

Apr 18, 2023

# Recording Whale Watching Boat and Humpback Whale Collisions

DOI

dx.doi.org/10.17504/protocols.io.e6nvwjrpwlmk/v1



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**Protocol Citation:** Laura Barragan 2023. Recording Whale Watching Boat and Humpback Whale Collisions. **protocols.io** <a href="https://dx.doi.org/10.17504/protocols.io.e6nvwjrpwlmk/v1">https://dx.doi.org/10.17504/protocols.io.e6nvwjrpwlmk/v1</a>

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Protocol status: Working

We use this protocol and it's working

Created: April 18, 2023

Last Modified: April 18, 2023

Protocol Integer ID: 80662

Keywords: recording whale watching boat, video footage of whale, humpback whale collision, humpback whale collisions the purpose, watching boat tour, multiple whale, whale, year period at multiple whale, boat tour, footage, video footage, sites along the coast, watching tour, water vehicle, collision, video, coast, watching site, data, research protocol, research

#### Abstract

The purpose of this research protocol is to record collisions caused by whale watching boat tours. We make use of remotely operated water vehicles to collect video footage of whale watching tours and analyze the footage simultaneously. This data will be taken over a five year period at multiple whale watching sites along the coast of Mo'orea, French Polynesia.

#### Image Attribution

Live Science: https://www.livescience.com/50498-curious-sperm-whale-rov-video.html

#### Guidelines

- Be sure you are 300 feet away from whale watching site, otherwise you would be violating federal rules
- Be sure to get proper training on operation of ROV, including deployment and retrieval

#### **Materials**

- Field notebook
- Laptop
- ROV
- Tether
- Ship
- Cameras
- Lights

## **Troubleshooting**

# Safety warnings



Operate ROV safely to avoid entanglements



#### Before start

- Verify all permits have been obtained
- Attempt to speak with whale watching agencies about project



## Remotely Operated Underwater Vehicle Set Up and Deployment

- 1 Drive ship to 300 feet distance from whale watching tour site
- 2 Equip the ROV with four video cameras and lights
- 3 Connect the ROV to ship with a tether
- 4 Deploy ROV to site carefully, make sure to stop at 10 feet deep
- 5 Follow general direction of where whale watching tours go from 5am to 7pm
- 5.1 5am to 7pm as this is within the business hours of whale watching tour agencies

#### **Observation Methods**

- 6 For 14 hours that ROV is underwater, monitor video footage carefully
- 7 Make sure that are multiple observers on shift observing footage from different cameras/angles
- 8 If you observe a whale watching tour, record it on field notebook
- 8.1 Include the following data: Date, Time, Agency
- 9 If you observe a collision, record it on field notebook
- 9.1 Include the following data: Date, Time, Agency, Approximate Speed, Injuries (if visible), Deaths (visible through whale fall)



# **ROV Retrieval and Closing Steps**

- 10 Retrieve tether and ROV from under water carefully
- 11 Be sure to transfer data from field notebook onto Google Spreadsheet

### **Protocol references**

NOAA Ocean Exploration: <a href="https://oceanexplorer.noaa.gov/technology/subs/rovs/rovs.html">https://oceanexplorer.noaa.gov/technology/subs/rovs/rovs.html</a>