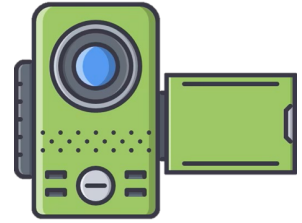


# Wildlife camera trapping



Recommended for ages **12-18 years old**

Subject: Biology and natural sciences

Duration: **minimum 4 class periods** (approximately 50 minutes each)

## Objective:

- To introduce students to the concept of wildlife camera trapping as a method for studying biodiversity.
- To develop an understanding of the importance of biodiversity and its role in ecosystems.
- To promote critical thinking and scientific inquiry skills through data analysis and interpretation.

## Materials:

- Wildlife cameras for phototrapping (or images/videos captured from wildlife cameras)
- Computer or tablet with internet access
- Projector or interactive whiteboard
- Worksheets or handouts
- Writing materials (pens/pencils, colored markers)
- Fieldguides
- Computers or tablets with video editing software

# Lesson Plan:

## Introduction (10 minutes):

Begin the lesson by asking students if they are familiar with wildlife camera trapping and its purpose in studying biodiversity. Explain that wildlife camera trapping is a method used by scientists to observe and study animals in their natural habitats without causing disturbance. Engage students in a discussion about the importance of biodiversity in ecosystems and why it is crucial to study and protect wildlife.

## Activity 1: Exploring Wildlife Camera Trapping (30 minutes):

Show students a selection of images or videos captured from wildlife cameras, displaying a variety of animals.

Facilitate a class discussion based on the images/videos, encouraging students to identify the different species observed, their behavior, and any patterns they notice.

Ask students to hypothesize why certain animals might be captured more frequently than others and discuss the factors that influence animal behavior.

Ask them If It would be possible and easy to observe all the animals at naked eye.

Distribute worksheets or handouts with questions related to the images/videos, such as identifying the species, estimating population size, or predicting the animal's role in the ecosystem.

Allow students time to work individually or in small groups to answer the questions and discuss their findings.

Here there are some webs with wildlife live cams:

SEO life cameras

[https://seo.org/cameras/?gclid=CjwKCAjw-7OIBhB8EiwAnoOEK6l9pff3AqrjyeZASpAZfSjejAxgrmoxSL0gxrelyZxGwx-ysSrZ6hoCtDgQAvD\\_BwE](https://seo.org/cameras/?gclid=CjwKCAjw-7OIBhB8EiwAnoOEK6l9pff3AqrjyeZASpAZfSjejAxgrmoxSL0gxrelyZxGwx-ysSrZ6hoCtDgQAvD_BwE)

Directo Natura Youtube. <https://www.youtube.com/user/trinoenvideo>

Africam Tembe Elephant Park. <https://www.youtube.com/watch?v=VUJbDTIYIM4>

Bears at Brooks Falls. [https://www.youtube.com/live/HsLvnFQW\\_yM?feature=share](https://www.youtube.com/live/HsLvnFQW_yM?feature=share)

Wildlife trust <https://www.wildlifetrusts.org/webcams>

### **Activity 2: Designing a Camera Trapping Study (20 minutes):**

Explain to students that they will have the opportunity to design their own camera trapping study.

Divide the class into small groups and assign each group a different ecosystem or habitat to focus on (e.g., forest, wetland, grassland, sanddunes).

Provide guidelines for the camera trapping study, including objectives, location selection, camera placement, and data collection procedures.

Allow students time to brainstorm and discuss within their groups, encouraging them to consider factors like animal behavior, habitat preferences, and potential challenges.

Each group should create a small presentation outlining their study design, including a rationale, methods, and expected outcomes.

### **Activity 3: Data Analysis and Interpretation (20 minutes):**

After each group has presented their camera trapping study design, collect the presentations and redistribute them randomly to different groups.

Instruct each group to review and analyze the study design they received, considering its strengths and weaknesses, potential improvements, and any additional information they would need.

Encourage groups to discuss their analyses and share their insights with the class.

Lead a class discussion on the importance of careful study design and the value of peer review in scientific research.

### **Activity 4: Setting Up and Using a Wildlife Camera Trap (40 minutes). Location: outdoor in the nature.**

Begin by explaining the basic components of a wildlife camera trap, including the camera unit, motion sensor, and memory card.

Show students a demonstration of how to set up and configure a wildlife camera trap using a real camera unit. (at least one for every five students)

Discuss the key considerations for selecting an appropriate location for the camera trap, such as proximity to animal trails, water sources, or known habitats. Also consider the height respect the ground and the camouflage of it to prevent detection.

Provide students with a checklist of steps involved in setting up a wildlife camera trap and ask them to work in pairs or small groups to simulate the process. Ask students to determine the best camera trap placement based on the given conditions, discuss their choices as a class and compare their rationale and reasoning.

Remember to use a 32- 64 gb sd card (some cheap cams does not allow more capacity) and alkaline batteries.

Move on to discussing the necessary precautions and ethical considerations when using wildlife camera traps, such as respecting private property rights and minimizing disturbance to animals.



#### Activity 5: Analyzing Wildlife Camera Trap Data (10 minutes):

Every fifteen or thirty days check the camera to see if everything is working ok (consider that someone can steal one of the cameras), If It is recording videos and/or pictures,

batteries level, as with the replacement is good or we should consider a change of localization.

### **Activity 6: Analyzing Wildlife Camera Trap Data (50 minutes):**

After 2 months.

Explain to students that they will be analyzing recorded videos and pictures captured by their wildlife camera traps to study the wildlife in a particular habitat. (In our case was a stream forest side)

Divide the class into small groups and provide each group with a set of recorded videos and pictures from the wildlife camera trap.

Instruct the groups to carefully observe and analyze the data, noting the different species, their behaviors, and any patterns or trends they observe.

Provide a worksheet or data analysis template for students to record their observations, including the species identified, the frequency of each species, and any interesting behaviors observed.

Encourage students to use field guides, online resources, or expert assistance (if available) to identify any unfamiliar species in the recordings. Suggest the app Seek.

Once the groups have completed their data analysis, have them present their findings to the class, sharing the species they identified, any notable behaviors observed, and any patterns or trends they noticed.

Facilitate a class discussion based on the presentations, motivating students to compare and contrast the findings from different groups, and draw conclusions about the wildlife diversity and ecosystem dynamics in the studied habitat.

### **Activity 6: Creating a Wildlife Camera Trap Video Project (60 minutes):**

Explain to students that they will be using the recorded videos and pictures from the wildlife camera traps to create a video project showcasing the wildlife and their behaviors in the studied habitat.

Divide the class into small groups and assign each group a specific theme or focus for their video project. For example, they can create a video highlighting a particular species, showcasing different behaviors, or emphasizing the importance of biodiversity.

Provide guidelines for the video project, including a suggested duration (e.g., 3-5 minutes), required elements (such as an introduction, narration, captions, and credits), and any specific video editing software or tools that will be used. Give students time to review and analyze the recorded videos, selecting the most compelling and relevant footage for their video project.

Instruct students to develop a storyboard or outline for their video, organizing the selected footage and planning the sequence of scenes or shots.

Introduce students to video editing software or tools (if necessary) and provide a brief tutorial on how to use them effectively. [Capcut](#) could be a good editor and it has the possibility to edit online.

Allow students ample time to edit and compile their video, adding narration, captions, background music, and any other creative elements they wish to include.



Encourage students to consider the overall flow and narrative structure of their video, ensuring that it effectively communicates their chosen theme or focus. Once the video projects are completed, provide time for each group to present their video to the class or school, explaining their chosen theme and highlighting the wildlife behaviors showcased.

Prompt students to reflect on the implications of their findings and discuss the importance of studying wildlife using camera trap data for ecological research and conservation efforts.

### **Assessment:**

Evaluate student participation during class discussions and group activities. Assess students understanding through their responses on worksheets or handouts. Review the quality of group presentations, videos and analyses of camera trapping study designs. Encourage students to submit reflections or short essays on their learning experiences throughout the lesson.

### **To learn more:**

Lessons in Life Science <https://www.lessonsinlifescience.org/camera-trapping-lessons>  
Schools camera trapping project.  
<https://www.nature.scot/professional-advice/young-people-learning-outdoors-and-developing-skills/schools-camera-trapping-project>.  
Green teacher. Camera trapping . <https://greenteacher.com/camera-trapping/>  
WWF Camera trapping <https://www.wwf.org.uk/project/conservationtechnology/camera-trap>  
Camaras trail <https://camarastrail.com/pilas-camara-caza-trailcam-autonomia/>  
Exploring Nature th [Qué pilas usar para las trail cam o cámaras de caza](#)  
Rough a New Lens <https://eric.ed.gov/?q=live+cameras+wilde+life+&id=EJ1036874>

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