

Adapting to Your Environment

by Jessica Edberg, International Wolf Center Intern

Imagine lying under the stars in your cozy sleeping bag near a crackling fire. You are just turning in after a long day of hiking in the woods. The stream nearby is gurgling, and the peepers are chirping, but there is a chill in the fall air. You curl tighter in your

sleeping bag and turn toward the fire for warmth. How do wild animals stay warm on brisk, fall nights without a fire or sleeping bag? How about during the long winter nights soon to follow?

Wolves and other wild animals have special adaptations or tools that

help them keep warm or cool while living in the wild. Fur is a great attribute that not only insulates wolves but also protects them.

Wolves possess two types of fur. The *guard hairs* cover the surface of the fur layer and have two main purposes. They help protect a wolf's skin, and they act as a raincoat. The moisture from rain or snow hits the guard hairs and sheds off. Guard hairs act as a barrier for the other type of fur, the *underfur*. The underfur layer does the same job as our own winter parka. It insulates the wolf during the long, cold winter months. It starts growing in late summer and sheds in late spring so the wolf can stay cool during the summer.

When the weather is harsh, wolves don't have a heated home to go into like we do—they have to find shelter in nature! During inclement weather wolves may find a stand of fir trees to hunker down in and get out of the wind. On cold days they curl up in a tight ball and cover their faces with their thick, fluffy tails to keep the cold air out and body heat in. On a sunny winter day they may find a nice spot out of the wind to catch the radiant heat from the sun's rays. Hot, buggy days may send a wolf to the shady refuge of the forest or into a burrow to escape the biting insects common in summer. Cooling



off in water is also a great option. To avoid the heat of the day, during summer wolves move more at night.

Wolves have adapted well to their environment. The amount of fur they grow is regulated by where they live.

A wolf inhabiting North Carolina doesn't need as much underfur as a wolf in Alaska. These adaptations are similar to our own. We humans have developed clothes such as parkas, hats, mittens and boots for winter, and shorts, tank tops and sandals for summer—not to mention having houses with heating and air conditioning! What other adaptations can you identify that help wolves survive a life in the wild? ■

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WORD FIND

See if you can find the words listed below. Words may be vertical, horizontal, diagonal, forward or backward!

I	N	S	U	L	A	T	I	O	N	F	L	J	G	O
F	E	D	U	X	G	O	A	S	C	B	D	K	U	L
K	Z	C	V	M	E	S	P	R	I	N	G	L	A	P
H	E	B	O	Y	M	D	F	H	T	K	C	H	R	E
J	E	M	I	L	P	E	V	S	H	G	Y	J	D	I
U	R	N	U	N	D	E	R	F	U	R	O	K	H	Z
Y	F	W	A	R	M	T	H	N	V	B	L	L	A	F
D	S	A	B	O	Y	V	C	O	A	T	U	W	I	X
R	E	T	N	I	W	N	C	T	J	K	D	H	R	Q

COAT
COLD
FALL

FREEZE
GUARD HAIR
INSULATION

SPRING
SUMMER
WARMTH

WINTER
UNDERFUR

WOLF WORK

PERSON: Dr. Michael Nelson

JOB TITLE AND DESCRIPTION:

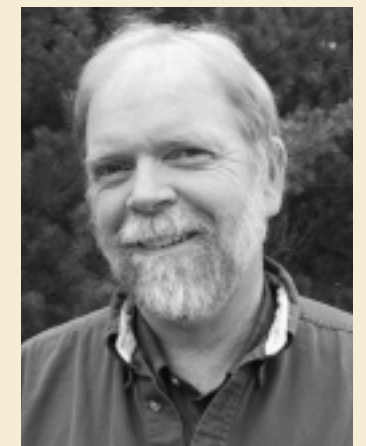
Wildlife Research Biologist. Responsible for conducting field research and gathering data, directing the experiential education of technicians (helpers), publishing the research conducted, and directing and maintaining the field headquarters.

TRAINING REQUIRED: Minimum of a master's degree in a wildlife field with training in fieldwork. A Ph.D. is most desired for this position.

SKILLS NEEDED TO DO THE JOB:

Physical ability to work in the field (snowshoeing, snowmobiling, hiking, canoeing) and an awareness of limitations. Ability to adapt to technological advances and learn new skills. Good communication skills for working with the general public and giving presentations and speeches.

ADVICE TO KIDS: Involve yourself in outdoor activities and studies of the natural world—rocks, plants and animals. Ask questions about things in nature, and go outside and investigate!



Michael Nelson is a wildlife research biologist for the U.S. Geological Survey, working out of the Kawishiwi Field Laboratory near Ely, Minnesota.