

# iNaturalist

iNaturalist engages a community of citizen scientists to collect data that dramatically increases our understanding of wildlife species, their behavior and distributions, and the risks posed to their survival in the future.



## 3. Microsoft Azure

Observation data is sent to Azure where all observations are easily shared with scientists and conservationists.



## 2. Human and smartphone

Citizen scientists use their smartphones to capture photos of the wildlife they encounter.



## 1. Wildlife species

Animals, plants, and fungi in their natural habitats.



## 4a. Human powered species identification

Experienced naturalists identify and verify the species in photos. This provides feedback to the observer and serves as training data for computer vision models.



## 4b. AI powered species identification

iNaturalist uses AI with computer vision models to suggest species instantly from the photo. This provides a useful starting place for the observer, which can then be confirmed by experts.



## 5. Insights

Scientists can use the data to detect changes in timing (phenology), pest invasions, and climate driven range shifts as they happen. This allows conservationists to better protect species at risk.

## Challenge

Without action, 38 percent of all species are predicted to go extinct by the end of this century. Conservation decision makers lack information on when and where species occur and how these distributions are changing, which limits their ability to effectively protect species.

## Solutions

A Microsoft cloud based and AI empowered iNaturalist platform will allow every user to collect scientifically useful data on the biodiversity around them. Ultimately, the data collected by users will help scientists and conservationists better understand and protect our planet's most vulnerable species.

