



INCREASING THE EFFICIENCY OF CAMERA TRAP IDENTIFICATION USING ARTIFICIAL INTELLIGENCE

CAMERA TRAPS ARE A COMMON METHOD USED TO INDIRECTLY MONITOR WILDLIFE POPULATIONS. AS THEY GROW IN POPULARITY, MORE CAMERAS ARE BEING DEPLOYED ACROSS LANDSCAPES, CAPTURING THOUSANDS OF IMAGES PER DEVICE.

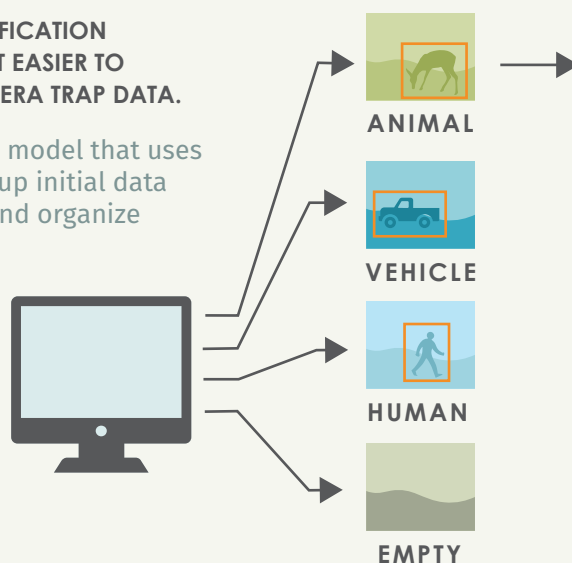
Sorting images manually takes hours of labour. Much of this time is often spent filtering through empty images, or those containing vehicles and humans that not of interest to many projects.

RECENT ADVANCES IN IMAGE IDENTIFICATION TECHNOLOGIES ARE NOW MAKING IT EASIER TO DETECT AND FILTER ANIMALS IN CAMERA TRAP DATA.

MegaDetector is a computer vision model that uses artificial intelligence (AI) to speed up initial data processing by helping to identify and organize camera trap images.

HOW IT WORKS

IMAGES ARE CLASSIFIED INTO FOUR CATEGORIES USING MICROSOFT'S MEGADETECTOR AI ALGORITHM.



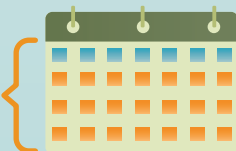
ANIMAL CLASSIFIED IMAGES ARE THEN VALIDATED AND CLASSIFIED AT THE SPECIES LEVEL BY HUMANS.

WHAT IT CAN ACHIEVE

Studies using camera traps to collect data can deploy hundreds of cameras and capture several hundred thousand images.

MANUALLY

Sorting images can take **weeks to months**.



MEGADETECTOR

Images are sorted and classified in a matter of **days**.

On a regular laptop
4,000 to 10,000
images per day

On a more powerful computer
up to 250,000
images per day

BENEFITS

MegaDetector has the potential to support and increase the efficiency of large-scale environmental monitoring.



Reduced time in manual image sorting



Lower costs



Easier identification of desirable images



Publicly available with free online training resources



Canadian Conservation and Land Management

TO LEARN MORE ABOUT MEGADETECTOR AND OTHER TECHNIQUES FOR CLASSIFYING IMAGE DATA, VISIT WWW.CCLM.CA

References: MicroSoft. [Getting Started with MegaDetector](#). Github - April 2022