outside, he was never **oppressed** by the narrow **confines** of  
his existence.

But he had early discovered that one wall of his world was different from the P4  
rest. This was the mouth of the cave and the source of light. He had discovered that it was  
different from the other walls long before he had any thoughts of his own, any **conscious**  
25 **volitions**. It had been an irresistible attraction before ever his eyes opened and looked  
upon it. The light from it had beat upon his sealed lids, and the eyes and the optic nerves  
had pulsated to little, sparklike flashes, warm-coloured and strangely pleasing. The life of  
his body, and of every fibre of his body, the life that was the very substance of his body and  
that was apart from his own personal life, had **yearned** toward this light and urged his body  
30 toward it in the same way that the **cunning** chemistry of a plant urges it toward the sun.

Always, in the beginning, before his conscious life dawned, he had crawled toward P5  
the mouth of the cave. And in this his brothers and sisters were one with him. Never, in  
that period, did any of them crawl toward the dark corners of the back-wall. The light drew  
them as if they were plants; the chemistry of the life that composed them demanded the  
35 light as a necessity of being; and their little puppet-bodies crawled blindly and chemically,






like the tendrils of a vine. Later on, when each developed individuality and became personally conscious of **impulsions** and desires, the attraction of the light increased. They were always crawling and sprawling toward it, and being driven back from it by their mother.

**40** It was in this way that the grey cub learned other **attributes** of his mother than the soft, soothing, tongue. In his insistent crawling toward the light, he discovered in her a nose that with a sharp nudge administered **rebuke**, and later, a paw, that crushed him down and rolled him over and over with swift, **calculating** stroke. Thus he learned hurt; and on top of it he learned to avoid hurt, first, by not **incurring** the risk of it; and second, **45** when he had incurred the risk, by dodging and by retreating. These were conscious actions, and were the results of his first generalisations upon the world. Before that he had **recoiled** automatically from hurt, as he had crawled automatically toward the light. After that he recoiled from hurt because he *knew* that it was hurt.

He was a fierce little cub. So were his brothers and sisters. It was to be expected. He **50** was a carnivorous animal. He came of a breed of meat-killers and meat-eaters. His father and mother lived wholly upon meat. The milk he had sucked with his first flickering life, was milk transformed directly from meat, and now, at a month old, when his eyes had been open for but a week, he was beginning himself to eat meat—meat half-digested by the she-wolf and **disgorged** for the five growing cubs that already made too great **55** demand upon her breast.




But he was, further, the fiercest of the **litter**. He could make a louder rasping growl **P8** than any of them. His tiny **rages** were much more terrible than theirs. It was he that first learned the trick of rolling a fellow-cub over with a **cunning** paw-stroke. And it was he that first gripped another cub by the ear and pulled and tugged and growled through **60** jaws tight-clenched. And certainly it was he that caused the mother the most trouble in keeping her litter from the mouth of the cave.

The fascination of the light for the grey cub increased from day to day. He was **P9** perpetually departing on yard-long adventures toward the cave's entrance, and as perpetually being driven back. Only he did not know it for an entrance. He did not know **65** anything about entrances—passages whereby one goes from one place to another place. He did not know any other place, much less of a way to get there. So to him the entrance of the cave was a wall—a wall of light. As the sun was to the outside dweller, this wall was to him the sun of his world. It attracted him as a candle attracts a moth. He was always striving to attain it. The life that was so swiftly expanding within him, urged him **70** continually toward the wall of light. The life that was within him knew that it was the one way out, the way he was **predestined to tread**. But he himself did not know anything about it. He did not know there was any outside at all.

There was one strange thing about this wall of light. His father (he had already **P10** come to recognise his father as the one other dweller in the world, a creature like his **75** mother, who slept near the light and was a bringer of meat)—his father had a way of walking right into the white far wall and disappearing. The grey cub could not understand this. Though never permitted by his mother to approach that wall, he had approached the




other walls, and encountered hard obstruction on the end of his tender nose. This hurt. And after several such adventures, he left the walls alone. Without thinking about it, **80** he accepted this disappearing into the wall as a **peculiarity** of his father, as milk and half-digested meat were peculiarities of his mother.

In fact, the grey cub was not given to thinking—at least, to the kind of thinking customary of men. His brain worked in dim ways. Yet his conclusions were as sharp and distinct as those achieved by men. He had a method of accepting things, without questioning **P11** **85** the why and wherefore. In reality, this was the act of classification. He was never disturbed over why a thing happened. How it happened was sufficient for him. Thus, when he had bumped his nose on the back-wall a few times, he accepted that he would not disappear into walls. In the same way he accepted that his father could disappear into walls. But he was not in the least disturbed by desire to find out the reason for the **90** difference between his father and himself. **Logic** and **physics** were no part of his mental make-up.

Like most creatures of the Wild, he early experienced famine. There came a time when not only did the meat-supply cease, but the milk no longer came from his mother's breast. At first, the cubs whimpered and cried, but for the most part they slept. It was not **P12** **95** long before they were reduced to a coma of hunger. There were no more spats and squabbles, no more tiny rages nor attempts at growling; while the adventures toward the far white wall **ceased** altogether. The cubs slept, while the life that was in them flickered and died down.




One Eye was desperate. He ranged far and wide, and slept but little in the lair that **P13**  
**100** had now become cheerless and miserable. The she-wolf, too, left her litter and went out in search of meat. In the first days after the birth of the cubs, One Eye had journeyed several times back to the Indian camp and robbed the rabbit snares; but, with the melting of the snow and the opening of the streams, the Indian camp had moved away, and that source of supply was closed to him.

**105** When the grey cub came back to life and again took interest in the far white wall, **P14**  
he found that the population of his world had been reduced. Only one sister remained to him. The rest were gone. As he grew stronger, he found himself **compelled** to play alone, for the sister no longer lifted her head nor moved about. His little body rounded out with the meat he now ate; but the food had come too late for her. She slept continuously, a  
**110** tiny skeleton flung round with skin in which the flame flickered lower and lower and at last went out.

Then there came a time when the grey cub no longer saw his father appearing and **P15**  
disappearing in the wall nor lying down asleep in the entrance. This had happened at the end of a second and less severe famine. The she-wolf knew why One Eye never came  
**115** back, but there was no way by which she could tell what she had seen to the grey cub. Hunting herself for meat, up the left fork of the stream where lived the lynx, she had followed a day-old trail of One Eye. And she had found him, or what remained of him, at the end of the trail. There were many signs of the battle that had been fought, and of the lynx's withdrawal to her lair after having won the victory. Before she went away, the she-  
**120** wolf had found this lair, but the signs told her that the lynx was inside, and she had not dared to venture in.




After that, the she-wolf in her hunting avoided the left fork. For she knew that in **P16**  
the lynx's lair was a litter of kittens, and she knew the lynx for a fierce, bad-tempered  
creature and a terrible fighter. It was all very well for half a dozen wolves to drive a lynx,  
**125** spitting and bristling, up a tree; but it was quite a different matter for a lone wolf to  
encounter a lynx—especially when the lynx was known to have a litter of hungry kittens at  
her back.

But the Wild is the Wild, and motherhood is motherhood, at all times fiercely **P17**  
protective whether in the Wild or out of it; and the time was to come when the she-wolf,  
**130** for her grey cub's sake, would venture the left fork, and the lair in the rocks, and the lynx's  
**wrath.**




# TEXT #9

## *Alpha Status, Dominance, and Division of Labor in Wolf Packs*

David L. Mech

In Canadian Journal of Zoology

Published by Northern Prairie Wildlife Research Center Online, 1999

<http://www.npwrc.usgs.gov/resource/mammals/alstat/index.htm>

### Introduction

Wolf (*Canis lupus*) packs have long been used as examples in descriptions of behavioral relationships among members of social groups. The subject of social **dominance** and alpha **status** has gained considerable **prominence**, and the prevailing **5** view of a wolf pack is that of a group of individuals ever **vying** for dominance but held in check by the "alpha" pair, the alpha male and the alpha female. **P1**

Most research on the social **dynamics** of wolf packs, however, has been conducted on **P2** wolves in captivity. These captive packs were usually composed of an assortment of wolves from various sources placed together and allowed to breed at will. This approach **10** apparently reflected the view that in the wild, "pack formation starts with the beginning of winter", **implying** some sort of annual assembling of independent wolves.




In captive packs, the **unacquainted** wolves formed **dominance hierarchies** featuring alpha, beta, omega animals, etc. With such **assemblages**, these dominance labels were probably appropriate, for most species thrown together in captivity would usually so arrange themselves. **P3**

In nature, however, the wolf pack is not such an assemblage. Rather, it is usually a family including a breeding pair and their offspring of the previous 1-3 years, or sometimes two or three such families (Murie 1944; Haber 1977; Mech et al. 1998). Occasionally an unrelated wolf is adopted into a pack, or a relative of one of the breeders is included, or a dead parent is replaced by an outside wolf and an offspring of opposite sex from the newcomer may then replace its parent and breed with the stepparent. **P4**

Nevertheless, these variations are exceptions, and the pack, even in these situations, consists of a pair of breeders and their young **offspring**. The pack functions as a unit year-round (Mech 1970, 1988, 1995b). **P5**

As offspring begin to mature, they **disperse** from the pack as young as 9 months of age. Most disperse when 1-2 years old, and few remain beyond 3 years (Mech et al. 1998). Thus, young members constitute a temporary portion of most packs, and the only long-term members are the breeding pair. In contrast, captive packs often include members forced to remain together for many years. **P6**


- 30** Attempting to apply information about the behavior of assemblages of unrelated captive wolves to the **familial** structure of natural packs has resulted in considerable confusion. Such an approach is **analogous** to trying to draw inferences about human family dynamics by studying humans in refugee camps. The concept of the alpha wolf as a "top dog" ruling a group of similar-aged **compatriots** is particularly misleading. **P7**
- 35** Because wolves have been persecuted for so long, they have been difficult to study in the wild (Mech 1974) and therefore information about the social **interactions** among free-living wolf pack members has accumulated slowly. Little is known about the interactions between breeding males and breeding females under natural conditions, and about the role of each in the pack and how dominance relates to these relationships. **P8**
- 40** A few people have observed the social behavior of wild wolves around dens, but Murie (1944) gave an **anecdotal** account, Clark (1971), in an unpublished **thesis**, presented only a **quantified** summary of the pack's hierarchical relationships, and Haber (1977) described his interpretation of a pack's social hierarchy but gave no supporting evidence. Thus, no one has yet quantified the hierarchical relationships in a wild wolf pack. **P9**
- 45** Here I attempt to clarify the natural wolf-pack social order and to advance our knowledge of wolf-pack social dynamics by discussing the **alpha concept** and **social dominance** and by presenting information on the dominance relationships among members in free-living packs. **P10**




## Methods

50 This study was conducted during the summers of 1986-1998 on Ellesmere Island, P11  
Northwest Territories, Canada (80° N, 86° W). There, wolves prey on **arctic hares**  
(*Lepus arcticus*), muskoxen (*Ovibos moschatus*), and Peary caribou (*Rangifer tarandus*  
*pearyi*), and live far enough from **exploitation and persecution** by humans that they are  
relatively unafraid of people. During 1986, I **habituated** a pack of wolves there to my  
55 presence and reinforced the habituation each summer. The pack frequented the same  
area each summer and usually used the same den or nearby dens. The habituation  
allowed me and an assistant to remain with the wolves daily, to recognize them  
individually, and to watch them regularly from as close as 1 m.

We noted each time a wolf **submitted posturally** to another wolf. Usually this P12  
60 **deference** was characterized by "licking up" to the mouth of the dominant animal in the  
"active submission" posture, similar to that described by Darwin (1877) for domestic dogs.  
Often this behavior took place as an animal returned to the den area after **foraging**, and  
sometimes the returning individual disgorged food to the **soliciting** wolf. Other behavior  
noted included "pinning," or **passive submission**, in which the dominant wolf threatened  
65 another, which then groveled, and "standing over," in which one wolf stands over  
another, which often lies nonchalantly but in a few cases sniffs the genitals of the other. I  
did not consider "standing over" a dominance behavior.


The following is a summary of generalizations documented in the previous references, together with new quantified findings.

P13

## 70 Results and Discussion

### Alpha status

"Alpha" **connotes** top ranking in some kind of **hierarchy**, so an alpha wolf is by definition the top-ranking wolf. Because among wolves in captivity the hierarchies are gender-based, there are an alpha male and an alpha female.

P14

- 75 The way in which alpha status has been viewed historically can be seen in studies in which an attempt is made to distinguish future alphas in litters of captive wolf pups. For example, it was **hypothesized** that "the emotional **reactivity** of the dominant cub, the *potential* alpha animal (emphasis mine) of the pack, might be measurably different from the **subordinate** individuals," and that "it might then be possible to pick out the **temperament** characteristics or emotional reactivity of *potential alpha or leader wolves* (emphasis mine), and of subordinates" (Fox 1971b, p.299). Furthermore, "Under normal field conditions, it seems improbable that timid, low ranking wolves would breed" (Fox 1971a, p.307). This view implies that rank is innate or formed early, and that some wolves are destined to rule the pack, while others are not.

P15


85 Contrary to this view, I **propose** that all young wolves are potential breeders and **P16**  
 that when they do breed they automatically become alphas. Even in captive packs,  
 individuals gain or lose alpha status, so individual wolves do not have an **inherent**  
 permanent social status, even though captive pups show **physiological** and behavioral  
 differences related to current social rank. Secondly, wolves in captivity breed readily, and I  
 90 know of no mature captive individuals that failed to breed when paired apart from a  
 group, as would be the case if there were inherently low-ranking, nonbreeders.

Third, in the wild, most wolves disperse from their natal packs and attempt to pair **P17**  
 with other dispersed wolves, produce pups, and start their own packs. I know of no  
 permanent dispersers that failed to breed if they lived long enough.

95 Wolves do show considerable **variation** in dispersal age, distance, direction, and **P18**  
 other dispersal behavior, and conceivably these are related to the **intralitter** variation  
 discussed above. However, unless a maturing pack member inherits a position that allows  
 it to breed with a stepparent in its own pack, sooner or later it will disperse and attempt to  
 breed elsewhere. Labeling a high-ranking wolf alpha emphasizes its rank in a dominance  
 100 hierarchy. However, in natural wolf packs, the alpha male or female are merely the  
 breeding animals, the parents of the pack, and dominance contests with other wolves are  
 rare, if they exist at all. During my 13 summers observing the Ellesmere Island pack, I saw  
 none.




Thus, calling a wolf an alpha is usually no more appropriate than referring to a human parent or a doe deer as an alpha. Any parent is dominant to its young offspring, so "alpha" adds no information. Why not refer to an alpha female as the female parent, the breeding female, the **matriarch**, or simply the mother? Such a **designation** emphasizes not the animal's dominant status, which is **trivial** information, but its role as pack **progenitor**, which is critical information.

P19

The one use we may still want to reserve for "alpha" is in the relatively few large wolf packs comprised of multiple litters. Although the genetic relationships of the mothers in such packs remain unknown, probably the mothers include the original matriarch and one or more daughters, and the fathers are probably the **patriarch** and unrelated adoptees. In such cases the older breeders are probably dominant to the younger breeders and perhaps can more appropriately be called the alphas. Evidence for such a **contention** would be an older breeder consistently dominating food **disposition** or the travels of the pack.

P20

The point here is not so much the terminology but what the **terminology** falsely **implies**: a **rigid**, force-based dominance hierarchy.

P21




# EXTENDED READING

## ***Why Wolves Are Forever Wild and Dogs Can Be Tamed*** Discovery.com

<http://news.discovery.com/animals/pets/why-wolves-are-forever-wild-and-dogs-can-be-tamed-130122.htm>

## ***Dogs, But Not Wolves, Use Humans as Tools*** Jason G. Goldman Scientific American, 2012

<http://blogs.scientificamerican.com/thoughtful-animal/2012/04/30/dogs-but-not-wolves-use-humans-as-tools/>

## ***How Werewolves Work*** How Stuff Works.com

<http://www.howstuffworks.com/science-vs-myth/strange-creatures/werewolf.htm>

## ***Interview with Suzanne Stone*** (Wolf Expert for Defenders of Wildlife) Outdoor Idaho

<http://idahoptv.org/outdoors/shows/wolvesinidaho/Sstone.cfm>

## ***About the Wolves of Isle Royale Project*** Wolves and Moose of Isle Royale Website

<http://isleroyalewolf.org/overview/overview/wolves.html>