



On the Trail of the Wolf

Exercise on tracks

<i>Target group</i>	<i>Time</i>	<i>Time and effort needed for preparation</i>	<i>Materials</i>
Starting at 5 years old	At least 45 minutes	Medium	Roll of wolf tracks, measuring stick, tape measure or rulers, if available also tracking books or illustrations of tracks from different kinds of animals

Learning objectives

- Introduction to tracks and tracking
- Learn about the criteria for identifying animal tracks
- Make it possible to search for tracks outside
- Arouse curiosity and enthusiasm
- Understand movement patterns and gait (the ways animals walk and run)
- Physical empathy with the animal

Inspiration

Tell a story to warm up the participants and arouse their curiosity. This can be a fairy-tale like Little Red Riding Hood, The Wolf and the Seven Young Kids or Peter and the Wolf. However, other true stories or made-up stories are also suitable.

Here is an example:

A few years ago, a group of trackers was out and about in Lausitz. They studied wolf tracks every day in order to find out more about their lives. They woke up early in the morning, and full of curiosity, they started looking for new tracks. After some time, they were so good that they were able to see how fast a wolf was moving, whether it was a male or female and when the wolf passed by. By measuring the individual tracks and the distance between them, they got better and better at identifying the wolf tracks. They got down on their hands and knees in order to understand the wolf's gait (the way the wolf moved). One day, the following happened: After several hours, the group found a peculiar track. As always, they measured everything and reconstructed the animal's gait – and they were speechless. They only found three paw prints. Impossible. They must have overlooked something. They pondered their discovery. Actually, wolves sometimes step in their own tracks. However, after they had studied all the prints, there could be only one explanation: They had stumbled upon the trail of a wolf with only three paws. Or maybe not? After a little while, the trackers met with a wolf expert. They told him about the strange discovery. They hardly dared ask if there was a three legged wolf here. But, then they asked anyway. They were very surprised as their assumption was confirmed by the expert: Yes, they had guessed correctly. There is a male wolf in the area which only walks on three paws due to an injured foot. Proud of their tracking abilities, they went home satisfied and told their friends and acquaintances about their extraordinary story.

Instructions

The participants are then invited to take a closer look at the tracks on the track roll:

- They should describe what they see in detail. This includes the balls, toes and claws from several tracks and then they compare their results.
- They measure the size of several tracks, the distance between the paw prints and the length of the strides and then make a sketch with measurements. The length of the stride is the distance between the imprint from one paw to a new imprint from the **same** paw. So, for example, they measure the distance between the first imprint from the right front foot to the next imprint from the right front foot. It is worth measuring several stride lengths. Not all of them are the same length and this provides information about any

changes in pace. The length of the stride can also offer conjectures about the approximate size of the animal.

- They consider the direction of the prints and their location to one another. They discuss which direction the animal was going and which tracks come from the left and right paws.
- For this, place the participants directly at the end of the trail, or you can, for example, lay a yardstick in the middle. A string can also be used. They recognize that the width of the trail is very small. As if pulled by a string, this animal “runs a straight line” through the landscape. This gait is very typical for wolves as well as for foxes. The animals use as little energy as possible in the process.
- Now, together they should work out that they are dealing with a double track and where exactly the respective paw prints are: Right front is under, on top of it is the right rear and left front is under and the left rear track is on top.
- Now, they discuss what kind of animal the track came from. For this, they can compare the tracks on the slide to the illustrations of paw prints from different animals. This should include a comparison of different types of dogs and cats.
- The participants make speculations about the wolf’s gait, amble or contralateral movement, walking, trotting or galloping. With amble movement, both limbs on one side move at the same time, with contralateral movement the opposite limbs move at the same time. Everyone can try it for themselves.
- After they find out that they are dealing with contralateral movement and trotting, the participants will be motivated to get on their hands and knees and imitate how the wolf moved. Alternatively, two participants can depict an animal (forequarters and hindquarters).

It is also interesting to compare the tracks and stride lengths from different animals in the forest, e.g. from wild boars, deer and foxes. Additional literature is necessary for this.

Possible questions

- What do the tracks on the slide look like?
- Do you see toes, if so, how many?
- Do you see claws, if so, how many?
- What direction is the animal going? Could you identify which tracks are from the right and left paws? (*If not, you can stretch a string across the middle line of the trail.*)
- Do you see the same number of toes and claws on all of the tracks?
- What can you deduce? (*There are always two paw prints on top of one another. The print from the back paw covers the front paw.*) So where are the individual paw prints on the track roll: right rear, right front, left rear and left front? Which track can be seen and which is hidden? (*Incidentally, the front feet of most animals is larger than the back feet because they weigh more in the front.*)
- What animal could the tracks come from?
- How different are the tracks from different kinds of dogs and cats?
- How do you walk? Try it out. Do your left arm and left leg both move in the same direction, or in the opposite? Does the wolf do the same? (*The wolf moves with the front and back leg from the opposite side of their body. That means: It moves contralaterally.*)
- *How exactly did the wolf walk? Imitate it!*
- *How fast was it moving, and was it a large or a small animal?*

Variations and tips

- Older children can solve this task without assistance. They get 20 minutes to move just like the wolf on the slide and then to explain how the wolf does it.
- A game for assigning animal tracks can be found online in the materials from the “Endangered Species Suitcase”.
- An interesting video about the gaits from different animals can be found here: <http://www.youtube.com/watch?v=MM6w6jzoKnk>

You can look for animal tracks outside and see how wolf tracks can be investigated:

Now it's your turn. Go on the search for tracks. The search for tracks after snowfall or rain and in slightly muddy roads or clearings is particularly promising. When you find a trail, then look at it closely. Search for different paw prints and put a little stick next to them. Investigate the individual prints. And? Do you recognise the imprint from the ball, toes, claws or hooves? Count them and measure their size. If you want, you can measure the stride length of the animal. The length of the stride is the distance between the imprint from one paw to a new imprint from the same paw. So, for example, they measure the distance between the first imprint from the right front foot to the next imprint from the right front foot.

Make a sketch which shows all of the tracks. Don't forget to write down the length of the stride and the size of the prints. Examine all of the paw prints in this manner and then compare them. Are all of them the same size? Try to find explanations. What direction was the animal going? What print belongs to what paw? Left front, right front, left rear, right rear.

Walk through the area yourself, as you normally walk and see how your legs and arms move. Do your right arm and the right leg move in the same direction when you walk or do they go in opposite directions (so-called "contralateral movement"). This means that the diagonally opposite limbs move in the same direction. Right leg (hind leg) and left arm (foreleg) and then left leg and right arm. Use your arms and legs as hind legs and forelegs and re-enact how the animal moved! Make a guess as to how fast the animal was going and approximately how big it is. Justify your theory.

There are so many questions which you can ask the children about tracking. Here are the six most important. You should discuss these when you are outside tracking.

- *WHO left this track?*
- *WHAT did the animal do here?*
- *WHEN was the animal here?*
- *WHY was this animal here?*
- *WHERE did it go?*
- *HOW did it move?*

So, have fun!

Notes on the instructions

- Many animals walk in "energy-saving mode". This is a slight trot where the back paw frequently lands in the track from the front paw. Therefore, the imprint from the back paw is often directly on top of the imprint from the front paw. The individual imprints can only be recognised under closer inspection.
- You'll often find tracks from dogs, cats and also deer. This allows you to really explore the differences between hoofed animals and different types of dogs and cats.
- Special track stamps can be purchased in specialty stores. This way, you can lay your own tracks which can then be analysed and interpreted by children and adolescents.
- If you don't have a track stamp available, the children can also leave different gaits and ways of walking on soft ground themselves. The others can then find out who the track came from and how they were walking.
- It's also exciting to have your own area with tracks that can be observed daily. For this, you can leave a substantial footprint in a soft area, e.g. in the schoolyard or in the garden. Observe and write down how the track changes during changes in the weather. Later, this will help to estimate the age of tracks in the forest depending on the previous weather.



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