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**Protected
Resources
Division**

Large Whale Entanglement Response California

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Need for Entanglement Response Program

- Significant problem nationally and globally – all marine mammal species can be affected
- Public safety and desire to intervene
- Component of NOAA Fisheries' larger conservation and recovery strategy
 - Data source (similar to stranding data) to focus and measure effectiveness of management efforts through identification of types of gear involved
 - Identify types of injuries and gear to improve response capabilities
- With critically endangered species, successful release of one individual can have a significant effect on the population
 - Over 8% of North Atlantic right whale population alive today due to entanglement response operations, including at least 11 new calves
- Animal welfare issue since entangled animals can drown, starve, die from infection immediately or over long periods of time

CCS (NOAA Permit #932-1905)

Evolution and Goals of Program

- Program *ad hoc* in mid-1980's then evolved over time to include strategic partnerships with on-water professionals
 - Atlantic Coast: Formally established in mid-1990's along with dedicated 24hr funded effort
 - Pacific Coast: To date, continued *ad hoc* efforts with sporadic funding

GOALS:

- Document/gather information from events in order to assess impact and reduce serious injury and mortality of entangled whales (knowledge towards prevention)
- Increase public safety and awareness of entanglement issue
- Ensure safety of responders through standardized trainings/protocols and authority levels
 - Maintaining safe and effective response capabilities through partnerships in the face of declining government and non-government resources
- Ultimately, maintain and monitor program to ensure prevention measures are working



NOAA AK PRD/MMHSRP (NOAA Permit #932-1905)



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Program Authorization

- Entanglement Response Program is authorized via ESA/MMPA permit issued to the Marine Mammal Health and Stranding Response Program (same permit for stranding response program)
- Five Levels of Authorization directly linked to experience and training:
 - Level 1-2: Awareness, reporting, assessment, documentation and assisting advanced network responders with cases
 - Level 3: Deployment of satellite tags, assisting primary entanglement responders directly with cases
 - Level 4 -5: Lead a disentanglement event (level is species dependent)



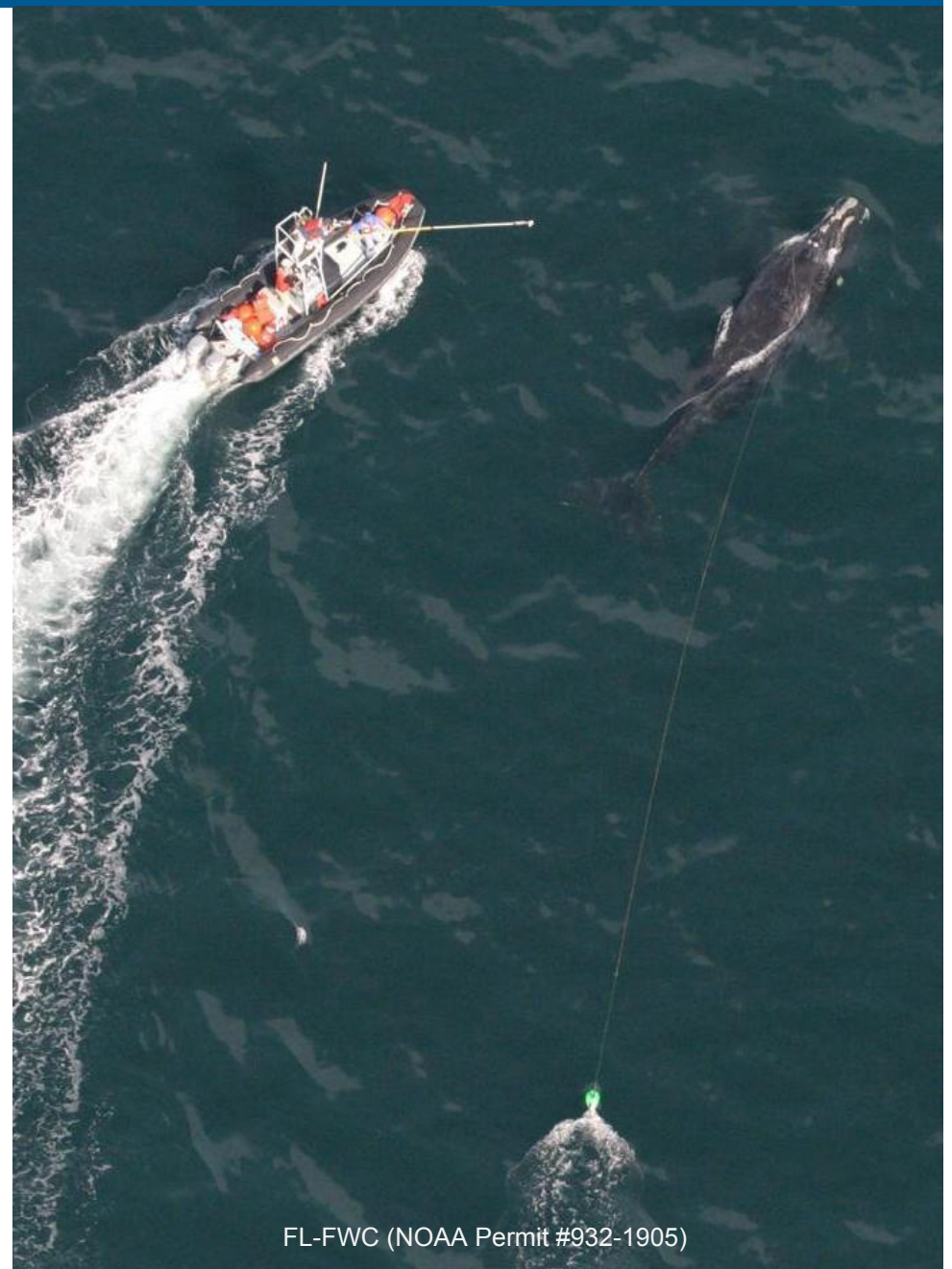
Program Protocols

Typical Response Breakdown:

- Awareness and Reporting
- A Rapid 'First Response'
- Verification and Assessment
- Disentangle, Tag, or 'Stand Down'
- Document and Follow-up
- Debrief

Risks Identification and Mitigation:

- Human and animal safety
- Small boat and aircraft operations
- Established operational protocols
- Conducted Job Hazard Analysis
- Implemented ICS structure



FL-FWC (NOAA Permit #932-1905)

Large Whale Disentanglement Network

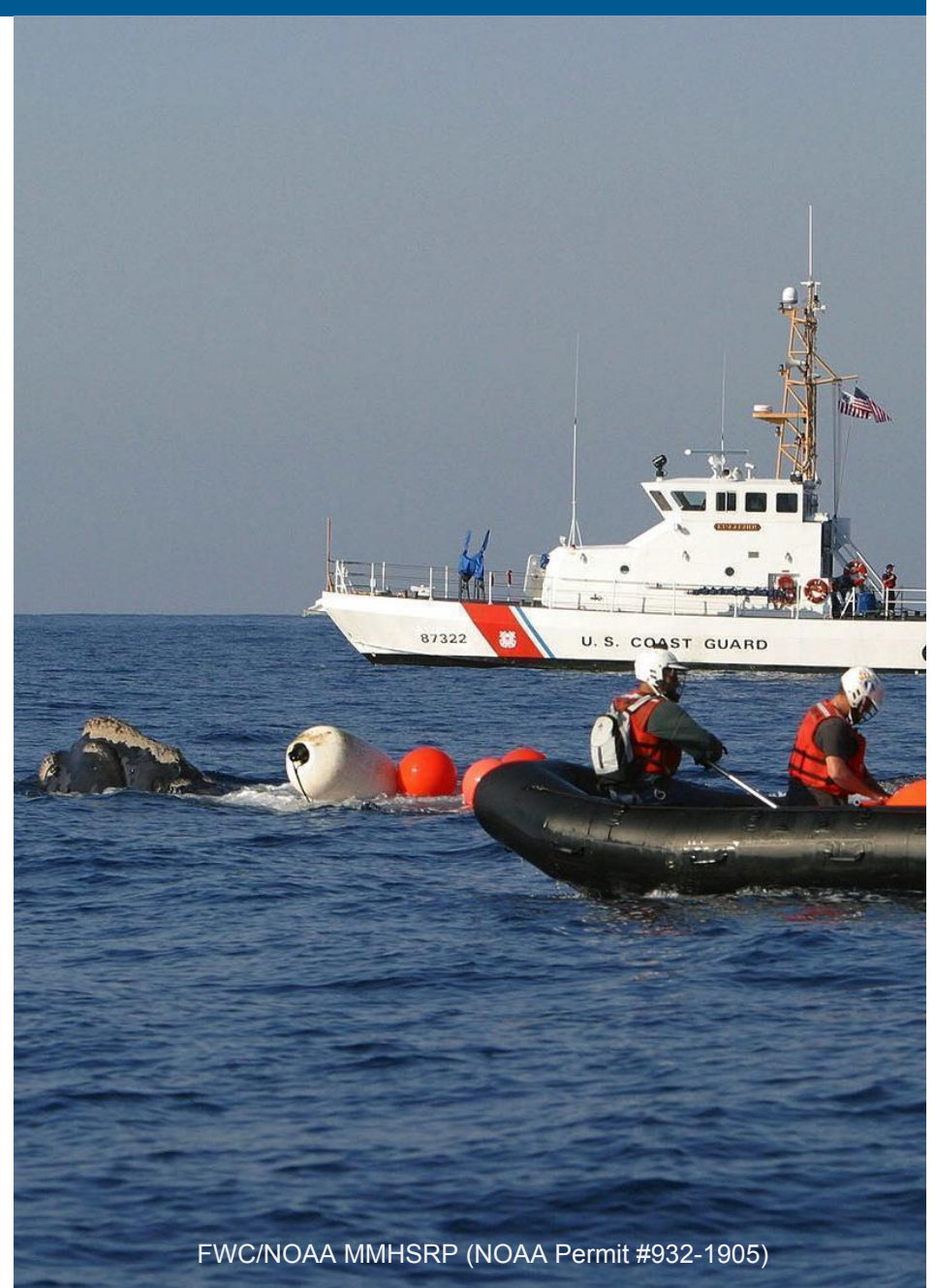
- Teams are highly trained and use specialized equipment to respond to entangled whales
 - Response tools includes: specially designed knives, hooks, cameras, poles, large buoys, safety equipment (helmets, gloves, pfd), telemetry buoy if available, and communication devices
 - 9 gear caches along the west coast; 5 in southern California



Entanglement Responders

Partners:

- Other NOAA Line Offices, i.e. National Marine Sanctuary Program, NOAA Corps, OLE, Science Centers
- State Conservation and Law Enforcement Agencies
- Stranding Network Members
- Academia
- Non-Profit Organizations
- Whale Watch Companies
- Fishermen
- Private Vessels
- U.S. Coast Guard
- Canada Department of Fisheries and Oceans and Coast Guard



FWC/NOAA MMHSRP (NOAA Permit #932-1905)



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Methods/Protocols

- NEVER intentionally enter the water – All rescues conducted from small, maneuverable vessels
- Techniques largely based on historic whaling methods and are inherently dangerous
- Some species more difficult than others, some individuals more difficult than others
- Try to work in ‘safe zones’ with long reaching tools
- Addition of drag to slow animal down and tire out
- Cut off all potentially life threatening gear
- Investigate origins of gear and provide that data to fisheries managers



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Disentanglement: What is a Success?

- All potentially lethal gear off the animal
- Minimal injuries to the whale and none to rescuers
- Documentation of the whale (species, individual identification and status)
- Documentation of the entanglement (how was the gear on the whale?)
- Retrieval of gear for identification and management focus



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Future Priorities

Better documentation of entanglements and the gear types involved

Better understanding of gear sets and how the configuration may change over time with changing currents/winds/ tides etc.

More analysis and feedback from fishermen re: entanglements – look at case studies and provide feedback/ insight to response network

Post event interview questions...determine what information most important/ relevant to the issue so can make sure to ask correct questions.

Increased Outreach and Education to get more eyes on the water

Entanglement response network growth on WCR- trainings/ supply cache/ more response teams in more areas to decrease response time

Get interested fishermen and ocean users involved with response network and provide trainings

What can you do...

- Do not try and free the animal yourself! Disentangling a large whale is a dangerous. Risk of injury or death of the rescuer and the whale.
- Entangled whales are not usually in immediate danger of drowning. Take your time and assess the situation and notify the network (hotline).
- If you are on the water, with the whale,
STAND BY!!
- Assessment is the foundation for entanglement response effort

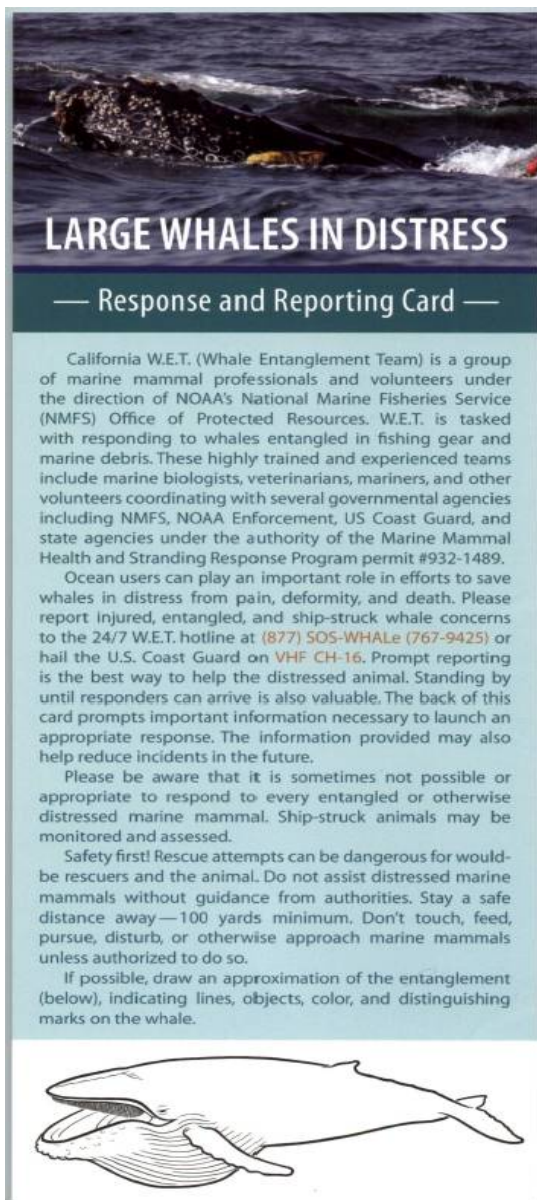
What can you do? Be Careful

Large Whale Entanglement Response is Dangerous



MMHSRP Permit # 932-1905-01

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California W.E.T. (Whale Entanglement Team) is a group of marine mammal professionals and volunteers under the direction of NOAA's National Marine Fisheries Service (NMFS) Office of Protected Resources. W.E.T. is tasked with responding to whales entangled in fishing gear and marine debris. These highly trained and experienced teams include marine biologists, veterinarians, mariners, and other volunteers coordinating with several governmental agencies including NMFS, NOAA Enforcement, US Coast Guard, and state agencies under the authority of the Marine Mammal Health and Stranding Response Program permit #932-1489.

Ocean users can play an important role in efforts to save whales in distress from pain, deformity, and death. Please report injured, entangled, and ship-struck whale concerns to the 24/7 W.E.T. hotline at (877) SOS-WHALE (767-9425) or hail the U.S. Coast Guard on VHF CH-16. Prompt reporting is the best way to help the distressed animal. Standing by until responders can arrive is also valuable. The back of this card prompts important information necessary to launch an appropriate response. The information provided may also help reduce incidents in the future.

Please be aware that it is sometimes not possible or appropriate to respond to every entangled or otherwise distressed marine mammal. Ship-struck animals may be monitored and assessed.

Safety first! Rescue attempts can be dangerous for would-be rescuers and the animal. Do not assist distressed marine mammals without guidance from authorities. Stay a safe distance away—100 yards minimum. Don't touch, feed, pursue, disturb, or otherwise approach marine mammals unless authorized to do so.

If possible, draw an approximation of the entanglement (below), indicating lines, objects, color, and distinguishing marks on the whale.

CA/OR/WA (877) SOS-WHALE (877)767-9425

- Phone number to call and report whales in distress (injured, entangled, stranded or ship-struck)
- Outreach: Reporting cards & Gear Guide
 - *Need photos and/or video & information on date, GPS location, species, nature of distress*

Entangled Whale Hotline: (877) SOS-WHALE (767-9425)

Marine Mammals in Distress Reporting Card

Report injured, entangled, stranded, and ship-struck whale concerns as soon as possible. Reports will be relayed to responders. Authorized personnel will guide you as to what to do next. Prompt reporting is the best way to help distressed animals. The following information will aid responders in mounting an appropriate response.

DATE: _____ TIME OF LAST SIGHTING: _____

YOUR NAME: _____

VESSEL NAME/CALL SIGN: _____

PHONE NUMBER (Cell): _____

GENERAL LOCATION (Landmarks): _____

SPECIFIC LOCATION: _____ °N _____ °W

SPECIES (If known; use a guide): _____

APPROXIMATE SIZE/AGE CLASS: _____

NATURE OF THE DISTRESS (Describe what you see): _____

GENERAL CONDITION OF THE WHALE: _____

WEATHER/SEAS (Wind, swell, visibility): _____

IS THE ANIMAL MOVING? Y / N speed _____ heading _____

CAN YOU STAND BY? Y / N HOW LONG? _____ PHOTOS? Y / N VIDEO? Y / N

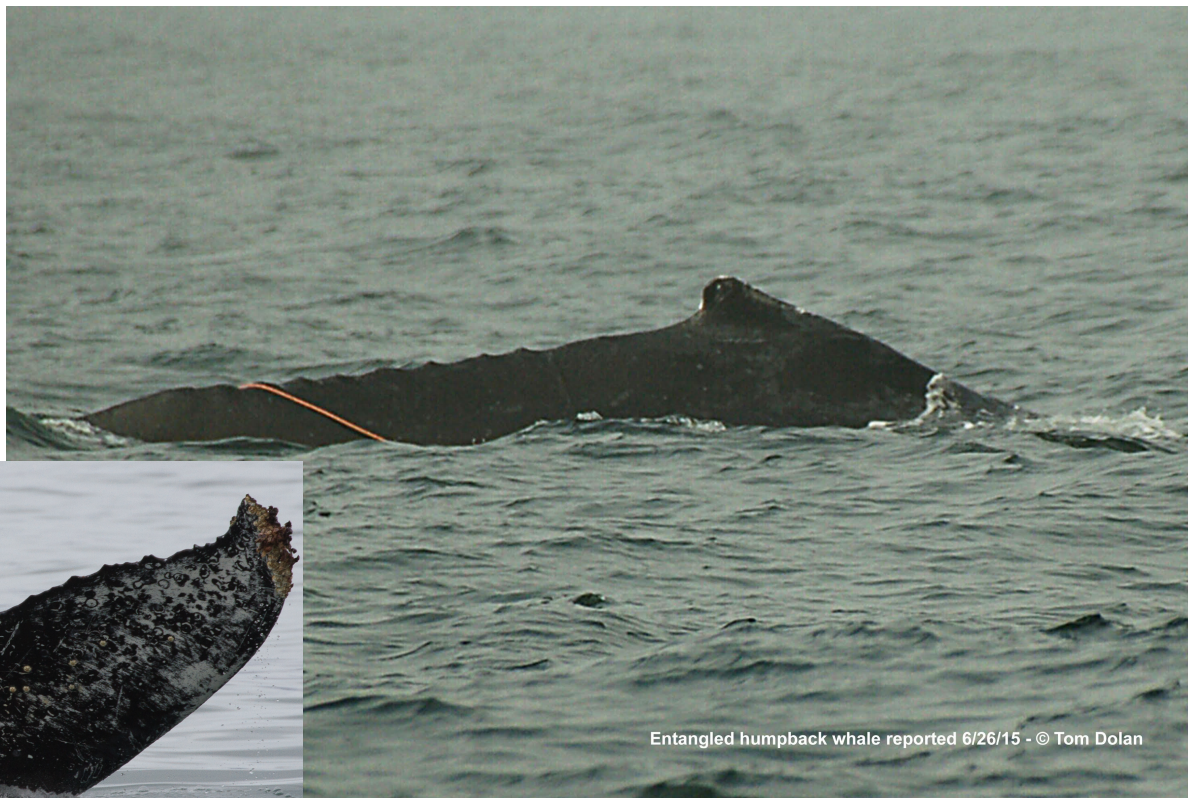
Report incidents of marine mammal harassment to NOAA's Office of Law Enforcement at (800) 853-1964. In Northern California, report live stranded marine mammals (on the beach) to The Marine Mammal Center at (415) 289-SEAL (7325). Report injured/stranded sea turtles to the Moss Landing Marine Lab Turtle Research Program at (831) 771-4422. Report dead marine mammals to California Academy of Sciences at (415) 379-5381. There are ten other organizations authorized to respond to stranded marine mammals in California. The W.E.T. Hotline operator will be able to route the report to the appropriate responder(s).



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What can you do...

- Document
 - Take pictures of whale dorsal fin and tail flukes



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What can you do...

- Document

- Take photos of the area(s) of entanglement: where / how entangled?



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What can you do...

- Document
 - Take photos of gear I.D info- wide and close up



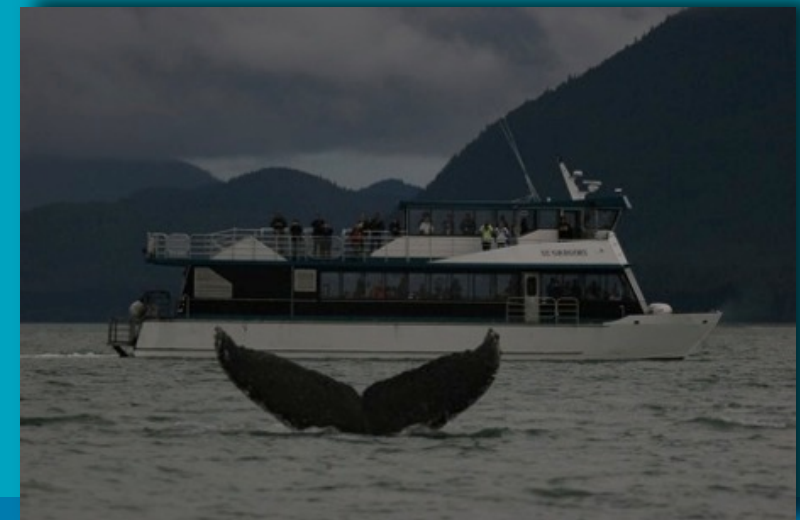
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Tips on standing by



- Time sounding dives to pace animal.
- Don't rely on entanglement, like a buoy or a line over back to identify the animal. These may change.
- If the whale does not surface within the time that you expect it, assume that you missed the surfacing.
- Stay 100 yards or more from the animal.
- Do not follow, but parallel animal.



Acknowledgments

NOAA-Fisheries (Office of Protected Resources)
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Gulf of Farallones National Marine Sanctuary
Hawaiian Islands Humpback Whale National Marine Sanctuary
Marine Life Studies
Monterey Bay National Marine Sanctuary
Monterey Bay Whale Watch
Moss Landing Marine Laboratories
Point Blue Conservation Society
Ocean Conservation Research
NOAA Fisheries Protected Resources Division
The Marine Mammal Center
Sea World – Rescue
WET Team
USCG

* Images and video obtained under authority of MMHSRP permit 932-1489

