

tech & trash in California waters



Kate Wing April 19, 2017

technology is not
the solution

people using
technology can be
a solution

what problem
are you trying to
solve?

who needs to
use

what you make?

what do you need
to do
to smooth the
path?

be really,
really clear

design with &
build for

think: champions,
data systems,
regulations

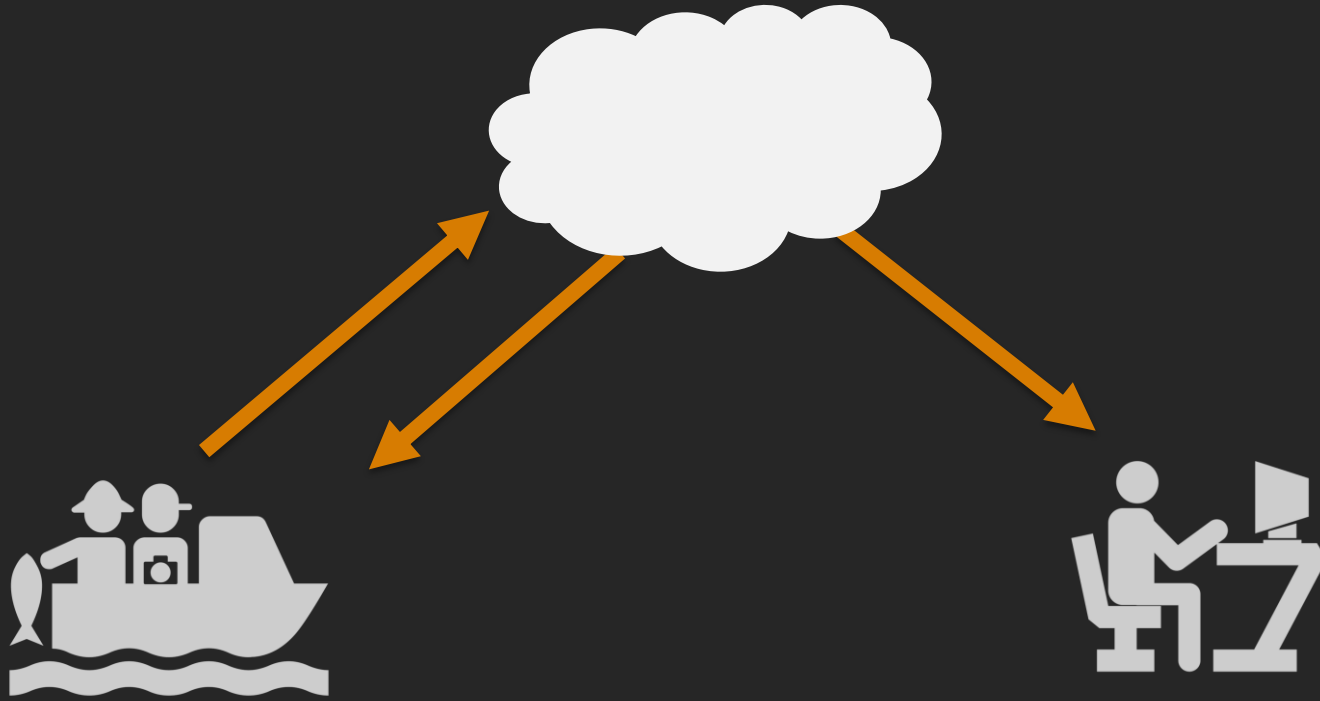
IGFA CatchLog

Accurately count & identify sportfishing catch

Designed with fishermen in mind

Partnership with State of Florida & Everglades National Park





*You caught a 24”
snook on May 4,
2016
at Flamingo Island*
**ALL DATA +
IMAGE**

*24” snook caught on
May 4, 2016
at Flamingo Island*

**SUMMARY
DATA +
REDACTED
IMAGE**

what didn't work

NOAA rejected the data

App too expensive to maintain

Fishing Trip: Flamingo

Species: Red drum

Date of Catch: 6/28/2013

Status: Released Alive

Type of Bait Used: Artificial

Details:

[Hide Additional Fields](#)

Additional Fields

Weight: 0.00 Kilograms	Length: 0.00 Inches	Girth: 0.00 Inches
Latitude: 25.1423549652 Format: 24.34234324 or 24 58 14.27 N	Longitude: -80.7953643798 Format: 24.34234324 or 24 58 14.27 N	Tide: Unknown Rising Falling Slack High Slack Low
Wind Direction:	Water Temperature:	Season:
Media Capture Device:		Moon Phase: Waning Crescent

Automated fish ID from video

Accurately count, size & identify commercial fishing discards

Regulatory requirement

Multiple service providers & hardware configurations



the magic

process

- 1. Collect & validate images**

>1500 per instance

- 2. Set up competition**

Pick a host

Rules & prize money

- 3. Turn winning algorithm into usable product**

Figure out who will maintain code

Make it easy to integrate with existing
systems



The Nature Conservancy Fisheries Monitoring

Can you detect and classify species of fish?

\$150,000 · 2,293 teams · 6 days ago

[Overview](#)

[Data](#)

[Kernels](#)

[Discussion](#)

[Leaderboard](#)

[More](#)

[Submit Predictions](#)

Overview

[Description](#)

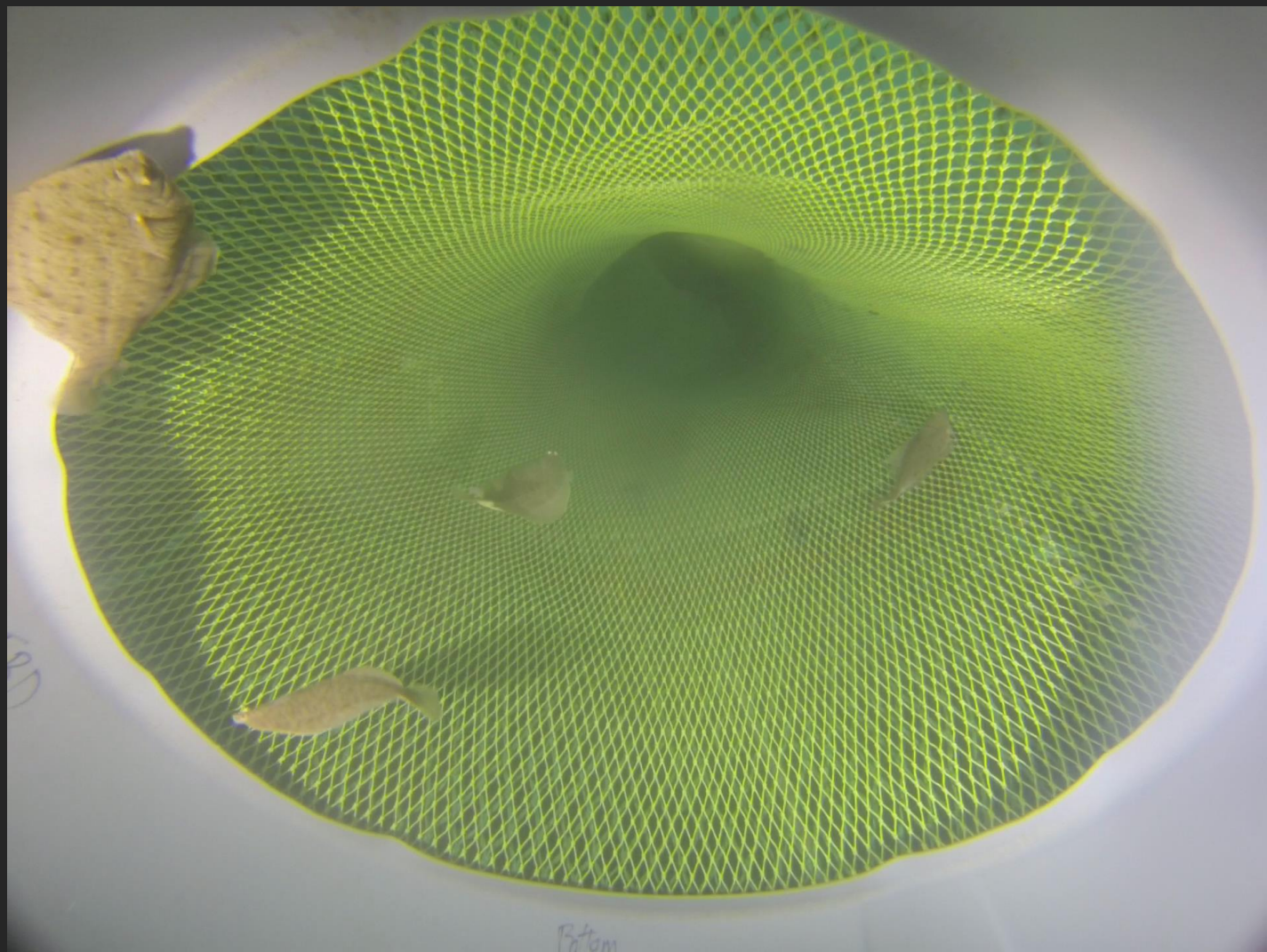
[Evaluation](#)

[Prizes](#)

[Timeline](#)

Nearly half of the world depends on seafood for their main source of protein. In the Western and Central Pacific, where 60% of the world's tuna is caught, illegal, unreported, and unregulated fishing practices are threatening marine ecosystems, global seafood supplies and local livelihoods. [The Nature Conservancy](#) is working with local, regional and global partners to preserve this fishery for the future.





challenges

Lighting!

Variety of camera set-ups

Trying to meet too many goals at once

Privacy

crowdsourcin

g

DISCOVER FLOATING FORESTS

We are trying to understand how forests of kelp grow and change over time. We need your help to find these forests in pictures from space!

2,486,625 Classifications 622,578 Images Complete 6,442 Total Users

GET STARTED

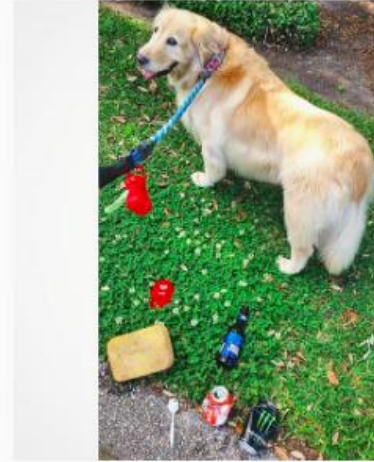


Basics of Marking

To mark an area of kelp, simply click and drag your mouse on the image. When you release, any remaining gap will be filled in to make a complete polygon.

#litterati

198,505 posts



what problem
are you trying to
solve?

who needs to
use

what you make?

what do you need
to do
to smooth the
path?

be really,
really clear

design with &
build for

think: champions,
data systems,
regulations