

# Five Senses of the Wild Turkey



All animals have five senses, and the wild turkey is no exception. What differs between each organism is the relative importance of the sense, which is based on how well-developed the sense is and the behavior of the animal. While humans use all five senses every day, turkeys rely more strongly on three of the five.

To help us understand the five senses of the wild turkey, Bob Eriksen, retired regional biologist for the NWTF, ranked them in order of importance and explained how turkeys use each.

## 1. Vision

"Vision is used to locate food items, catch potential prey insects and keep safe while running or flying," Eriksen said. "Wild turkeys have the ability to detect movement and assimilate detail very quickly. Their excellent daylight vision is often relied on when hearing is impaired by wind and rain."

According to "The Wild Turkey; Biology and Management," compiled and edited by Dr. James G. Dickson, wild turkeys have flattened corneas and can see colors to some degree. Their eyes are located on the side of their head, meaning they have monocular, periscopic vision.

"Humans have binocular vision and can judge distance quickly," Eriksen said. "Wild turkeys overcome their monocular vision by turning their heads to better judge distance. The bird also has better peripheral vision than humans."

The book mentions rotating their head allows for a 360-degree field of vision.

Sight is essential for communication purposes, locating food and identifying potential threats to survival.

## 2. Hearing

"Hearing supplements vision by attracting attention to the source of a sound," Eriksen said. "Hearing allows the bird to detect a threat if its eyes are occupied on finding food. Wild turkeys have an uncanny ability to locate the source of a

sound. When they identify a noise, their immediate response is to look in the direction of the sound, allowing them to react quickly to predators or other environmental factors.”

Outstanding hearing is an asset to all prey species. Dickson's compilation of wild turkey experts reveals that a wild turkey's hearing is acute, although its external ear lacks a flap, or pinna, which concentrates sound waves. Field observations suggests turkeys hear lower-frequency and more distant sounds than humans.

### **3. Touch**

“Touch comes into play primarily for feeding,” Eriksen said. “As the bird scratches in the leaves, an acorn or beech nut rolled under its toes can be felt allowing the bird to stop and look.”

He added that touch is not limited to just the bird's extremities. The texture and size of different foods are determined by the turkey's beak and tongue playing an important role in the sense of touch.

### **4. Taste**

According to "The Wild Turkey: Biology and Management," wild turkeys likely have the same tastes as humans: sweet, sour, salty and bitter, but still have a poor sense of taste because turkeys have fewer taste buds.

Eriksen explains that taste is related to the sense of smell and is not utilized regularly. However, taste does come into play, to a limited degree, as the bird feeds since turkeys will discard extremely bitter food items while eating.

### **5. Smell**

“Smells are interpreted by the olfactory lobes in the forepart of the brain,” Dickson said. “These lobes are small in the turkey and probably indicate a poorly developed sense of smell.”

Eriksen adds, “The olfactory sense in most birds, including the wild turkey, is poorly developed. The exceptions to that rule are vultures, condors and griffons.”

Eriksen says the sense of smell may help the bird discern which food items are best, but it's clearly the least important sense of wild turkeys.

## **Take Away Thoughts**

“Vision and hearing are the ways wild turkeys communicate with each other and how they detect possible threats to their well-being as a prey species, making them their most important senses,” Eriksen said.

Moral of the story: Don't move when a turkey is looking, and don't think about moving when they're not.

— **Cassie Scott**

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## **Article Category**

**All About Wild Turkeys**

# The Science of Gobbling



Why do birds gobble some days but not others? It's a question even the most dedicated turkey hunters ask. It's also a question biologists want to answer. Let's look at what the research says.

Studies and findings are brought to you by research from Dave Godwin, turkey project leader for Mississippi Wildlife, Fisheries and Parks, and Derek Colbert, graduate student at the University of Georgia.

## Age

Godwin found the higher number of turkeys, particularly 2-year-olds, the higher gobble count throughout the season. Two years after there are a large number of brood sightings, gobbling activity is high. More jakes translates to more gobbling the following season.

Overall turkey numbers, however, don't seem to play a role in day-to-day gobbling activities. Even when populations are high, the birds simply don't gobble much on certain days. Colbert's research may explain why:

## Weather

- Gobbling activity was highest when winds were about 3 mph, and reminded high when wind speeds increased to 6 mph. Activity tapered off after that and almost no gobbles were recorded when winds exceeded 12 mph.
- Wind direction did not factor into gobbling activity, neither did relative humidity.
- The average daily temperature played a role in gobbling activity, as birds sounded off the most when the average daily temperature was between 60 and 69 degrees. As the temperature increased, gobbling decreased.
- The average barometric pressure affected gobbling activity, as well. Lower pressure, often associated with rain, meant less gobbling. Birds were most active at 29.9 to 30.2 inches, and when the pressure fell below 29.7 inches, gobbling activity decreased dramatically.

## Hunting Pressure

Many people assume hunting pressure negatively impacts gobblers, but Colbert's research did not find a link between

gobbling activity and hunting pressure. Gobbling activity varies widely during a season, but hunted birds are still vocal.

### **Hen Factors**

Biologists have long assumed there were two peak gobbling periods: one during flock break-up and a second during the start of nesting. Godwin said that's not necessarily what the data showed. Several studies indicate just one peak, and it doesn't always coincide with the peak of nest initiation, nor was it readily identifiable. Population dynamics and weather patterns can shift the peak gobbling activity by a week or more.

### **Other Factors**

Habitat also caused variations in gobbling activity. Colbert detected a considerably large percent of gobblers near water compared to other areas of the research site, but that doesn't mean toms near water gobble more. More likely, it means gobblers prefer to roost near water.

### **All in All**

Despite all the research and data, Colbert still can't look at the various weather conditions and predict gobbling activity. His study examined daily averages and not averages during the peak morning activity and therefore, his data might not help hunters much.

A turkey hunter, Colbert said the science of gobbling matters far less than one simple rule: You can't kill a turkey if you aren't in the woods.

You can read the full article in the January/February 2016 issue of *Turkey Country* magazine.

— **David Hart**

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