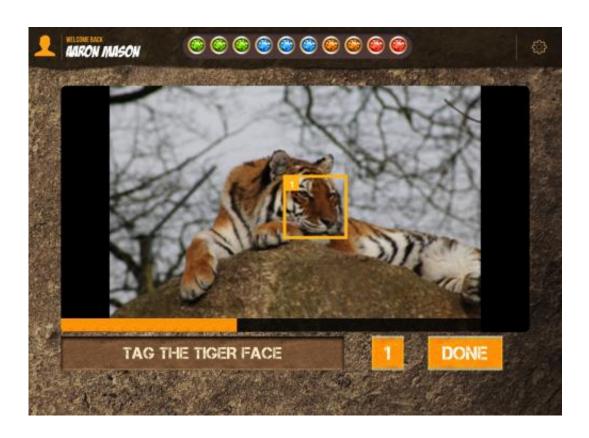


## New iPad game uses Citizen Science to track endangered species in the wild

March 18 2015



Users are asked to tag tiger faces and this information used for training a tiger face recognition algorithm. Credit: Wildsense

Today, a new app for the iPad was released that could change the way wildlife is monitored in the future.

Wildsense is an initiative from a group of researchers at the University



of Surrey. Its goal is to use <u>citizen science</u>, the concept of allowing people to get directly involved in science, to help in the conservation of rare and <u>endangered species</u>.

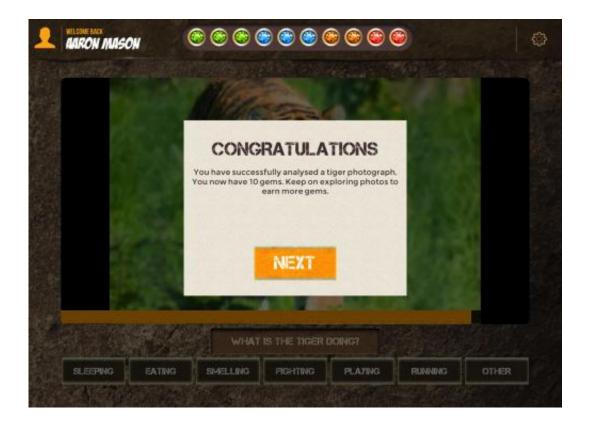
The Wildsense project team, from the Digital Ecosystem research group, has created a game that loads photos from the web that are analysed by the player in return for points. The data is then collected and analysed to study animal behaviour including movement and context.

For example, thousands of tourists visit India's tiger reserves every year and load their photographs on social media platforms such as Facebook and Instagram. This is a valuable and under-used source of data about tiger movements and habitats, which could provide important information about the activities of poachers if tigers go missing. By using the app, Citizen Scientists can then examine these photos and provide further context that does not typically exist with the image alone. For example, how many tigers are in the image, what are the tigers doing and what is their environment?

PhD student, Aaron Mason from the University of Surrey, said, "People love to share photos online and the information about wildlife through these channels is vast and potentially very useful. We decided to turn this social data into a game that consolidates information on endangered animals and lets wildlife enthusiasts have a direct impact on welfare in an interactive way.

"Our initial focus is <u>wild tigers</u>, which is a challenge as it is difficult to distinguish between photos of actual tigers from the vast number of images online. If you type the word 'tiger' in a search engine you get inundated with everything from famous golf players to baseball teams and cuddly toys. Our algorithms sort images by relevance using image metadata, which includes location, usernames and tags, successfully separating images of real tigers in the wild from other images online."





The iPad game awards participants with "gems" and their contribution is ranked on a global leaderboard. Credit: Wildsense

"Monitoring top predators such as <u>tigers</u> provides an important indication of habitat quality, as well as gaining insight into these beautiful animals themselves. The Wildsense app is an important step forward in our programme of developing methods to track <u>wild animals</u> without resorting to intrusive physical tags or collars", said Professor Paul Krause from the University of Surrey.

Mike Slee, an award-winning wildlife film maker, said: "Over 35 years of science and wildlife filmmaking I have been passionate about understanding nature and communicating through documentaries the perilous state of some of the earth's creatures and environments. The



new Wildsense app from the University of Surrey is one of the most innovative, exciting and positive ways I have seen to make this "knowledge share" accessible and practical. It is a brilliant beginning for a fresh generation of <u>citizen scientists</u> to have a real input into active wildlife observation and conservation."

**More information:** The iPad app is available for free from the Apple App Store: <u>itunes.apple.com/us/app/wildse</u> ... <u>e-tigers/id962349320</u>

## Provided by University of Surrey

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