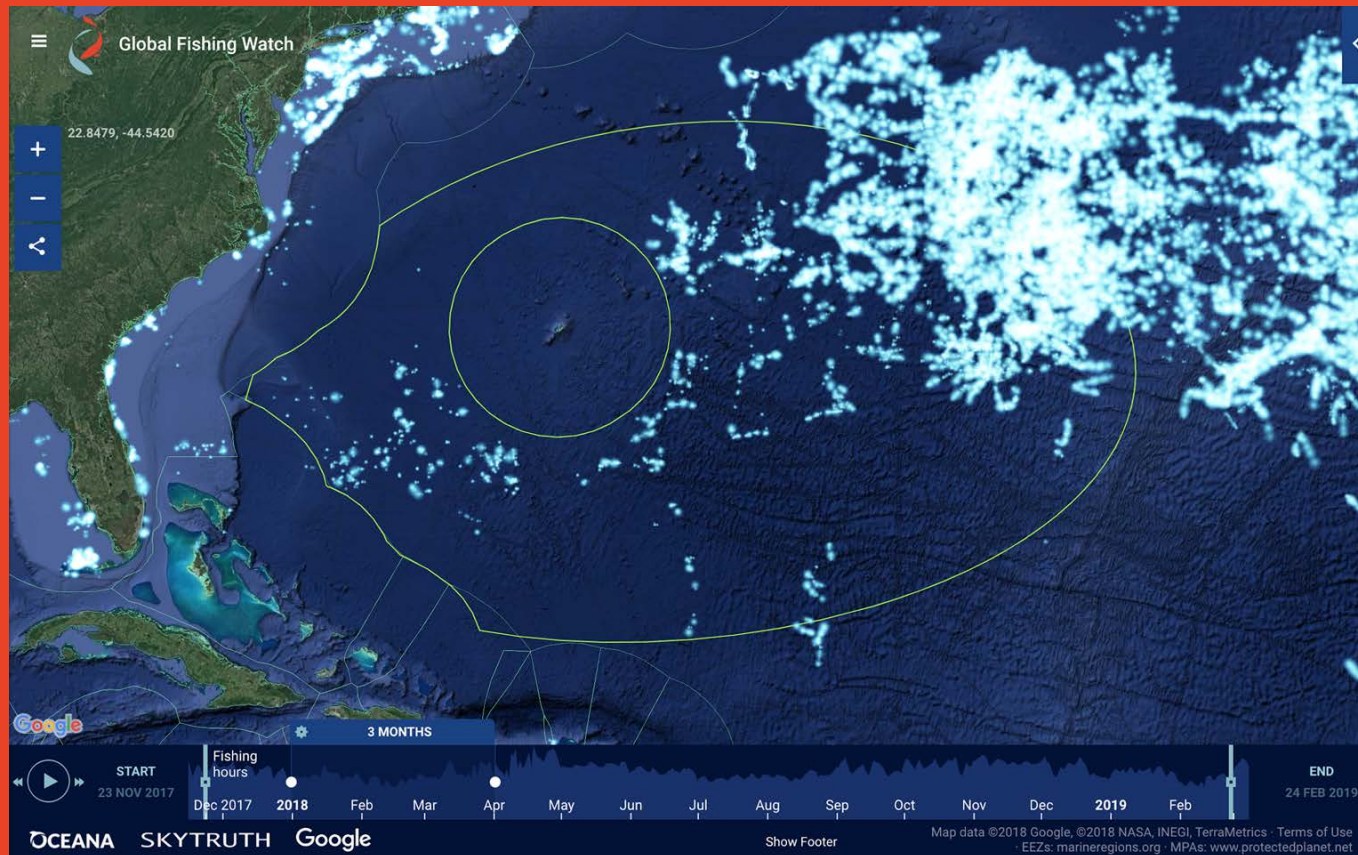


Global Fishing Watch

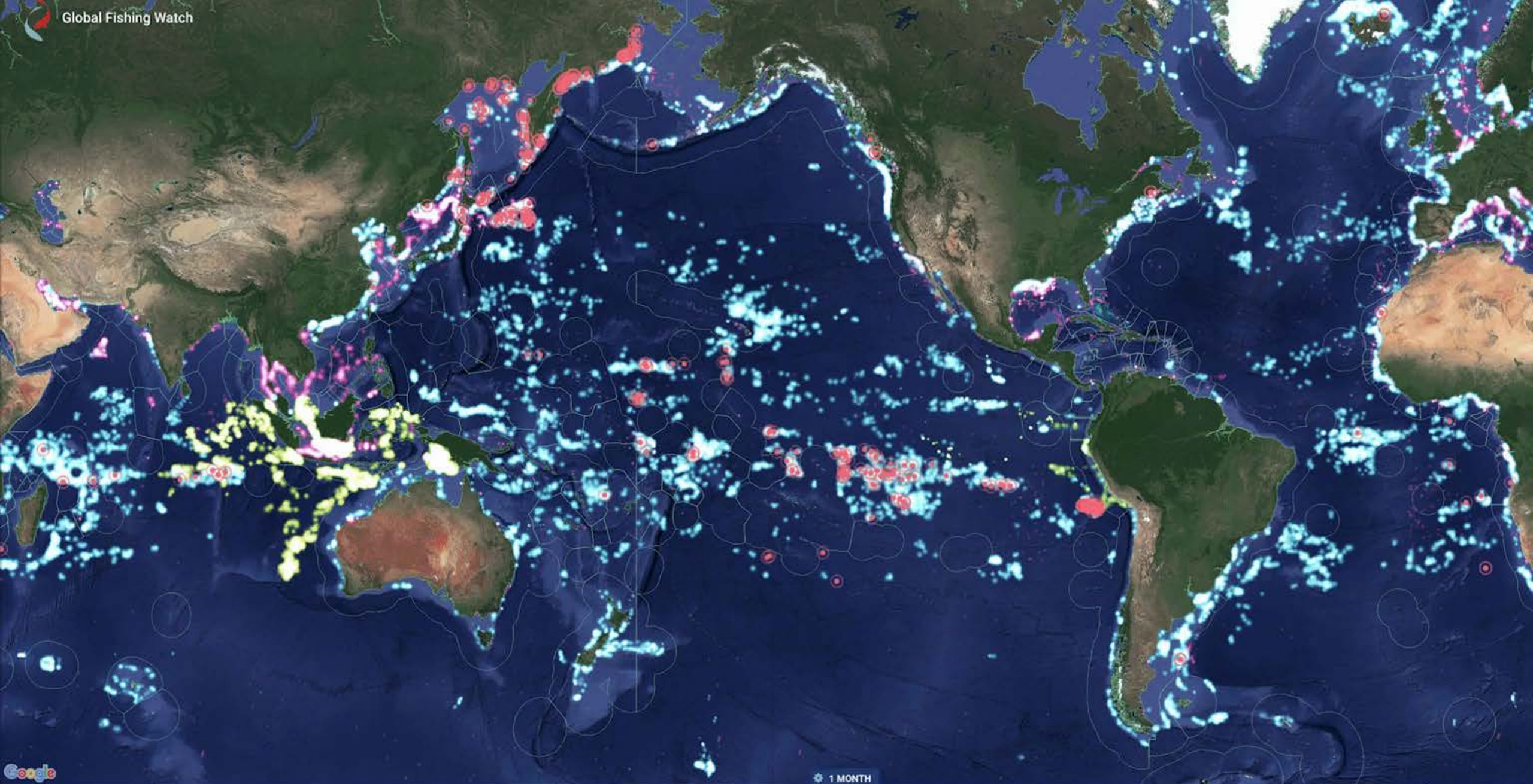
Sargasso Sea Commission
13 March 2019



Paul Woods
Co-Founder and CTO



Global Fishing Watch



Google

START 30 DEC 2016

Fishing hours

2017

April

July

October

2018

April

July

END 01 JUL 2018

1 MONTH

OCEANA SKYTRUTH Google

Show Footer

Map data ©2018 Google, ©2018 NASA, INEGI, TerraMetrics | gifs.com

**Bloomberg
Philanthropies**



LEONARDO
DICAPRIO
FOUNDATION



ADESSIUM
FOUNDATION

thewaterloofoundation*



GORDON AND BETTY
MOORE
FOUNDATION



WALTON FAMILY
FOUNDATION



OCEANA

SKYTRUTH



Global Fishing Watch

Position Statement

Transparency is crucial for good stewardship of our global ocean - to fight illegal fishing, to protect fish stocks and livelihoods, and to increase the safety and well-being of fishers.

Building Transparency
Technology - Research - Analysis - Policy



Global Fishing Watch

GFW Public Platform



Global

Shows the fishing activity of ~70,000 publicly trackable commercial fishing vessels operating in the ocean



Near real-time

Regularly updated to show vessel tracks and fishing activity from January 1, 2012 through three days prior to present time



Easy to use

Designed so both experts and non-experts can see and assess fishing activity at a glance and track individual vessels over time



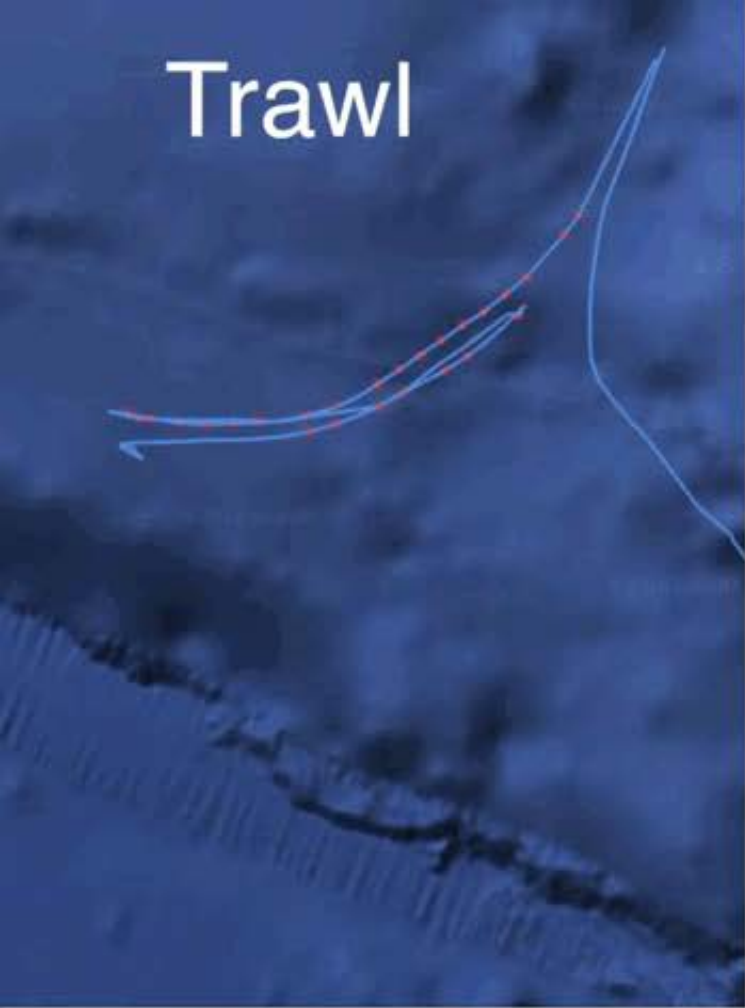
Free for everyone

Available to anyone in the world with an internet connection



Global Fishing Watch

Trawl

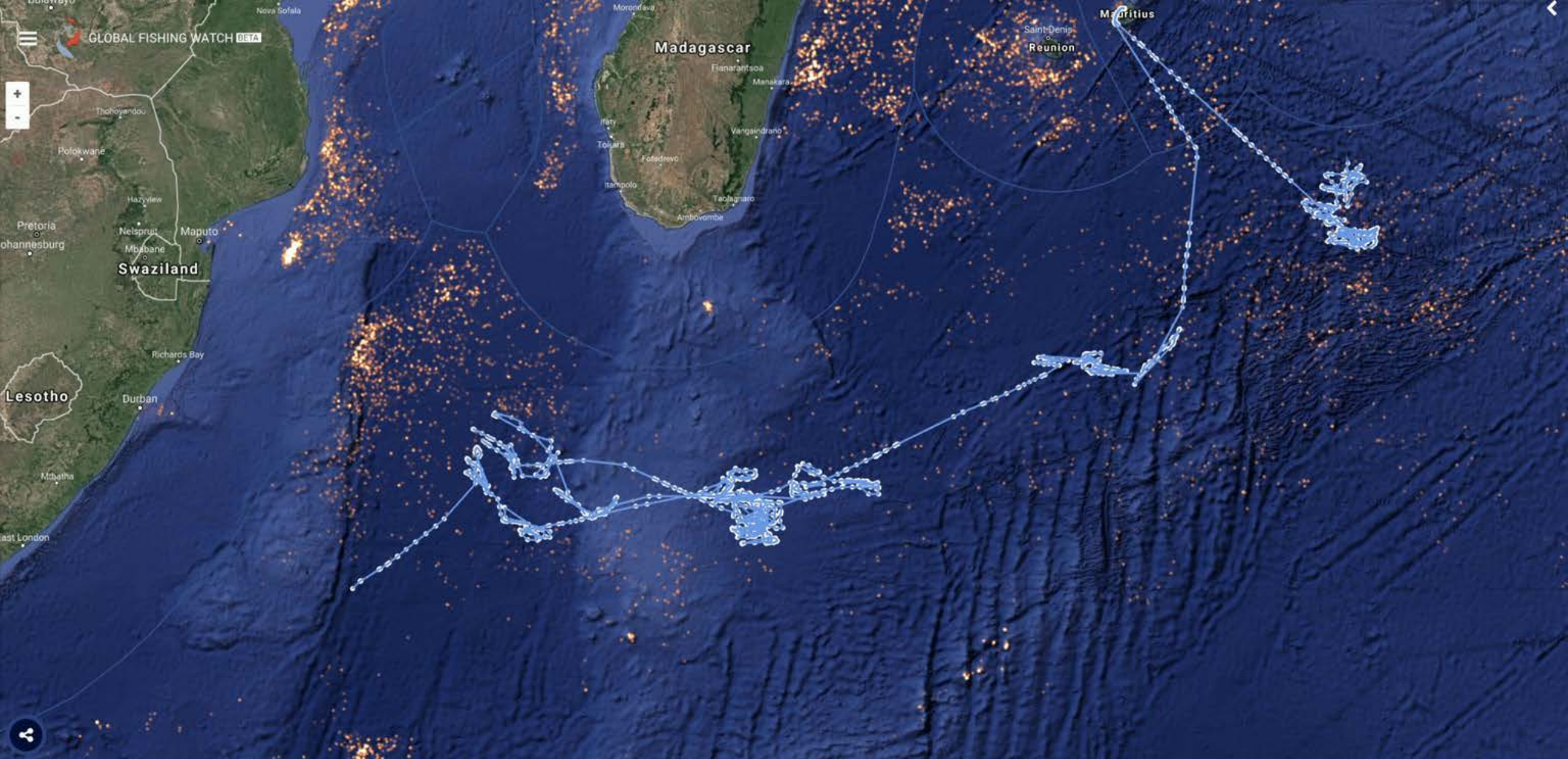


Longline



Purse Seine





12 NOV 2013

+ -

10 FEB 2014



DT

NOV

DEC

JAN

FEB

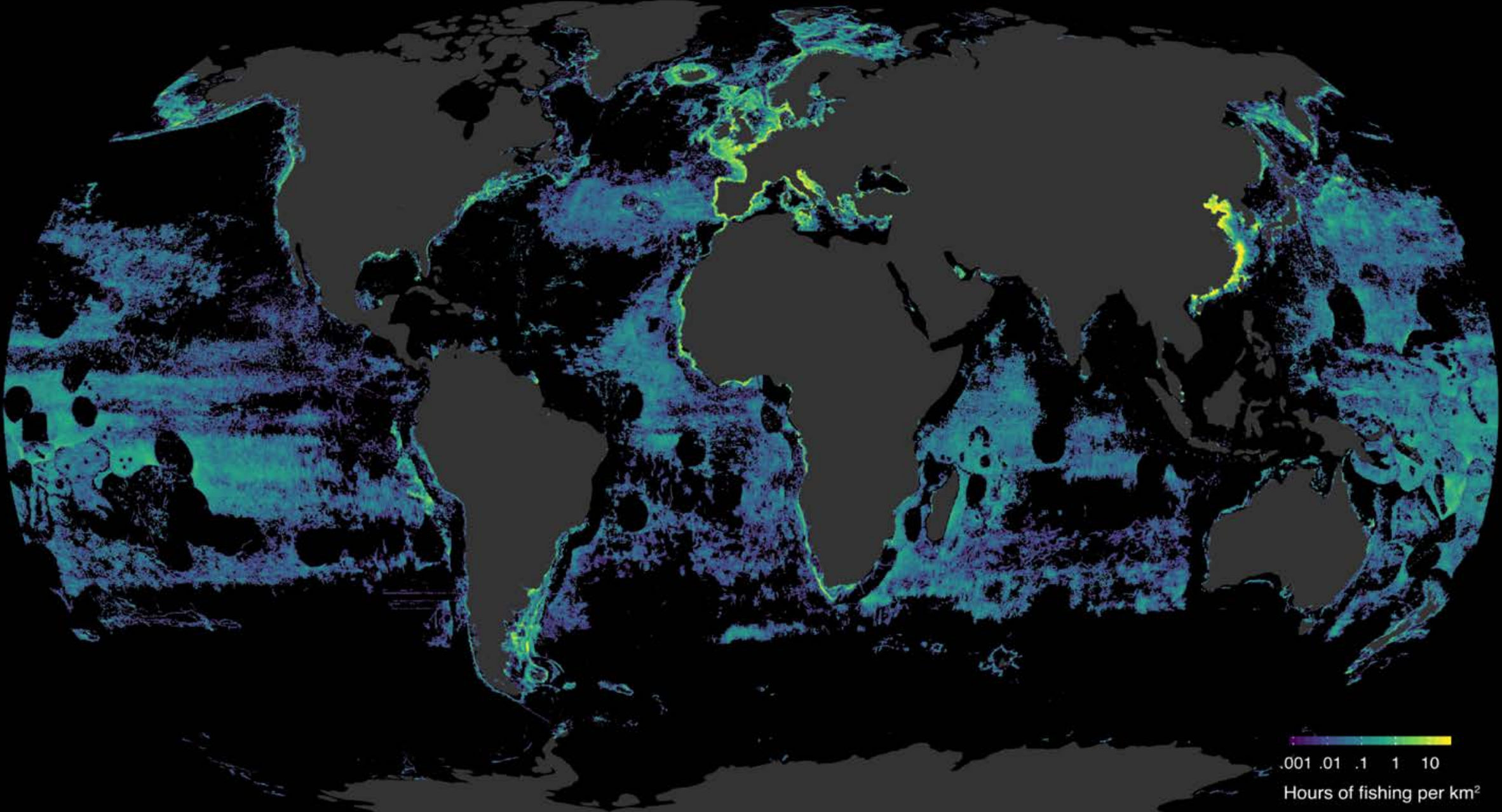
MAR

2014

90 days

-39.6226, 27.9053

Global Fishing Activity, 2016





-2.8174, -112.6758

Search vessel

- FU YUAN YU 7866
- FU YUAN YU 7861
- FU YUAN YU LENG 9...
- FU YUAN YU 7865
- FU YUAN YU 7862

RECENT VESSELS



1 MONTH



Global Fishing Watch research program

Enable global scientific, economic, and policy work that would not be possible without a large scale analysis platform & shared new data products.



3 years since inception

14 papers published

25+ papers in progress



Our results show how longline fishing effort can be predicted...

The environmental niche of the global high seas pelagic longline fleet



Guillermo Ortuno Crespo, Daniel C. Dunn, Gabriel Reygondeau, Kristina Boerder, Boris Worm, William Cheung, Derek P. Tittensor, Patrick N. Halpin. *Science Advances*. 08 Aug 2018 : EAAT3681. [Read paper](#) – [Blog](#)

[post](#) – [Press release](#)

AIS Atlas of Fishing



Global Fishing Watch

Analysis and Policy Cell

- Produce analysis that **supports at least 10 nations adopting transparency** and make these analysis as public as possible
- Improve analytical resources and fisheries management skills available to member states by **increasing the amount and quality data** on the nature of fishing available, **for free, globally**
- Advancing the body of fisheries knowledge, by making GFW data and partner research widely available



Cefas



SKYTRUTH



Global Fishing Watch

VMS Transparency Program

Public VMS	Letter of Intent	In Progress
Indonesia Peru	Costa Rica	Namibia Panama Mexico Chile

Working to have 20 countries on board within the next 5 years

**Rep. of Korea, Taiwan, Philippines, Thailand
Latin America**



Global Fishing Watch



28.4234, 138.1173



3 MONTHS



START
03 APR 2014

Fishing
hours

Jul 2014 Oct 2015 Apr Jul Oct 2016 Apr Jul Oct 2017 Apr Jul Oct 2018 Apr Jul Oct

END
11 DEC 2018



-11.1229, -66.7525



3 MONTHS



START
03 APR 2014

Fishing
hours

Jul 2014 Oct 2015 Apr Jul Oct 2016 Apr Jul Oct 2017 Apr Jul Oct 2018 Apr Jul Oct

END
11 DEC 2018



-21.2028, 20.7906



3 MONTHS



START

03 APR 2014

Fishing hours

Jul 2014 Oct 2015

Apr Jul Oct 2016

Apr Jul Oct 2017

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

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Apr Jul Oct 2018

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Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

Apr Jul Oct 2018

END

11 DEC 2018



22.8479, -44.5420



3 MONTHS



START
23 NOV 2017

Fishing hours
Dec 2017

2018

Feb

Mar

Apr

May

Jun

Jul

Aug

Sep

Oct

Nov

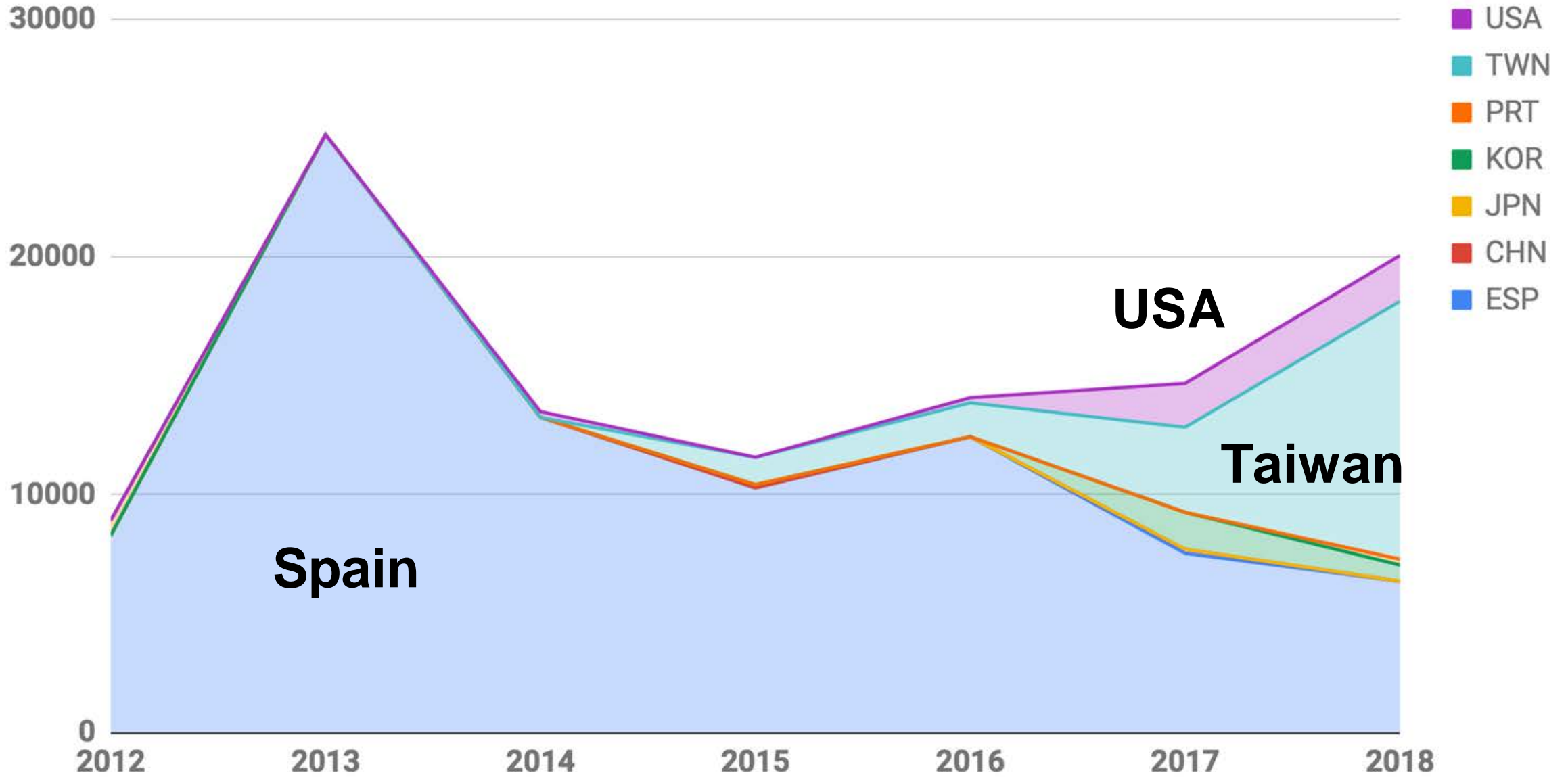
Dec

2019

Feb

END
24 FEB 2019

Annual Sargasso Sea Fishing Effort (hours) by Vessel Flag State





17.7960, -51.6985



6 MONTHS



START
01 JAN 2018

Fishing
hours

Feb 2018

March

April

May

June

July

August

September

October

November

December

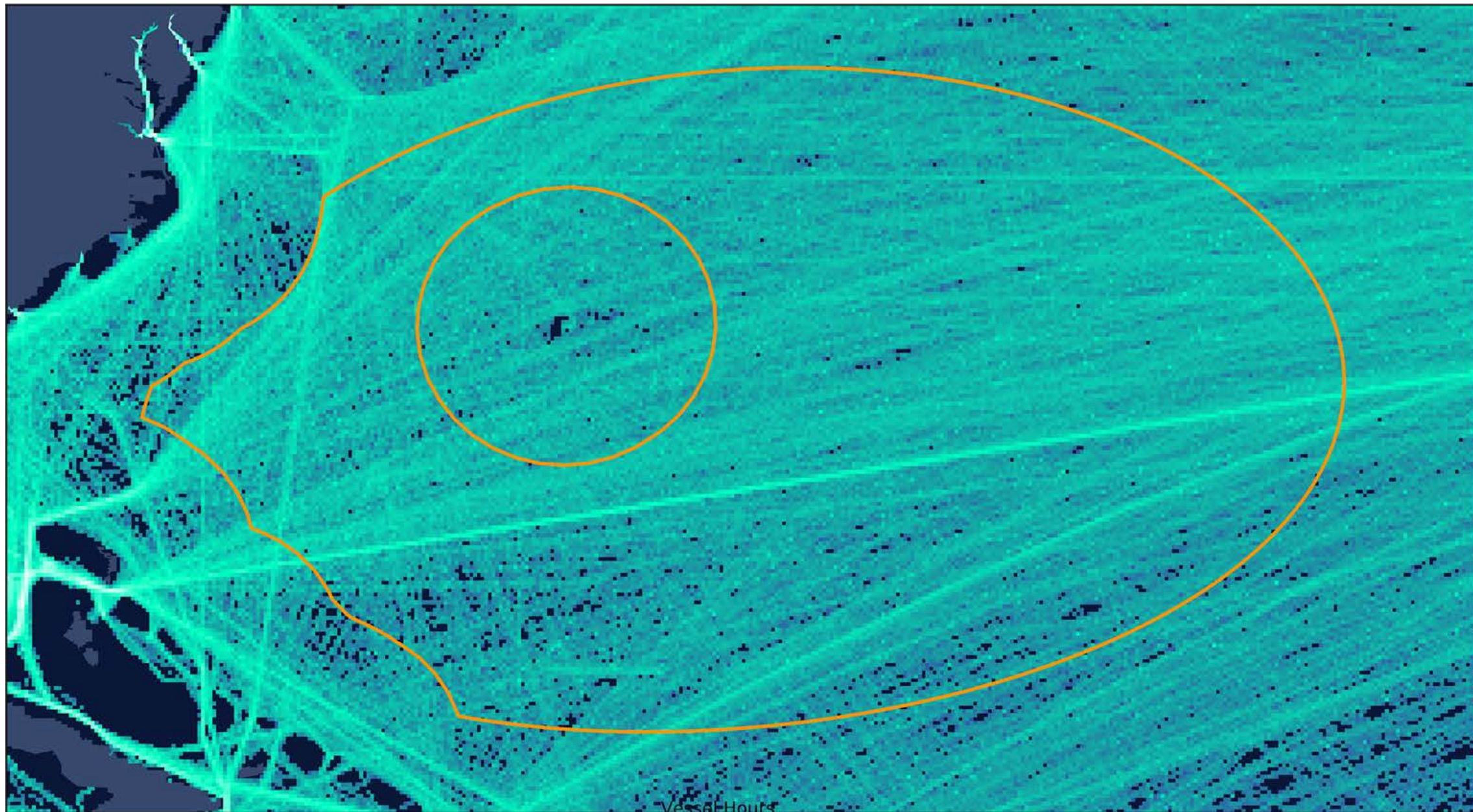
2019

February

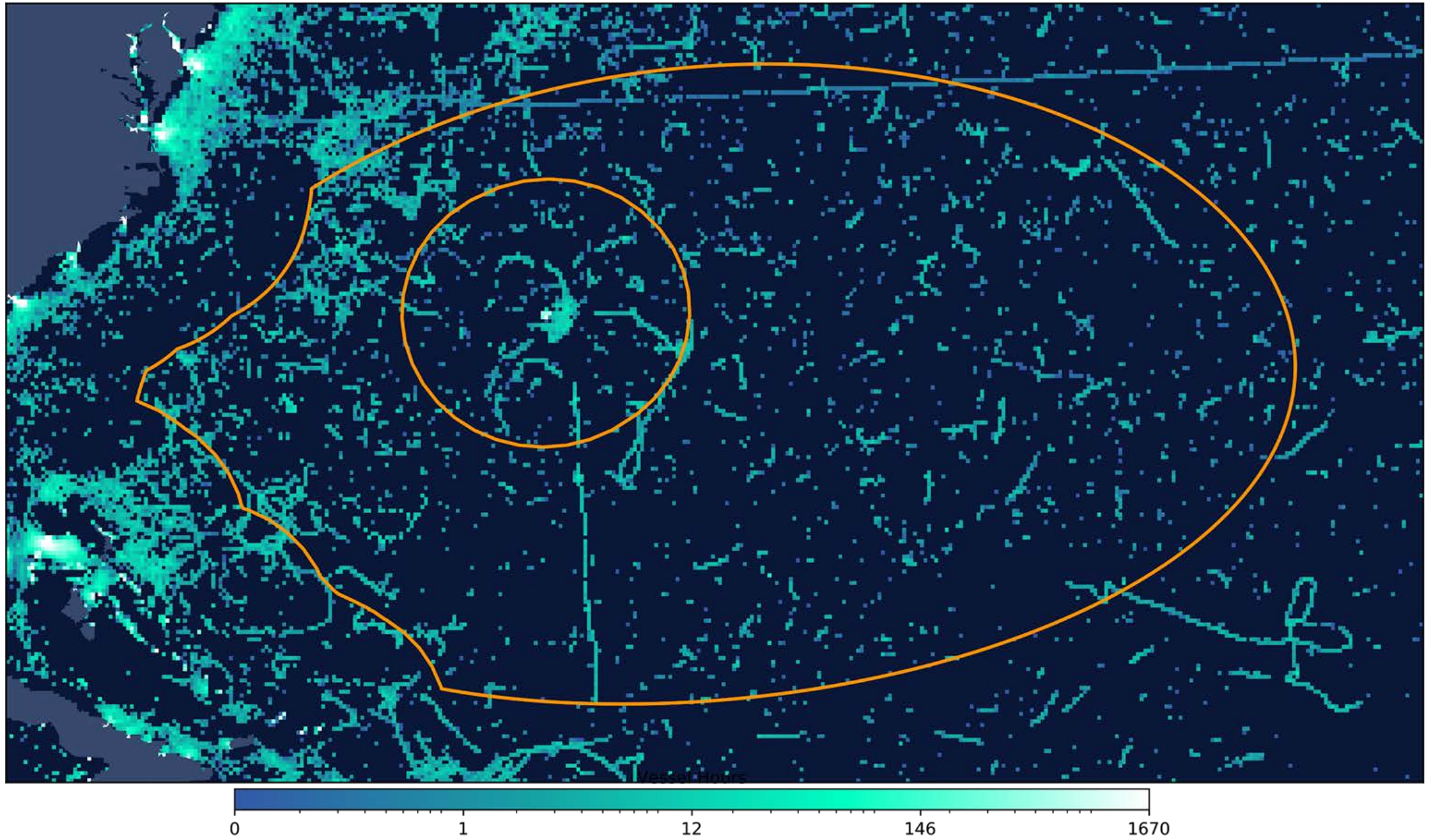
END

24 FEB 2019

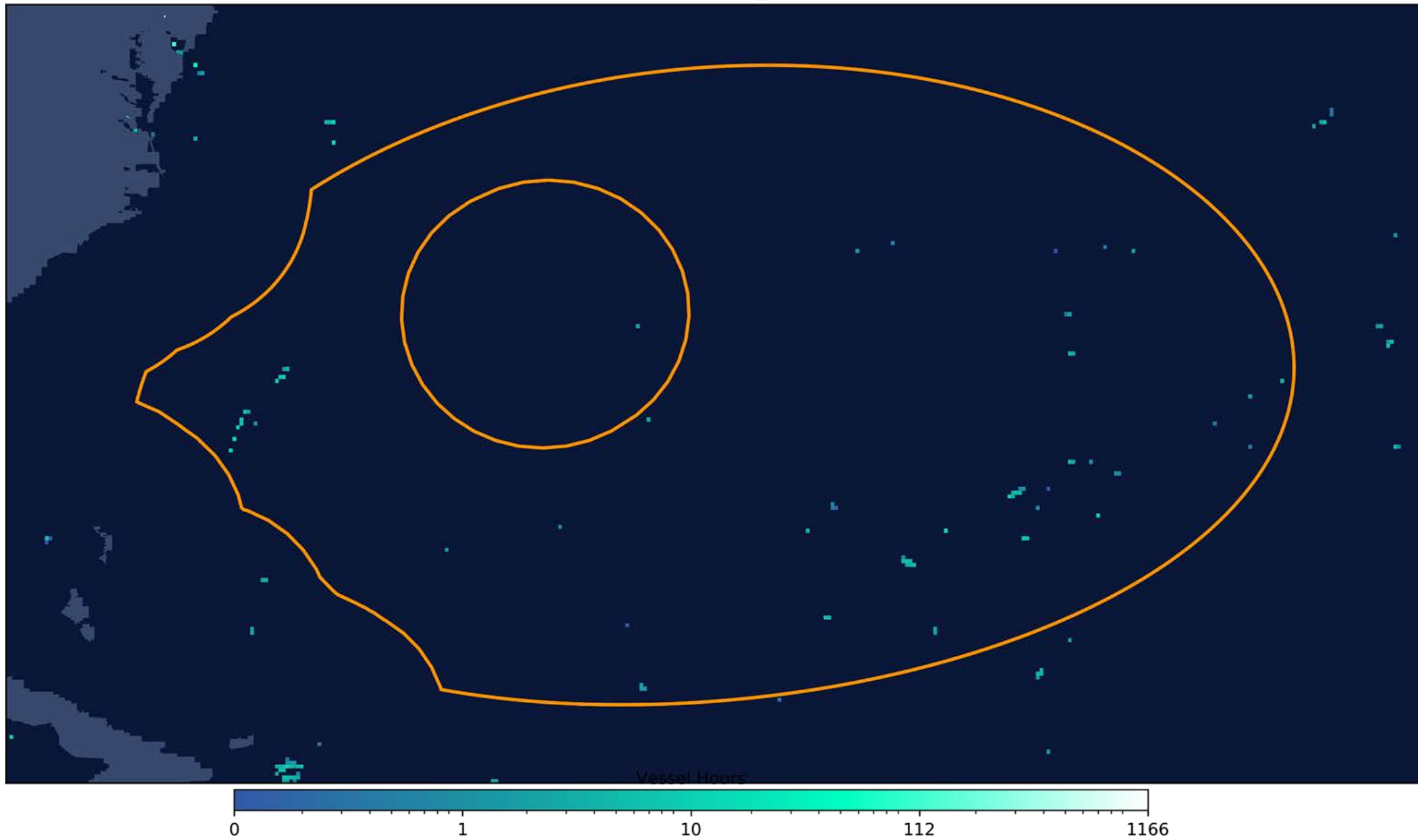
density-100M-8kn-12, 2018



density 2018



density-2kn-container_reefer, 2018



Loitering Carrier Vessels

Less than 2 knots
at least 4 hours,
10 nautical miles from shore

15 events shown here within the Sargasso Sea
6 different carrier vessels
4 flag states

Liberia (3), Bahamas, Panama, St.Kitts & Nevis





DEEP SEA MINING WATCH

Seabed mining

Biodiversity

Ecosystem impacts

About

Share



 Add layers

Key



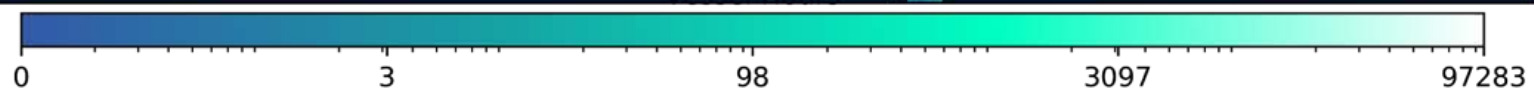
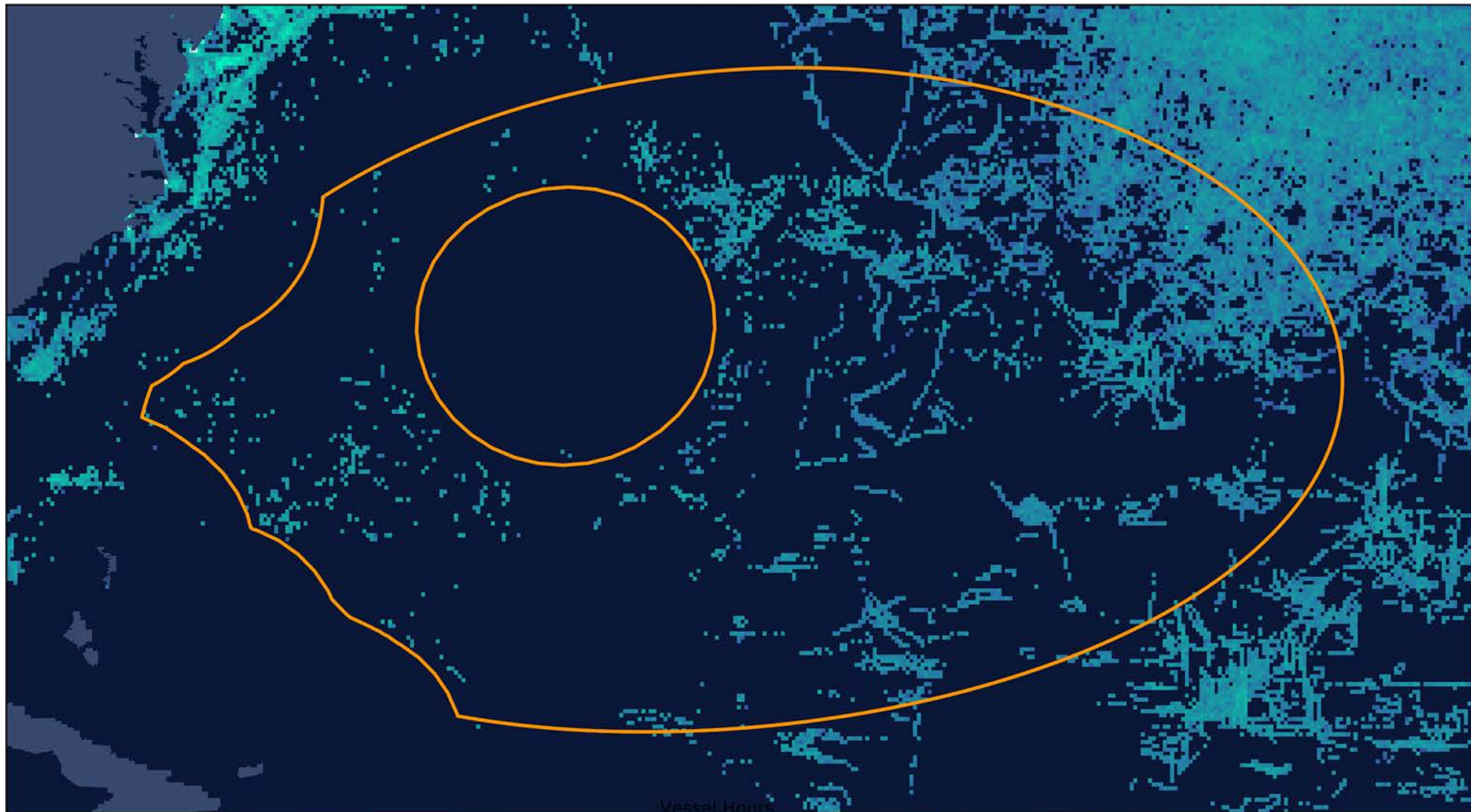
Basemap attribution,

Explore
Case studies

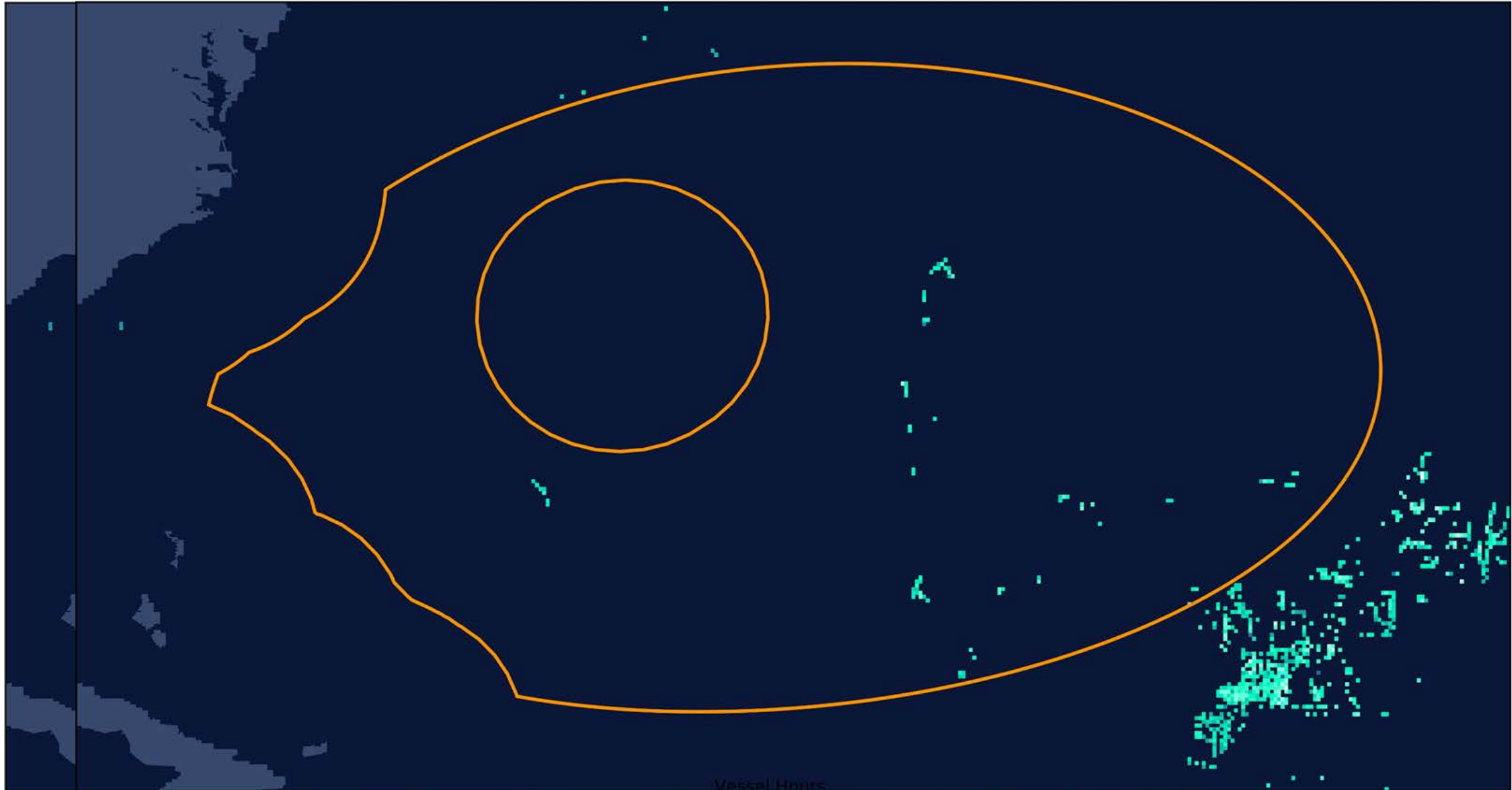


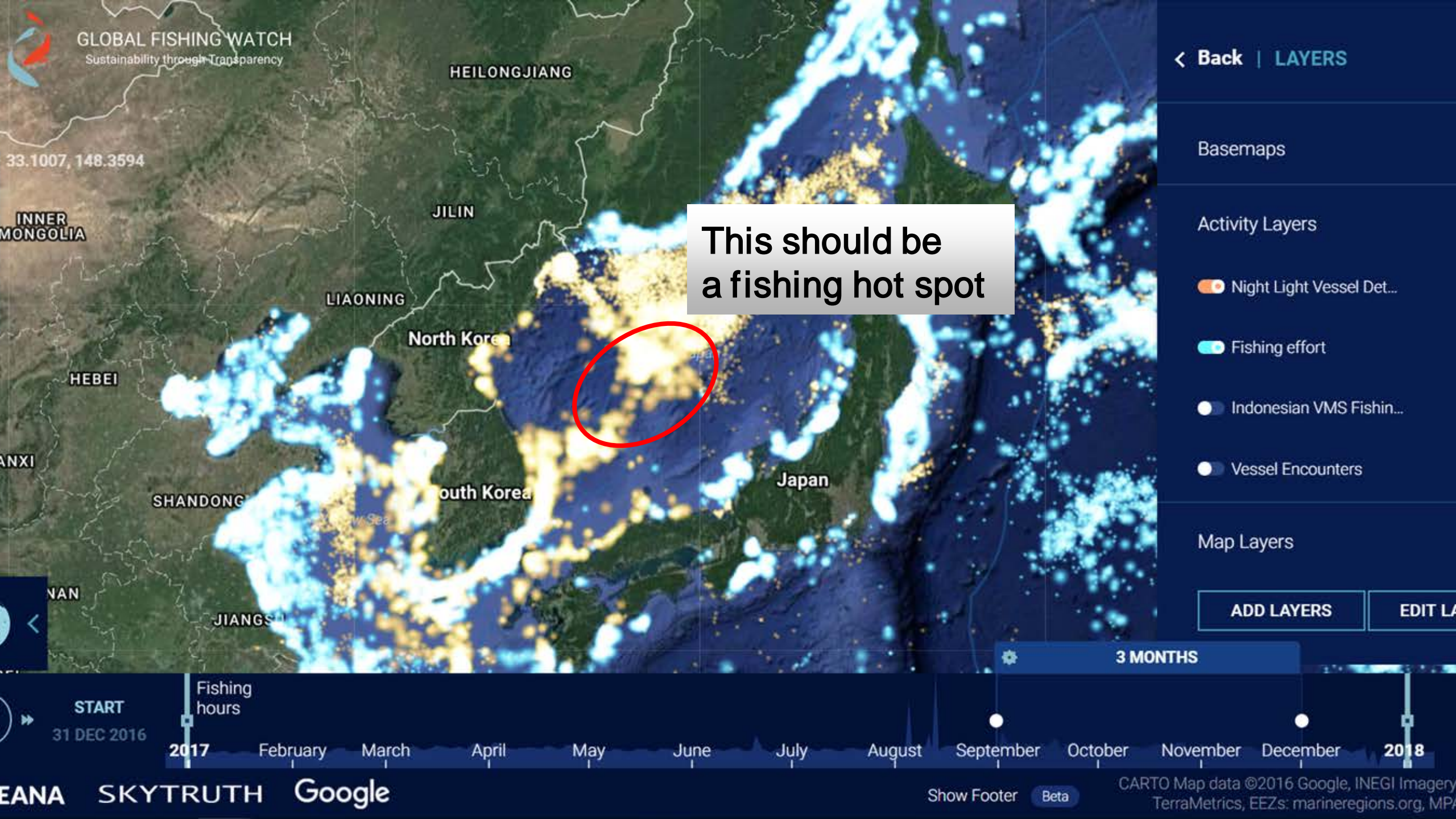
 Show list

density-type-drifting_longlines, 2018



densitytype=2018, 2018





This should be
a fishing hot spot

Basemaps

Activity Layers

Night Light Vessel Det...

Fishing effort

Indonesian VMS Fishin...

Vessel Encounters

Map Layers

ADD LAYERS

EDIT LA

3 MONTHS





28.8687, -52.6704



6 MONTHS



START
01 JAN 2018

Fishing
hours

Feb 2018

March

April

May

June

July

August

September

October

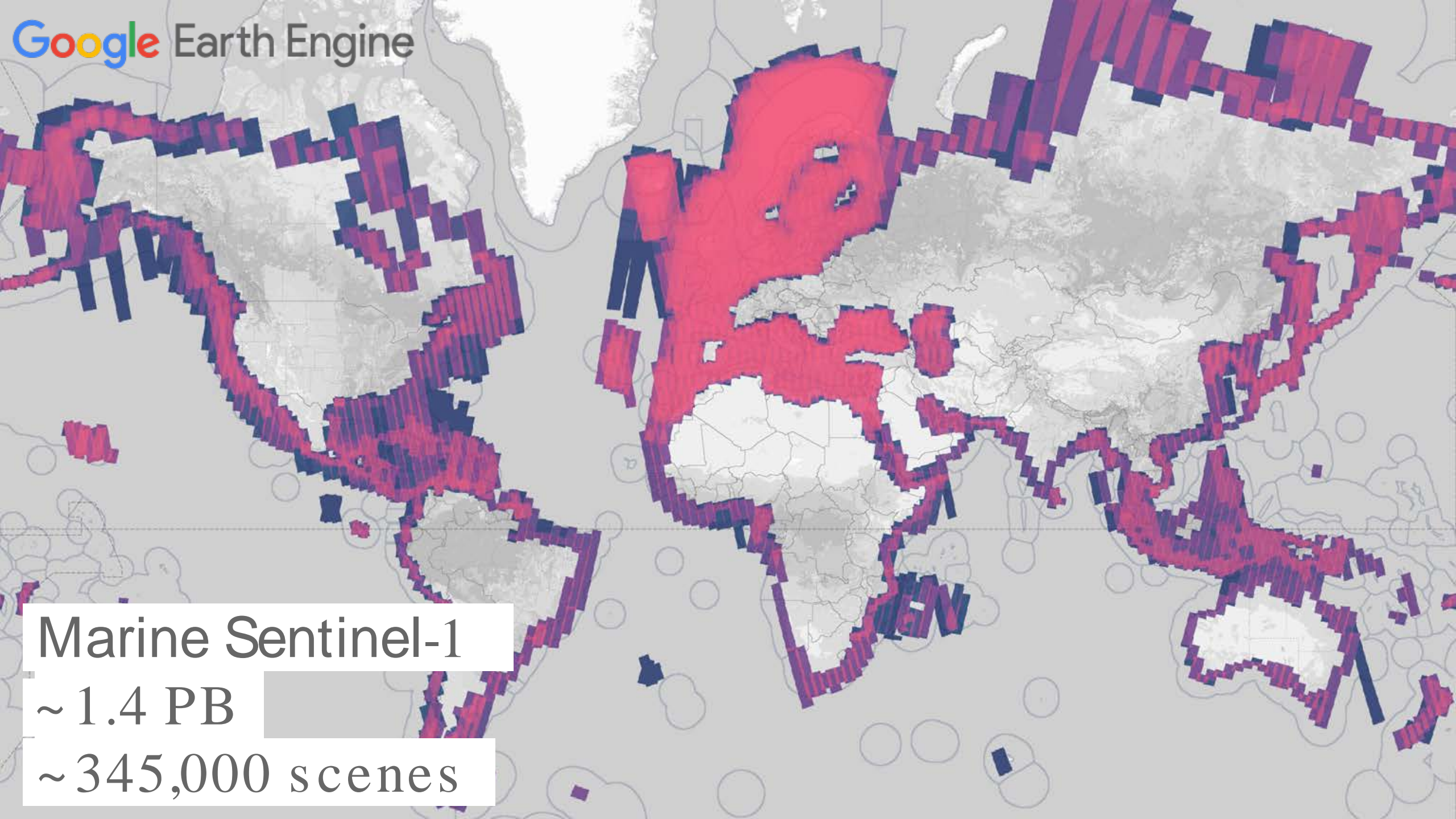
November

December

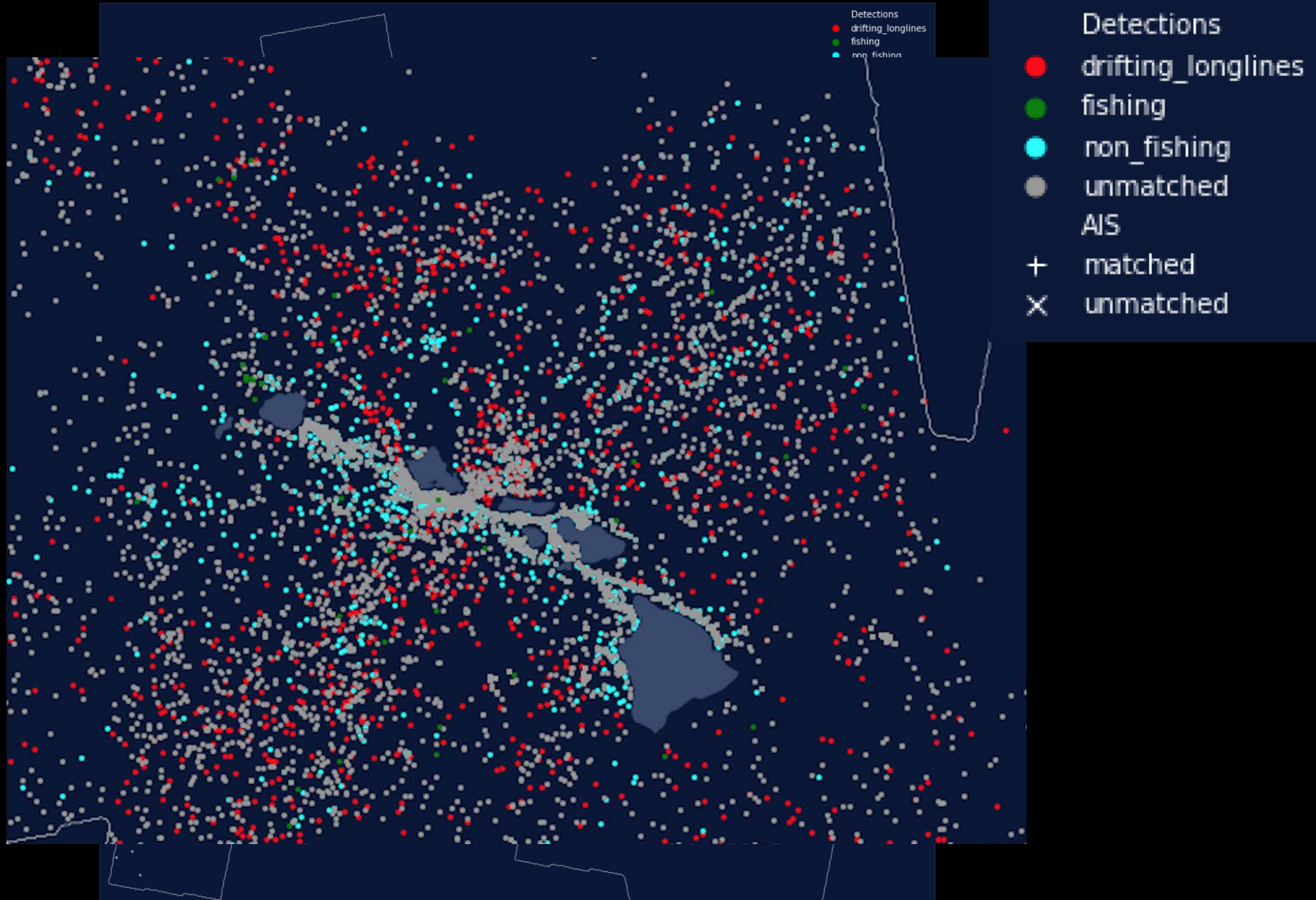
2019

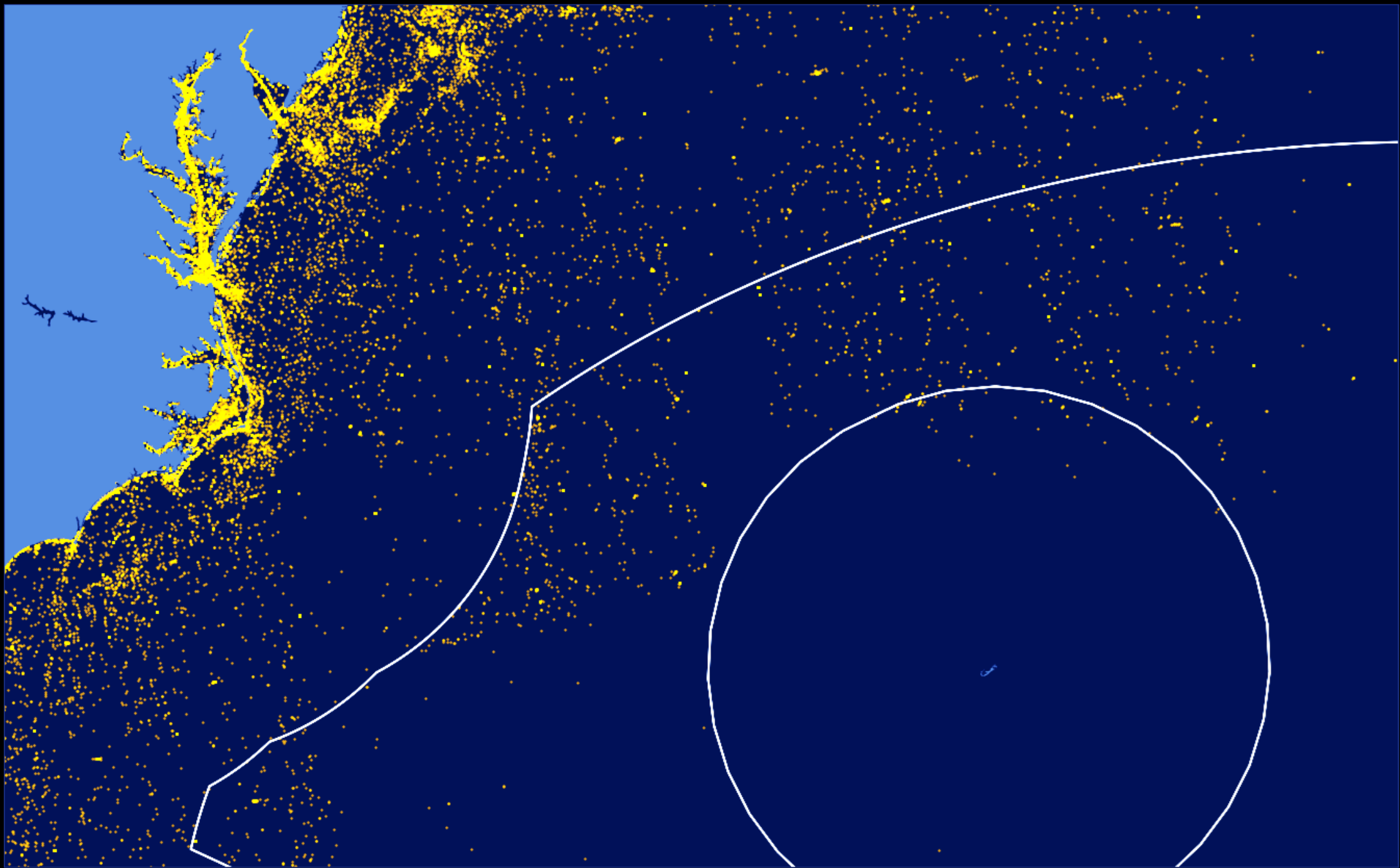
February

END
24 FEB 2019



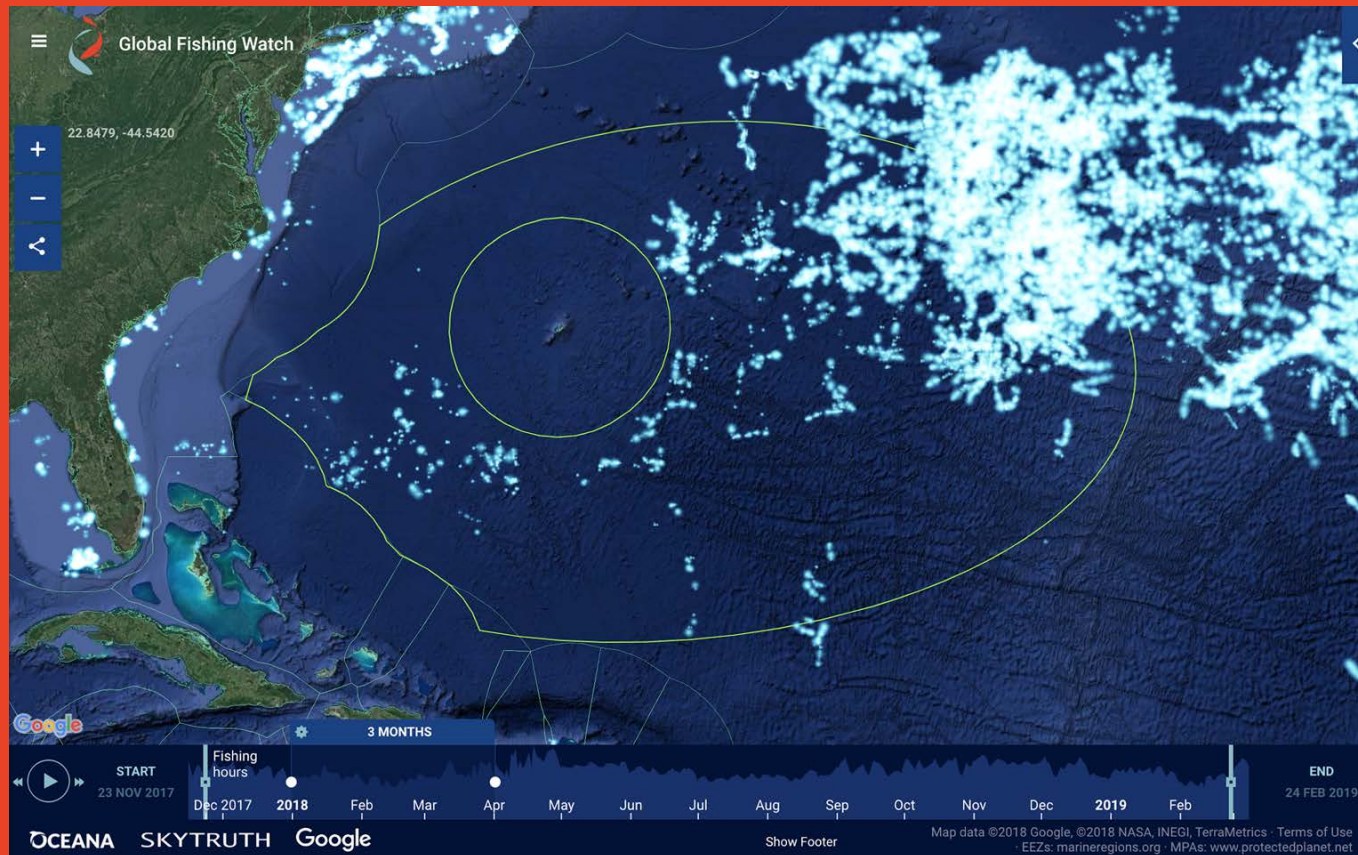
Marine Sentinel-1
~ 1.4 PB
~ 345,000 scenes





Global Fishing Watch

Sargasso Sea Commission
13 March 2019



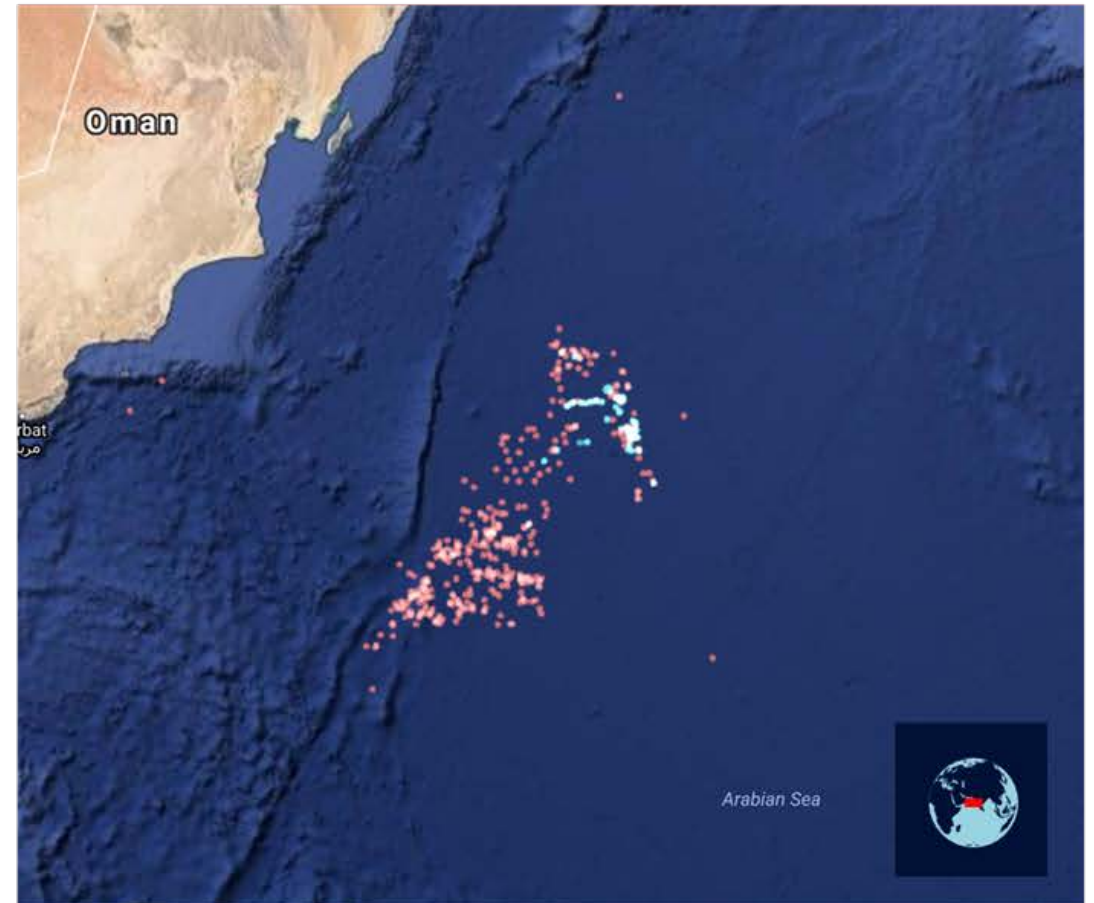
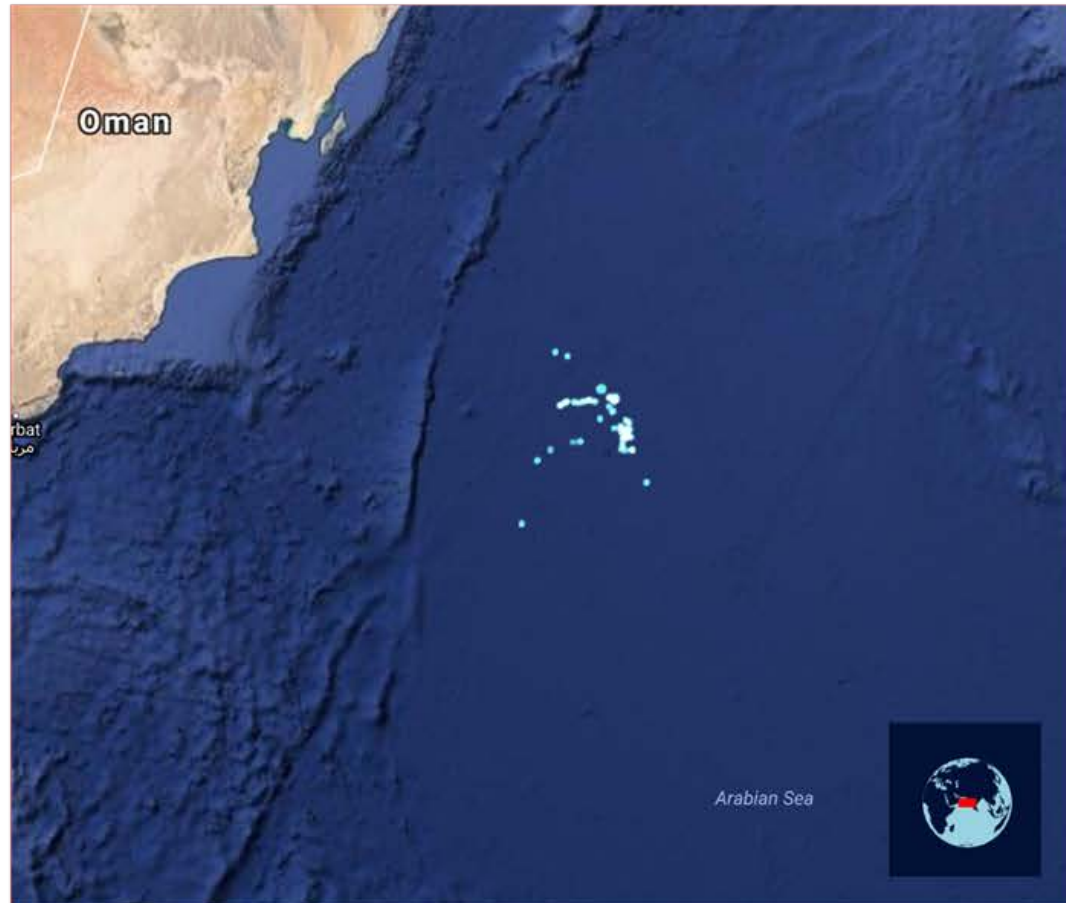
Paul Woods
Co-Founder and CTO

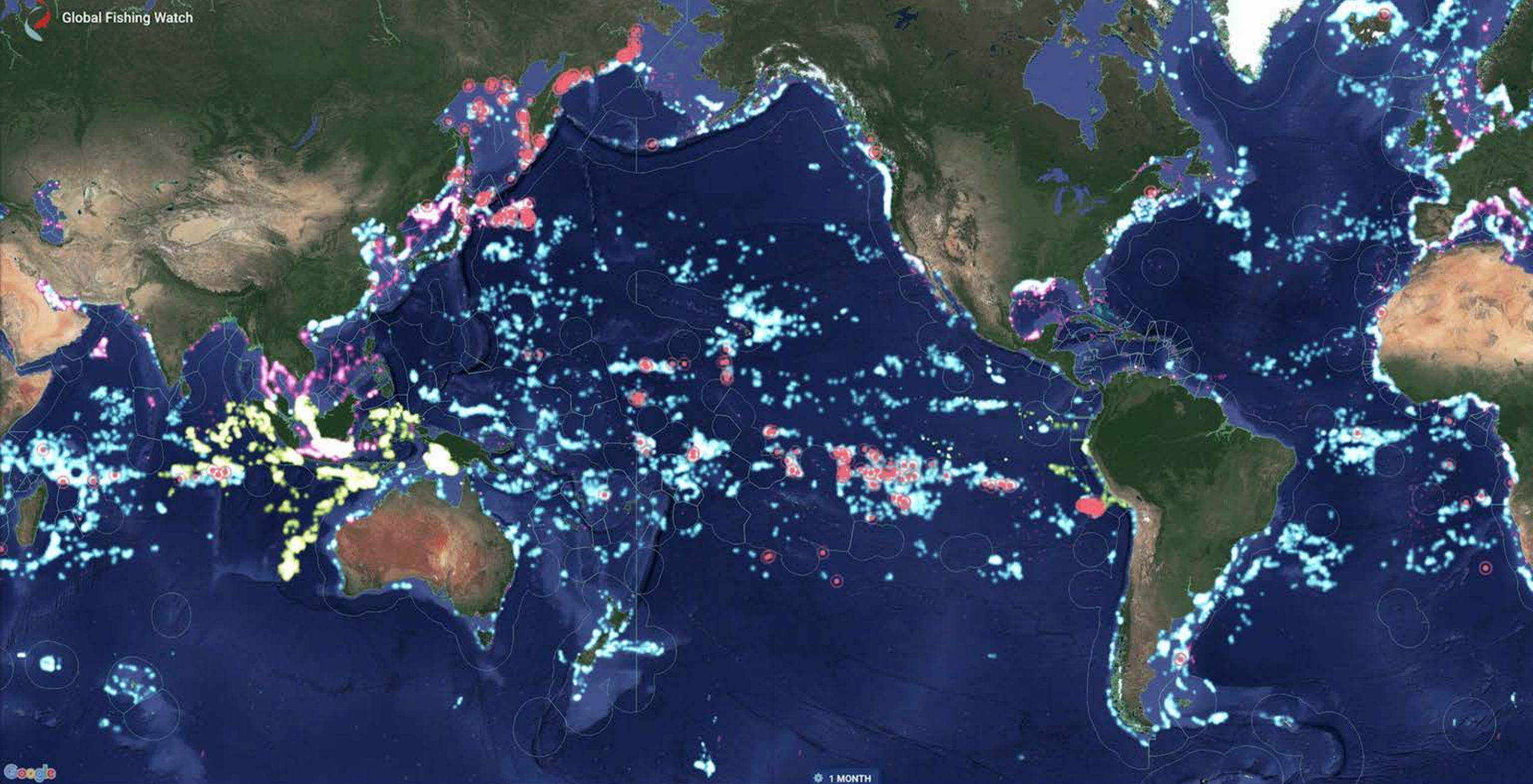


Global Fishing Watch

Shining a light on hidden fishing activity

Global Fishing Watch's new VIIRS layer uses satellite imagery from the U.S. National Oceanic and Atmospheric Administration to reveal the location and activity of brightly lit vessels operating at night. Globally, VIIRS satellites detect 10,000-20,000 boats each night that don't show up on other monitoring systems. **Left panel:** a fleet of fishing vessels in the Arabian sea, using data from AIS (blue dots), an automated ship tracking system. **Right panel:** with the addition of VIIRS data (red dots), the actual size of the fleet is revealed to be many times larger.





Google

START 30 DEC 2016

Fishing hours

2017 April July October

1 MONTH

2018 April July

END 01 JUL 2018

OCEANA SKYTRUTH Google

Show Footer

Map data ©2018 Google, ©2018 NASA, INEGI, TerraMetrics, Terra.com

YING RONG NO.638

[EXPLORE ON MAP](#)

Type

Fishing Vessel

Flag

Taiwan, Province of China

MMSI

416176700

Callsign

BI2578

IMO

9241061

UVI

XXXXXXXXXX

Gear Type

Longline Tuna

Length

19.4

Width

6.7

Gross Tonnage

68



Latest Position

 50.2252° / -11.55869°

 22.4knots






 277°



Latest Port Visit

 Terminal Portuario del Callao, Peru

Recent Activity

 FISHING (10 EVENTS) 50.2252° / -11.55869°	DATE OCT 29 11:25PM	DURATION 2 hours	
 ENCOUNTER Reefer Name	DATE OCT 29 07:05PM	DURATION 3 hours	
 PORT VISIT Terminal Portuario del Callao, Peru	DATE OCT 29 05:54PM	DURATION 5 hours	
 FISHING (33 EVENTS) 50.2252° / -11.55869°	DATE OCT 29 02:03AM	DURATION 5 hours	
 FISHING (2 EVENTS) 50.2252° / -11.55869°	DATE OCT 29 01:03AM	DURATION 30 minutes	
 PORT VISIT Terminal Portuario del Callao, Peru	DATE OCT 28 11:25PM	DURATION 5 hours	
 FISHING (40 EVENTS) 50.2252° / -11.55869°	DATE OCT 28 09:03AM	DURATION 10 hours	

Goal - Public tracking of Fishing Vessels:

Public Sharing of VMS: engage with governments and receive public commitments towards ocean transparency, ideally showcased by the government going public with their VMS through GFW.

OR

Mandating AIS: encourage governments to mandate AIS systems on commercial vessels.

- Unreported fishing can be addressed by mandating data gathering and creating consistent, user-friendly formats for it on boats and on the docks
- Once these measures are taken to improve near shore fisheries, technology can play a much more effective role in monitoring and enforcement



Global Fishing Watch

We also would like to see:

Publication of an Authorized Vessel List: encourage governments to published Authorized Vessel List in a timely manner

Tracking of Small Scale Fisheries: develop a system for tracking of small scale/artisanal fleets



Global Fishing Watch

9.8823, -119.0698

< Back | VESSELS 5 PINNED

Search vessel

- FU YUAN YU 7866
- FU YUAN YU 7861
- FU YUAN YU LENG 9...
- FU YUAN YU 7865
- FU YUAN YU 7862

RECENT VESSELS



START
15 MAY 2017

Fishing hours

Jun 2017

July

August

September

October

November

December

END
31 DEC 2017

1 MONTH