



# GRAY WOLVES



# GRAY MATTER

**Exploring the Social and Biological Issues of Wolf Survival**

SECOND EDITION

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**International Wolf Center**  
Teaching the World about Wolves

**GRAY  
WOLVES**



**GRAY  
MATTER**

**GLOSSARY**



*These words are defined based on their use in this curriculum. Some words may have additional definitions not provided here.*

**action:** behavior; conduct

**alpha:** The top rank in the social hierarchy of the wolf pack. Separate hierarchies exist for males and females in a pack; the alpha male and alpha female are usually the parents of most of the other pack members.

**animal husbandry:** a branch of agriculture concerned with the care and breeding of domestic animals such as cattle, hogs, sheep and horses

**anthropomorphism:** attributing human characteristics to animals

**attitude:** manner, disposition, or feeling about something or someone

**aversive conditioning:** method of wolf control, such as electric fences, bright lights, loud noises or livestock collars with bad tasting chemicals in them that make the wolves avoid people and livestock; these methods usually aim to frighten wolves rather than kill them.

**behavior:** the way in which an animal responds to its environment, how an animal acts

**belief:** a thing accepted as truth by a person or group

**biodiversity:** a measure of the variety, complexity and relative abundance of plant and animal species present and interacting

in an ecosystem, and the natural processes that support them; generally, a biodiverse ecosystem is thought to be a more natural and healthier ecosystem.

**biogeography:** the study of the distribution and population flux of animals and plants in a region

**body postures:** certain movements or arrangement of body parts through which wolves communicate information to one another

**bounty:** payment or reward for removal of certain species of animals felt to be harmful, paid for any individual animal killed at any time in any place where the bounty applies

**breeding pair:** reproducing male and female

**browse:** graze; usually refers to ungulates, or hoofed animals, that selectively eat certain kinds of plants

**cache:** place where food is stored for later use; wolves often cache food in a shallow hole in the ground.

**calving:** when cows give birth to calves; calves are especially vulnerable to wolf and coyote attacks.

**carnivore:** an animal that kills and eats other animals, a meat eater

**carrion:** the body of a dead animal in the process of decaying, often food for “scavenger” species that eat dead animals

**carrying capacity:** the maximum number of animals a given area can sustainably support over time

**citizens’ roundtable:** experimental decision-making process undertaken by Minnesota’s Department of Natural Resources in 1998; more than 30 stakeholder groups were invited to participate in wolf management planning for Minnesota.

**compromise:** settlement of differences in which all involved parties offer concessions

**conflict:** disagreement; two or more people having different views

**consensus:** agreement of all parties

**consumer:** an organism that gets its food or energy from other organisms

**control:** wildlife management strategy in which measures are taken to limit a species’ numbers, range or survival

**cooperation:** two or more people working together toward a common goal

**critical thinking:** the process of analytical thought

**cultural value:** ideas and feelings that a group of people hold to be very important; these concepts affect the decision making of members of that group.

**culture:** beliefs, attitudes and traditions held by a definable group of people

**decomposer:** an organism that obtains energy by converting organic material into inorganic material

**delisting:** the governmental process of removing an animal or plant from the endangered species list when its population is no longer in danger of going extinct

**density:** the average number per unit of measure

**depredation:** the act of preying upon or plundering something of human value, usually in relation to wildlife damaging agricultural products; wolf depredation involves wolves killing or injuring livestock, such as cows, sheep and turkeys.

**dispersal:** the process of wolves leaving their natal packs. Young wolves usually leave their natal packs by the time they reach 3 years of age.

**disperser:** a wolf that leaves its natal pack

**Distinct Population Segment:** a defined area within a species' range that contains a significant portion of the population

**dominance:** wolf behavior pattern in which one wolf demonstrates a higher status than another wolf; often demonstrated with certain body postures or vocalizations

**downlisting:** governmental process of redesignating a species from endangered to threatened

**economics:** the study of the flow of money through society

**ecosystem:** a community of organisms interacting within and with their environment

**eco-tourism:** tourism involving travel to areas of natural or ecological interest for the purpose of observing wildlife and learning about the environment

**endangered:** status of a species in immediate danger of becoming extinct

**Endangered Species Act:** a congressional act (16 USC 1531 et seq.) passed in 1973 and amended through the years that provides for the identification and protection of species (plants and animals) in danger of extinction or threatened by extinction in the foreseeable future

**endangered species list:** a list that the U.S. Fish and Wildlife Service compiles containing the names of animals and plants protected under the Endangered Species Act

**eradicate:** to eliminate or completely get rid of

**experimental nonessential:** designation assigned to certain reintroduced wolf populations; this status is described in a special clause of the Endangered Species Act and allows humans flexibility in managing individual reintroduced animals, allowing officials to kill or relocate individual wolves deemed to be problematic; animals reintroduced but not

possessing this designation receive full protection.

**extinct:** state in which no living individuals of a species exist anywhere on the planet

**extirpate:** the extermination or removal of a species from an entire area within its range but not from the entire planet

**fact:** something known to be true; a statement that can be proven with concrete evidence

**fluctuate:** to shift or change

**folktale:** story told orally for hundreds or thousands of years before being written down (e.g., "Three Little Pigs," "Little Red Riding Hood," "The Three Bears")

**grazing allotment:** an area of land in the United States that a livestock owner uses to feed livestock

**guard dog:** dogs specially trained to protect livestock from depredation by predators such as wolves or coyotes

**habitat:** a place that provides essential elements that the individuals of a species need to survive, such as nutrients, water, sunlight, shelter and living space

**herbivore:** a plant-eating animal

**husbandry:** the practice of raising and caring for domestic livestock (cows, sheep, turkeys)

**hybrid:** an organism that is the offspring of two parents who are of different breeds or species

**indoctrination:** to accept or teach about doctrines or principles

**interspecific strife:** conflict between members of two different species

**intraspecific strife:** conflict between members of the same species

**island:** a piece of land entirely surrounded by water; an isolated ecosystem

**legend:** stories about heroes in days long past that may have begun with historic accounts but have grown over the years (stories of Robin Hood and King Arthur are legends)

**limiting factor:** a habitat component that affects an organism's ability to survive and prevents the species from increasing its population indefinitely; examples include food availability, weather, shelter, disease and predation.

**livestock:** animals raised on a farm or ranch for meat, eggs, milk or fur production (such as cows, sheep, chickens)

**livetraps:** to capture an animal in a way that avoids killing the animal

**management:** the process of control or influence (see **wildlife management**)

**mange:** a condition caused by mange mites; these mites are external parasites that live on a wolf's skin and cause their hair to fall out.

**mediation:** the process of problem solving using an intermediary

**mortality:** of or related to deaths

**myth:** (1) a story that demonstrates cultural values and worldview; (2) something that is not considered to be literally true

**natality:** of or related to births or birth rate

**natal territory:** the home range in which a wolf is born and travels during its normal daily activities; the wolf may or may not stay within this range for the duration of its life.

**natural system:** a complex set of interactions and processes among and between living and nonliving organisms

**needs:** things required; necessities

**nonlethal control:** methods to control wolf movement or behavior that do not kill the wolf

**objective:** not influenced by personal feelings; unbiased

**omega:** lowest-ranking animal in a wolf pack hierarchy

**omnivore:** an animal that eats both plants and animals (e.g., humans, bears, raccoons and opossums)

**opinion:** a belief or idea someone holds

**overbrowsing:** excessively eating vegetative matter; overbrowsing by deer may destroy shrubs and lower branches of trees.

**pack:** a family of wolves living in close association with one another, often hunting, traveling and feeding together; usually a set of parents and offspring

**paraphrase:** restatement of an idea using different words

**parasite:** an organism that derives life by drawing nutrients from another organism, usually harming the host organism

**parvovirus** (canine): a viral disease of dogs and wolves that causes extreme drinking, dehydration and failure to eat, often leading to death

**poaching:** illegal "taking" (or killing) of wildlife

**population:** a group of individual organisms of the same species living in the same area

**predator:** an animal that kills and eats other animals to survive

**prey:** an animal that is captured and eaten by a predator

**problem solving:** looking at an issue or conflict and finding a way to deal with the conflict so that everyone has his or her needs met

**producer:** plants that create sugars and other foods from sun, soil, water and air, using chlorophyll; also an organism that makes its own food

**rabies:** a virus in mammals that affects the central nervous system; transmittal of the virus occurs through saliva.

**radio collar:** transmittal device fitted onto a wolf's neck by researchers wishing to locate the wolf periodically

**radio telemetry:** wildlife research technique used to track wolves or other animals. Individual animals wear unique-frequency radio transmitters (often encased within a collar). Researchers can pick up the radio signal with a radio receiver from 1/2 to 1 mile away on land and from 10 to 20 miles away from the air, depending on altitude.

**ranch:** a large farm, especially in the western United States, where large herds of cattle, sheep or horses are raised

**range:** the geographic area over which an entire species is distributed, usually determined by the available habitat needed by a species to survive; thus, range can change as the habitat is altered or destroyed.

**recolonization:** wolf recovery strategy in which individual animals are allowed to wander into new areas and naturally produce offspring

**recovery:** process of regaining a stable, viable wildlife population; when an endangered animal population is no longer in danger of extinction, it may be considered "recovered."

**reimbursement:** repayment; a depredation reimbursement is a sum of money paid to a livestock owner for losses due to wolves or other predators.

**reintroduction:** wolf recovery strategy in which animals that have become locally extinct are put back into strategic places within their historic range

**rendezvous site:** a place where pups, age 8 weeks to 6 months old, stay while the rest of the pack is hunting; a gathering place for the pack during the summer and early fall

**restoration:** returning an animal species to areas where it had previously become extirpated (locally extinct)

**roundtable:** a group gathered for discussion

**scavenger:** an animal that feeds on the dead remains of other animals

**scientific evidence:** systematically, accurately and objectively acquired information or proof

**social system:** the life, interactions and welfare of humans living together in a community

**solution:** answer to a problem

**stakeholder:** a person or group affected by a particular issue

**subjective:** based on or influenced by personal feelings, tastes or opinions

**submission:** wolf behavior pattern in which one wolf demonstrates a lower status than another wolf; often demonstrated with certain body postures or vocalizations

**survival:** ability to live; continuing to live

**synergy:** a situation in which the components of a natural or human-made system are more efficient or effective by acting together than they would be by acting separately

**system:** a set of interactions over time

**territory:** land or home range defended by a pack of wolves

**threatened:** referring to a species that could become endangered in the foreseeable future

**top predator:** a predator that is not hunted by other animals

**translocate:** to move from one place or position to another

**ungulate:** a hoofed animal

**validate:** substantiate; to establish by proof or adequate evidence

**value:** an idea or opinion that a person holds that guides decision making

**viable population:** a group of animals deemed to be biologically and genetically sufficient to withstand environmental influences over time

**vocalization:** uttered sounds; wolf vocalizations include growls, howls, whimpers etc.

**wants:** things desired or wished for

**wildlife management:** the application of scientific knowledge and technical skills to influence animals' habitat, behavior and abundance

