

## Understanding vessel encounters

### What is a vessel encounter?

An encounter in our map is an event where a refrigerated cargo vessel meets up with a fishing vessel at sea. Our algorithm identifies an encounter when two vessels are in close proximity at a slow speed for several hours. We cannot know

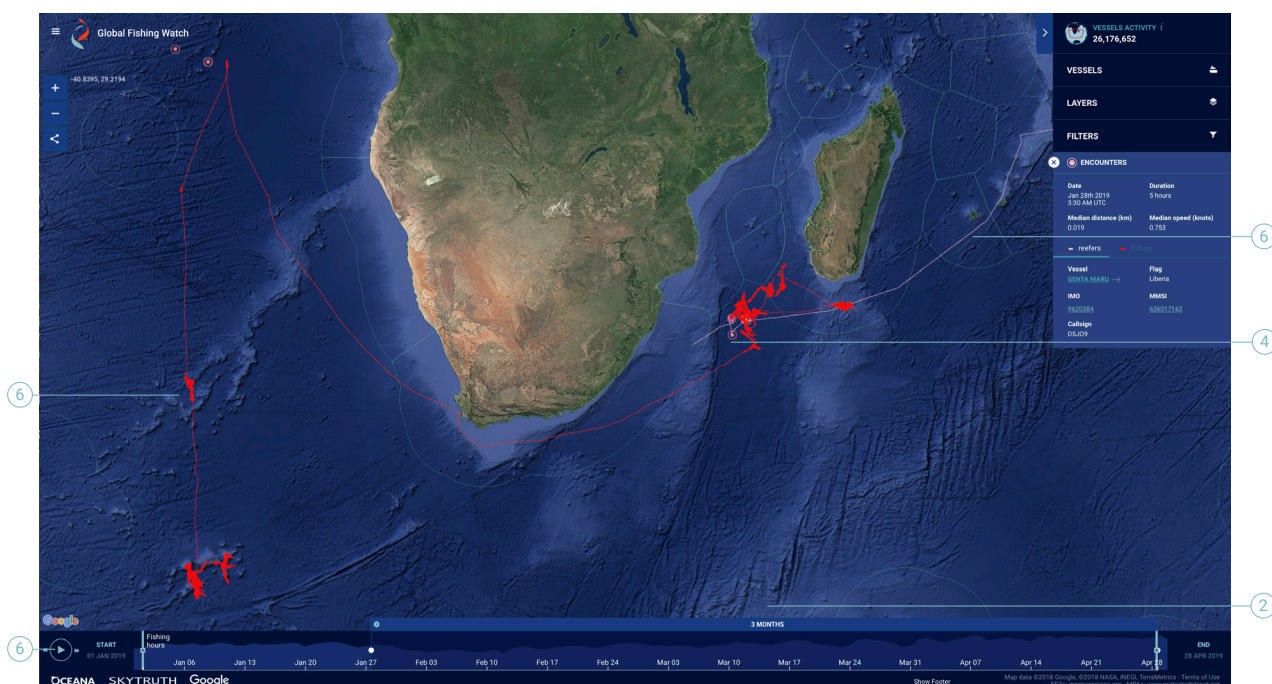
what, exactly, these vessels did during this encounter on the tracking information alone, hence we denote as an encounter rather than a transshipment or bunkering which would have involved the exchange of fish, fuel, supplies or crew.

### How can I use these data?

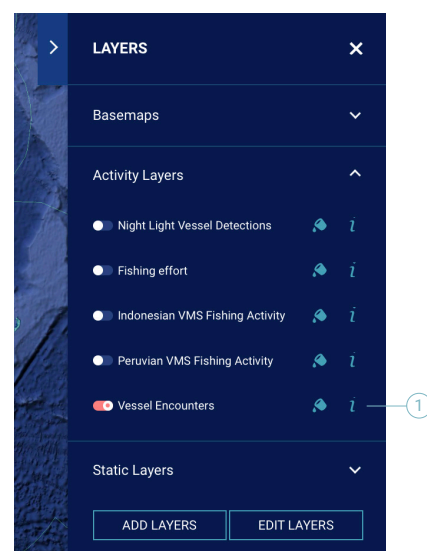
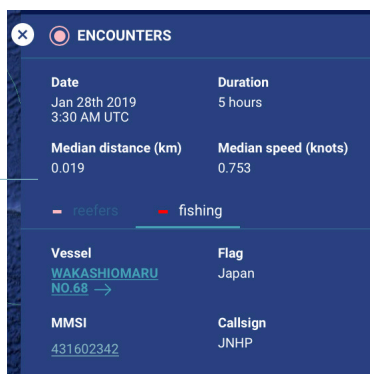
Specifically, the vessel encounters layer is identified from AIS data as locations where two vessels were continuously within 500 meters for at least 2 hours, while at least 10 km from a coastal anchorage.

When you click on an encounter, it will display the tracks of both the fishing vessel and the refrigerated cargo, or reefer, vessel involved.

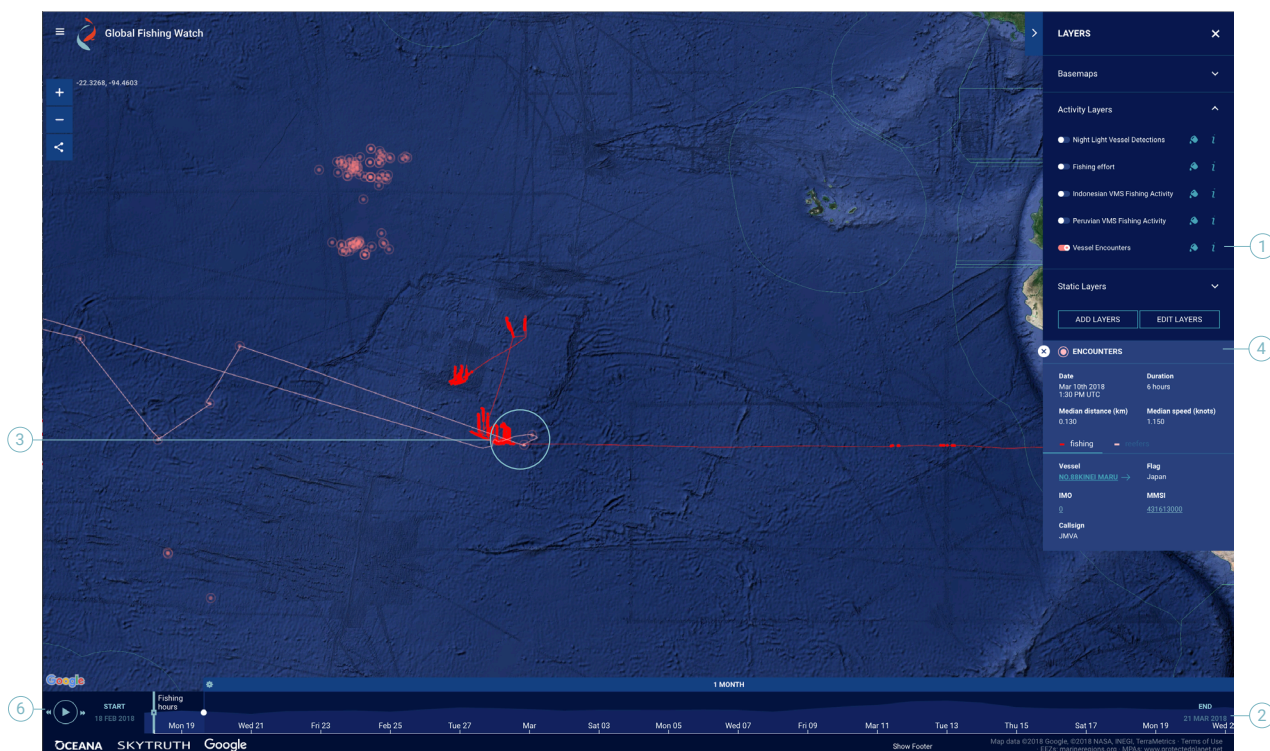
### Example: Observing vessel encounters



1. In 'Activity Layers,' activate 'Vessel Encounters' and turn off all other activity layers.
2. Select a start date of January 1, 2019 and set the time period to 3 months.
3. Zoom in on Madagascar.
4. Click on an encounter south of Madagascar.
5. Clicking on the encounter will open identity information about the fishing vessel and refrigerated cargo vessel, or 'reefer', in the toolbox, and information about the encounter that occurred.
6. Clicking on the encounter will also reveal the tracks of the fishing vessel and the reefer involved. Press play to track these vessels over time.



## Example: Tuna fishing encounter



1. In 'Activity Layers,' activate 'Vessel Encounters' and turn off all other activity layers.
2. Set a start date of February 18, 2018 and an end date of March 21, 2018.
3. Zoom in on Peru's coast. You'll see three encounters closest to Peru's coastline. You can explore each by clicking on them to see the vessels involved and their tracks.
4. Look for the encounter between the tuna fishing vessel Kinei Maru No.88 and the reefer Tuna Princess.
5. Reduce the time period on the time slider to 5 days.
6. Use the rewind icon to slow the pace that the fishing activity will be played at, then hit play.
7. Note that the fishing vessel later has a 6-hour encounter with the reefer before going into port at Callao, Peru.
8. Identify the number of encounters that the reefer Tuna Princess conducts between February 1 and May 1, 2018. Also, identify the vessels that have entered port at Callao after an encounter.

