



Whale Shark Conservation

One Ocean

Team Member



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We care about the ocean

Sometimes we dive, we “plog”...



Whale sharks are dying around
the world and there is a lack of
information

IUCN Red List of threatened species

whale sharks are at serious risk of **extinction**



**Combines Deep Learning and Computer
Vision technologies to understand the global
declines of whale sharks**

One Ocean Ecosystem



Citizen Scientists

PhotoID



Whale Sharks



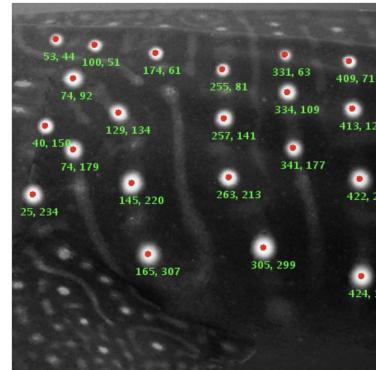
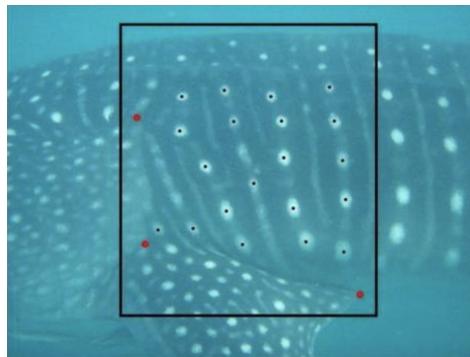
Scientists

PhotoID / Tagging / Researches



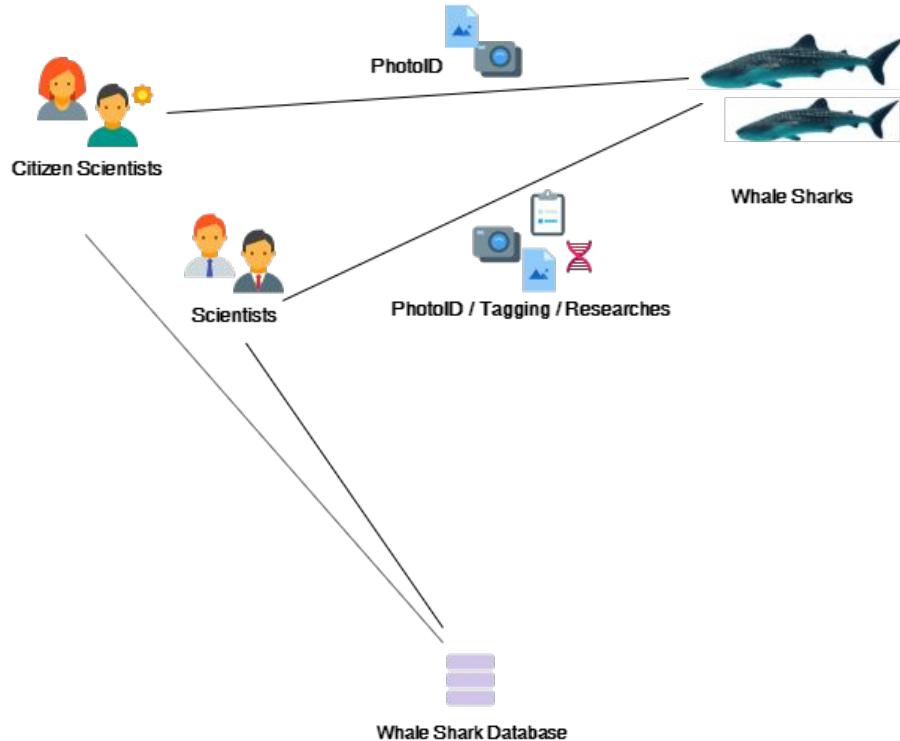
Photo-ID Technique

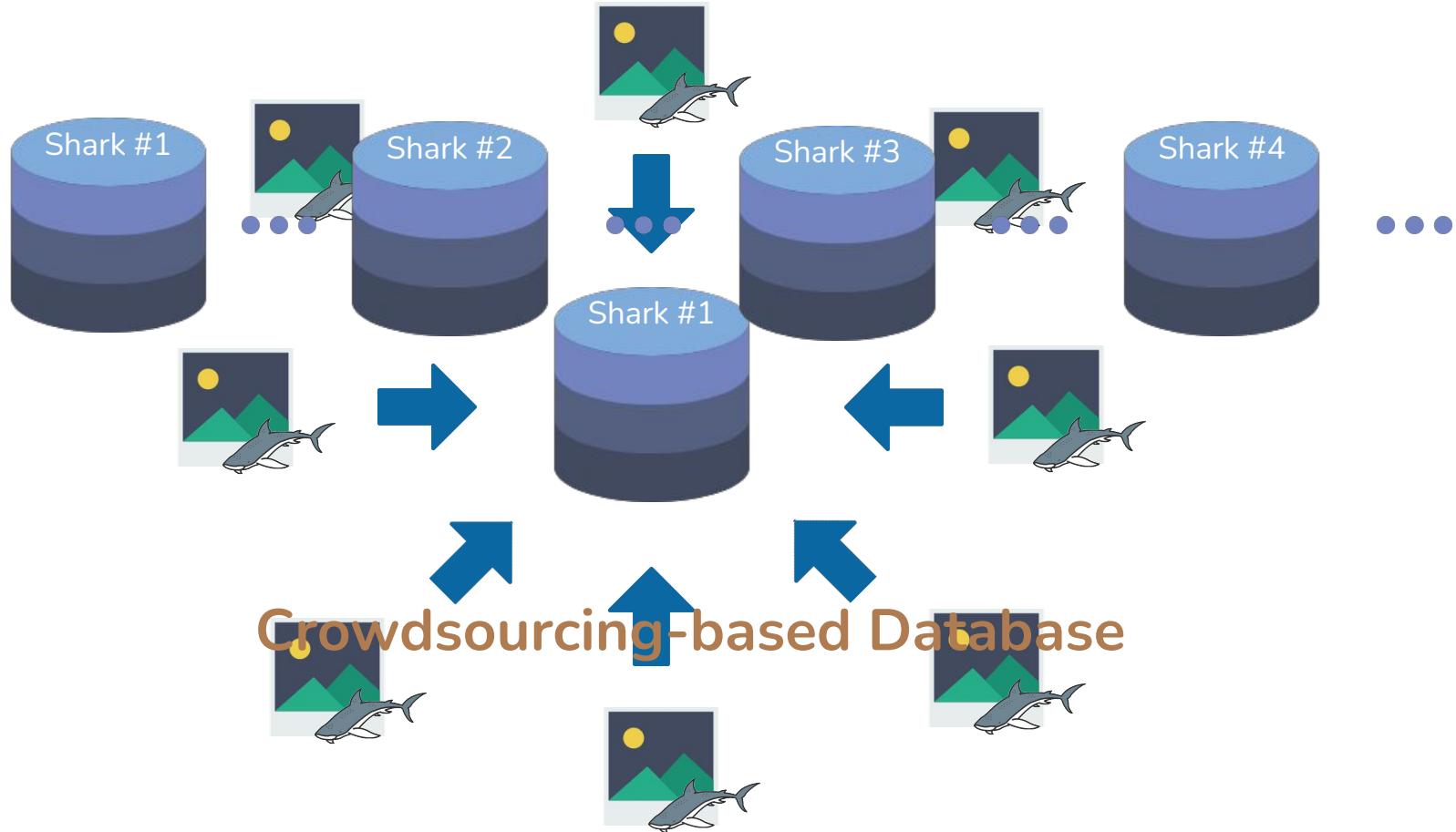
- **Image analysis** on the whale sharks' characteristics of using computer vision technologies
- **Instant identification** of different whale shark species

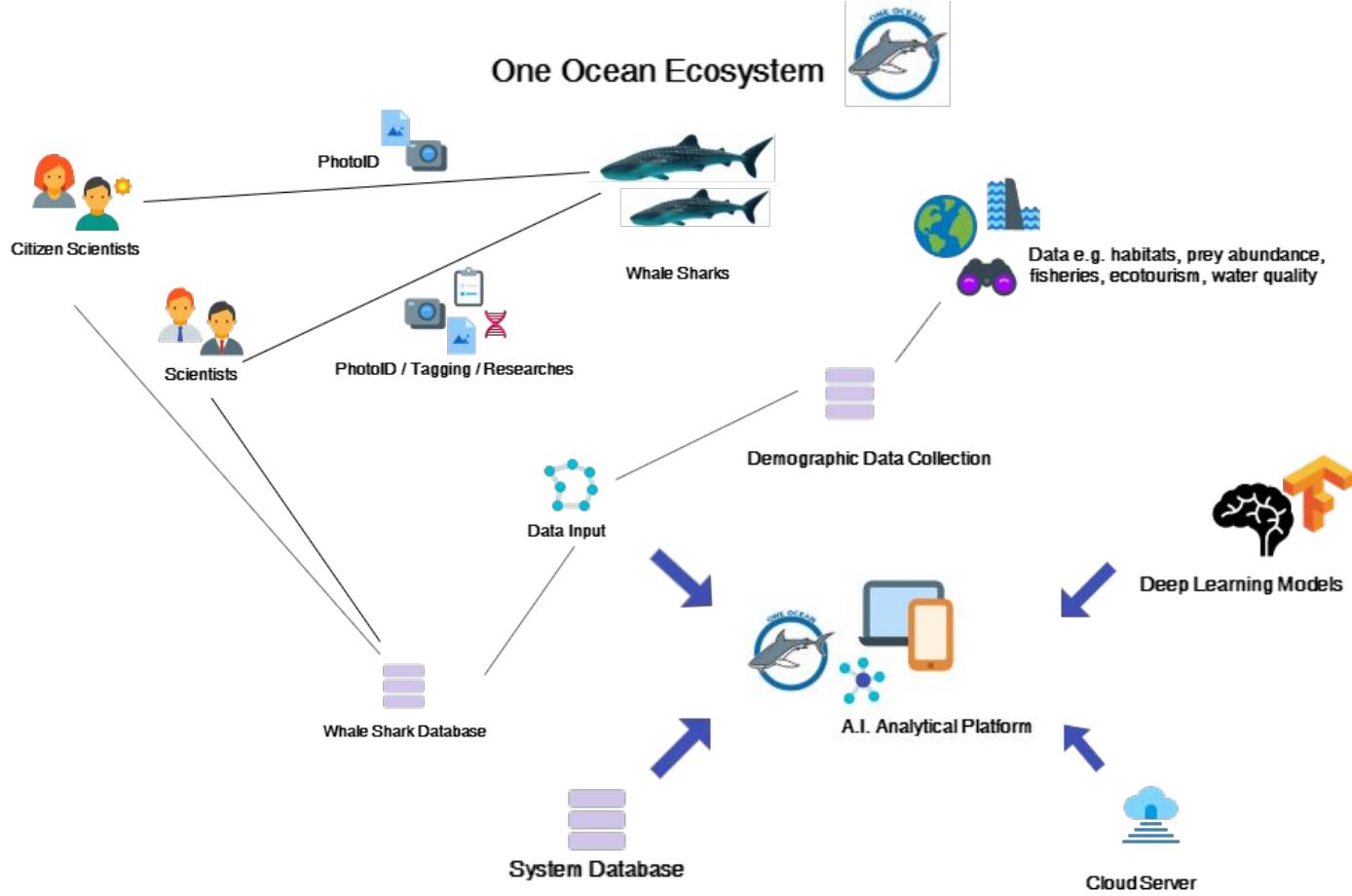


ID: 61261 / Willy
the whale shark

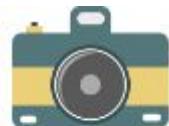
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Data Analytics



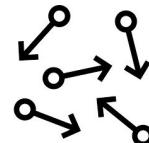
Mobile GPS
Location Tracking



TensorFlow

+

Deep Neural Network



Movement
Pattern



Frequently
Appearing Area

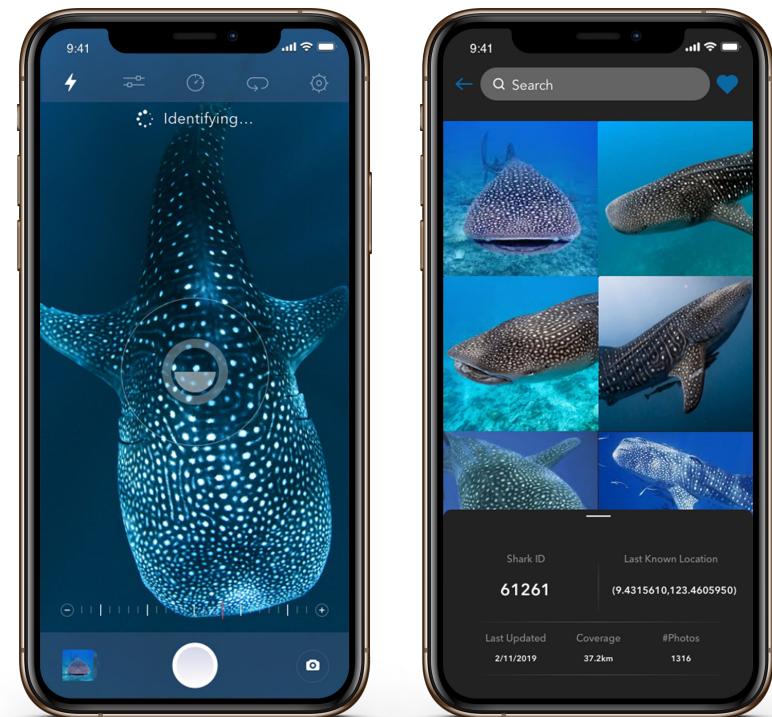
Data Collection

Data Analysis

Applications

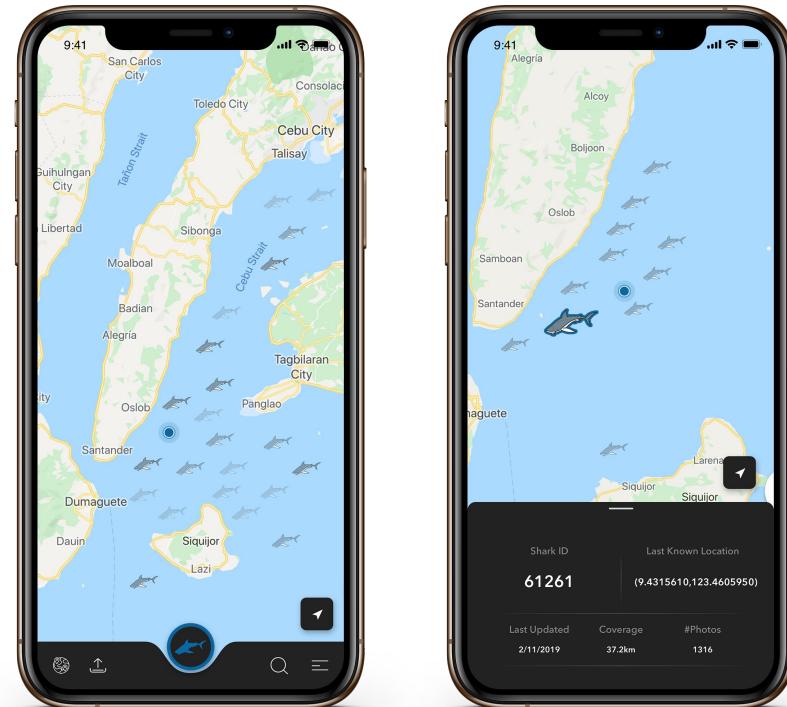
Integrated Mobile Solution

- Photos / Videos upload with mobile devices
- Automated image analysis
- Instant database matching
- Capture of whale shark data
 - Geolocation
 - Time of encountering
 - Health status
 - Size
 - Coverage of sea



Interactive Live Map

- Real time whale shark tracking
- Historical encounters
- Predictive track analysis



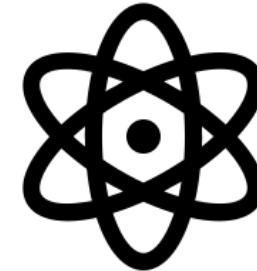
Who can engage?



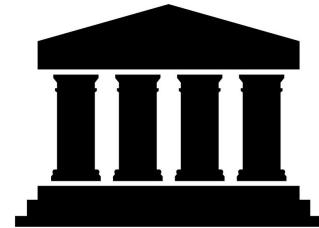
Public



Divers/Public Scientists



Scientists



Government



WWF



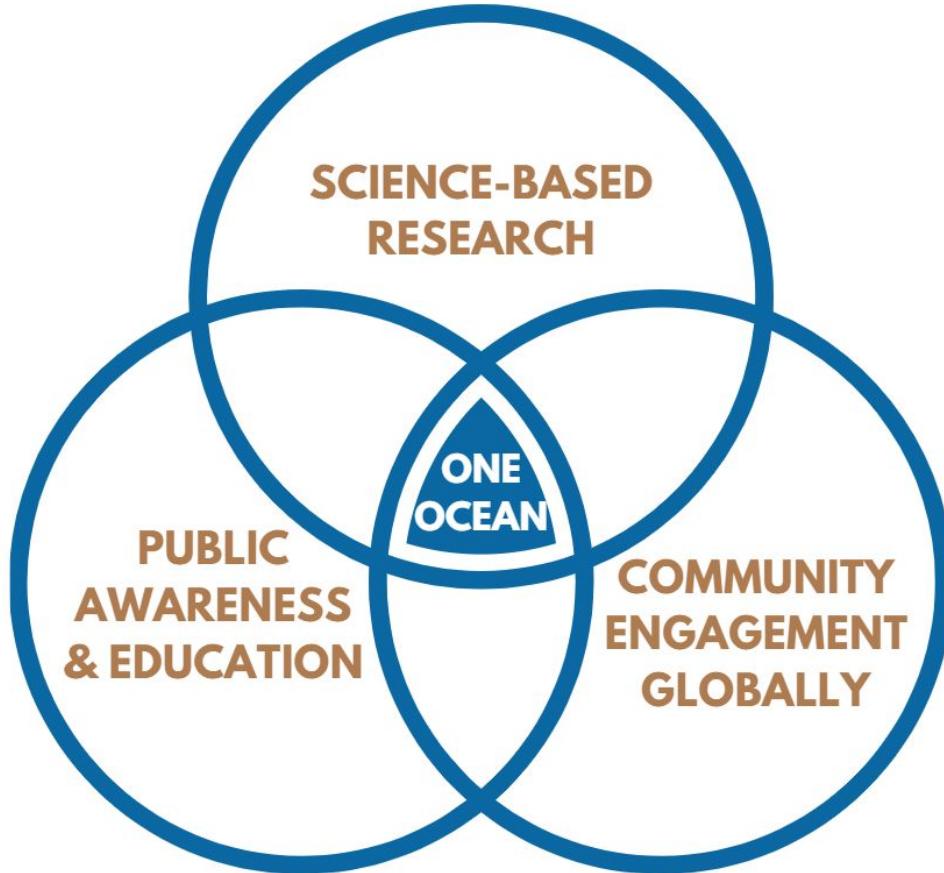
NGOs

Increase Public Awareness



Make Targeted Conservation Measures





Thank You

To those who cares about our ocean, search on!

One Ocean Ecosystem

- Integrated A.I. mobile application
- Data analysis of whale shark and global demographic data
- Real time tracking & predictive track analysis
- Consolidated study of whale shark population and migration pattern

