# Astronomy Software Now Used to Monitor Endangered Animals

*Posted May 18, 2018*

Category : Technology/Innovations

## Unlocking Word Meanings

Read the following words/expressions found in today's article.

1. ***keep track of (someone/something)*** / **kip træk ʌv** / (idiom) – to monitor or watch closely
   *Example:* The software helps users ***keep track of*** animal activity.
2. ***thermal*** / **ˈθɜr mə** / (adj) – relating to heat
   *Example:* ***Thermal*** energy comes from heat.
3. ***integrate*** / **ˈɪn tɪˌgreɪt** / (v) – to combine parts into a whole
   *Example:* The developers will ***integrate*** new features into the app's system.
4. ***distinct*** / **dɪˈstɪŋkt** / (adj) – different in a way that is easy to notice
   *Example:* The new app is becoming popular for its ***distinct*** features.
5. ***field test*** / **ˈfildˌtɛst** / (n) – a trial done in a setting where a product will be used
   *Example:* The researcher conducted a ***field test*** of the drone in a forest.

## Article

Read the text below.

A technology used for studying distant stars will now be used to **keep track of** endangered animals.

Scientists from Liverpool John Moores University have developed a **thermal** imaging system that uses an infrared camera placed on a drone to monitor endangered animals and stop illegal hunting. The camera can detect the presence of animals based on their body heat even at night when hunting usually takes place.

However, the original system could not easily recognize the species of the animals it detects. Thus, the scientists upgraded the system by **integrating** a software used in astronomy. Astronomers have used this astrophysical software for decades to measure the size and determine the age of stars based on the **distinct** heat patterns that they emit.

According to astrophysicist Dr. Claire Burke, the heat causes the species to glow in the images captured by the camera. Based on different heat patterns, the upgraded system can distinguish various species and provide details about their health condition. For instance, an animal's injured body part will glow brighter than other body parts. Burke added that the improved system can also help accurately determine a species' population, which can be useful in developing conservation initiatives.

In September last year, the scientists conducted a **field test** on South African riverine rabbits and were able to identify the ideal height to fly the drones. They plan to further test the technology on orangutans in Malaysia and spider monkeys in Mexico.

In addition, the scientists are now collaborating with a safari park and zoo in filming and photographing animals using the system. They hope to develop a database of animal species in different environments.

## Viewpoint Discussion

Enjoy a discussion with your tutor.

**Discussion A**

• What other uses of this innovation can you think of (e.g. search and rescue, disaster relief)?

• Do you think experts should invest more in improving this innovation? Why or why not?

**Discussion B**

• Why is it important to develop new technologies that aim to help conservation efforts?

• How would you evaluate your country's development of technologies that can be used in conservation efforts?

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