



# Wolves of Today

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## Abstract

Through the use of facilities such as the Connecticut Beardsley zoo, the Conservation Center in South Salem, NY (Westchester County) to that of wild wolf behavior from National Geographic documentary videos and reference books, we can observe the drastic differences of wolf behavior which widely depends on their environment, the food, and the amount of social contact they have within their pack.

Wolves show a great deal of dominance over their territories, packs, and the source of food available to them. This interchanging network is cultivated through the relationships wolves have with their surroundings, therefore every stimulant produces a survival reaction that is an embodiment of their behaviors. If a wolf is captive and has no reason to fight for its survival by protecting a territory or hunting for its next meal, then the wolf's behavior and instincts are cut down to more than fifty percent. The predator instincts imbedded into the genetic makeup of a wolf, makes a wolf, a wolf.

**The purpose of this study was to observe and measure wolf social and non-social behaviors in captivity and to compare these behaviors to those seen in the wild. Results demonstrated that the wolf behavioral repertoire is much reduced in captivity.**



## Research Question

**Question:** Is the wolf social behavioral repertoire reduced in captivity as compared to what has been observed in the wild?

**Hypothesis:** Some types of social behaviors wolves display in the wild do not occur in a sanctuary or in a zoo. Wolves may instead show maladaptive or stereotyped behaviors in captivity.



## Wolves at the WCC

The Wolf Conservation Center (WCC) have four ambassador wolves and a red wolf pack of 8. They interact/play with one another and assert dominance hierarchy as needed. For the red wolves, the parents are the dominant wolves but even for the pups there are dominant ones over the others pups.

### Food:

They are fed a diet of road kill deer regularly and occasionally hunt small prey that enter into the enclosure.

### Enclosure:

Some of the enclosures are 2 acres while the rest are 1 acre, plenty of space to roam and run.

### Age:

The ages range from the youngest being 10 months old and the eldest being 13 years old.

### Medication:

The oldest ambassador is on arthritis medication.

### Ambassadors:

You cannot domesticate a wolf, however ambassador wolves have a diminished fear to the presence of people and are socialized. These wolves belong to the WCC and their purpose is for education as they are ambassadors for their kind.

### Special Survival Plan (SSP):

SSP wolves reside off the exhibit, keep in the wild and away from people. This is for the wolves benefit to ensure that they will survive in the wild if they are reintroduced.

### Advantages to Zoos:

Provides larger space as well as off exhibit enclosures. Feed venison/deer.

## Wolves at the Zoo

The enclosures were really small and had close to no stimulation for the wolves.

### Red Wolf:

There were a male and female couple of Red wolves that the zoo were hopefully trying to mate. They were around 6 – 8 years of age.

They showed more "paired behavior" moving and staying close together for most of the time, even when walking around they would move at close proximity to one another. The most common behavior shown was there pacing within the cage and resting in the sun.

### Mexican Wolf:

The zoo had two Mexican wolves that were sisters of 8 years. They showed more independently activity than the Red Wolves.

The zoo staff reported that since they were both female and because of no simulation with the opposite sex would often behave aggressively to each other, sometimes fighting, therefore wolves had to be injected with medication in order to monitor their hormones and aggressive behavior. The Mexican Wolves continuously paced around in the enclosure and only at particular areas would they stop, alert, listening, and looking around, then continue pacing.

Food: Normal dog chow.

### Basic Observed Behavior:

- Sitting down.
- Licking.
- Pacing around in the enclosure.
- Sniffing and walking at the same time.
- Standing in at attention. Ears pricked up, head above shoulders, looking around.
- Jogging, head is parallel to body.
- Walking, head below their shoulders, nearly touching the ground.
- Ears twitch/move. Sideways, forward, back, rotate, flick.
- Resting. Curled up in a ball, head tucked between paws or close to tail. Head down (passive), head up (alert/active)
- Lounging. Casually lying on the ground, head resting on paws or on rocks/boulders, and still looks about, ears moving around.
- Walking Alert. Head higher than body, ears pricked up, facing forward, and moving at a trot.

## Wild Wolf Behavior

**On the brink** – Wolves are on the brink of starvation most of their lives and only live around 8 years in the wild.

**Communication** – Complex patterns of sounds, smell, posture, which are specific to rank, to communicate to each other.

**Visual Communication** – The wolf's mussel is crucial for communication and to kill prey. The alphas have distinct markings, bold lines and coloration. Biologists have a theory that different types of food eaten by the specific ranks within packs affect their color, markings and scent. For example, if a wolf has lost rank, it would eat a different part of the animal and its markings will change to lesser distinct lines.

Teeth convey dominance. For example, an adult wolf will snap above a pup's head to make them turn or lower their heads and when they become adults they'll naturally lower their heads to show respect to a more dominant pack member.

A growl, yips, yaps, and whines as well as ear positioning are all used to communicate.

**Pack** – A pack varies in size from as few as three to twenty wolves, consisting of the alpha pair, the betas, the mid-ranking wolves, and the specialists such as omegas.

The alpha pair, a male and female pair, is in charge of guiding and protecting the pack as well as their territory.

The beta is often large and stronger than the alpha but is second in command. Their job is to enforce rules/laws that the alpha pair orders.

The mid-ranking wolves are usually smaller and faster, usually in charge of chasing down prey, tiring them out, and usually are the sentries in the pack, warning if they hear any danger.

The omega, sometimes called "Cinderella-wolf," is in charge of keeping the peace if there is tension/aggression/or a fight in the pack.

**Breeding** - Usually only the alpha male is allowed to mate with the females.

**Pup School** – Young wolves receive lessons in life from the nanny, which is an elderly wolf (male/female) that is in charge of educating the young. The nanny is selected by the alpha female before the birth of the pups to continue their care and education once they are weaned at 4 – 6 weeks of age.

**Safe routes** – wolves often use well-known paths in their territory, establishing daily scent marking that become safe areas other rival packs won't attack.

**Long-distance runners** – wolves prefer to trot or lope at about 4 to 6 mph and can cover around 100 miles in a day in search for food.

**Food** – Consists of elk, white-tailed deer, and mule deer, also known to eat smaller mammals like javelinas, rabbits, ground squirrels and mice.

Wolves are nocturnal and have adapted to hunting at night in order to avoid the most human contact.

**Howling** - Wolves howl in order to communicate, celebrate, and create the illusion that there are more numbers in their pack, so that rivaling packs won't attack.

## Conclusion

The conclusion is that yes, the behavior of wolves are greatly reduced in captivity than they would be in the wild. Within the zoo enclosure, there wasn't nearly enough stimulation to excite the wolves nor did they have enough area to roam, especially the grey wolf sisters. They repeatedly paced the small space and seemed, if anything, bored. In the wild, wolves are always moving around whether it is patrolling, scent marking, or hunting they move as a pack within their established territories. The wolves at the zoo had no pack and did not show the complexity of communication shared between members of a pack. There was no point in scent marking, patrol was unnecessary, and hunting for food was needless.

They were lacking so much of their natural behavior that it was as if they'd been domesticated to dogs. Not only this but the incessant pacing displays mental imbalance. Vets have reported that a strange repetition of a behavior means that there is something wrong with the animal. For example, if a dog or cat presses its forehead to the wall, it means that something is wrong, but if they keep frequenting this behavior it is the animal showing they are in pain and suffering from an illness. The same can be said to animals pacing within their enclosures, because it isn't only wolves that demonstrate this repetitive action.

The wolves at the Conservation Center (WCC) were a lot better kept and appreciated that at the zoo. Some of the wolves had established packs and raised their own young, illustrating ranking behavior and hierarchy (alpha, beta, mid-rank, and omega). Even though they were fed, it was close to their natural diet that it didn't change much within their behavior, however at the zoo they were fed common dog food. For wolves in the wild eating a specific part of the animal is a reward for their status, and they fight to maintain that status within the pack. It is crucial to keep such a diet.

Wolves interact with many different animals in the wild, whether its scaring off scavengers such as foxes, coyotes, ravens, and crows or hunting many different assortments of food mainly elk, deer, and buffalo, they also fight over their food with bears. The behaviors of wolves in the wild are also shaped by how a pack interacts with other packs. How they maintain their territories and fight for those territories and which howling plays a major role as a warning but also to show a packs strength.

Unlike the zoo, the WCC had off exhibit enclosures keeping the animals in the wild and away from human contact. This SSP project is the best way to preserve their natural behavior as well as giving the most likely chance for the wolves to survive when they are reintroduced into the wild.

Wolves are also crucial to the habitat, keeping the deer from eating all the grass and killing trees which they are known to do by stripping the bark off of trees, this enables the grass and trees to flourish allowing other animals to live in those environments. The relationship of the wolf to its prey is not only important but also absolutely necessary for their mental stimulation. Having larger brains than the domesticated dog, wolves need to be active.

In the end, to see and understand the wolves of today, it is best to view them from a distance in their natural habitat. It is only in the wild that one can see a wolf behaving as a wolf should.



## References

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National Geographic Yellow Stone/Wolf Documentaries:

<https://www.youtube.com/watch?v=gqkjgXHO1VU>

<https://www.youtube.com/watch?v=IM5PdNSPeZc>

Beardsley Zoo

The Wolf Conservation Center

Pictures from WCC

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