



Apr 5th, 10:30 AM - 10:35 AM

Soundwatch: eighteen years of monitoring whale watch vessel activities in the Salish Sea

Shawn Larson

Whale Museum, United States, shawn@whalemuseum.org

Elizabeth Seely

Whale Museum, United States, elizabeth@whalemuseum.org

Richard Osborne

Whale Museum, United States, osborner@uw.edu

Kari Koski

Whale Museum, United States, kelp@rockisland.com

Follow this and additional works at: <https://cedar.wwu.edu/ssec>



Part of the [Fresh Water Studies Commons](#), [Marine Biology Commons](#), [Natural Resources and Conservation Commons](#), and the [Terrestrial and Aquatic Ecology Commons](#)

Larson, Shawn; Seely, Elizabeth; Osborne, Richard; and Koski, Kari, "Soundwatch: eighteen years of monitoring whale watch vessel activities in the Salish Sea" (2018). *Salish Sea Ecosystem Conference*. 145.

<https://cedar.wwu.edu/ssec/2018ssec/allsessions/145>

This Event is brought to you for free and open access by the Conferences and Events at Western CEDAR. It has been accepted for inclusion in Salish Sea Ecosystem Conference by an authorized administrator of Western CEDAR. For more information, please contact westerncedar@wwu.edu.

The Whale Museum's Soundwatch Boater Education Program

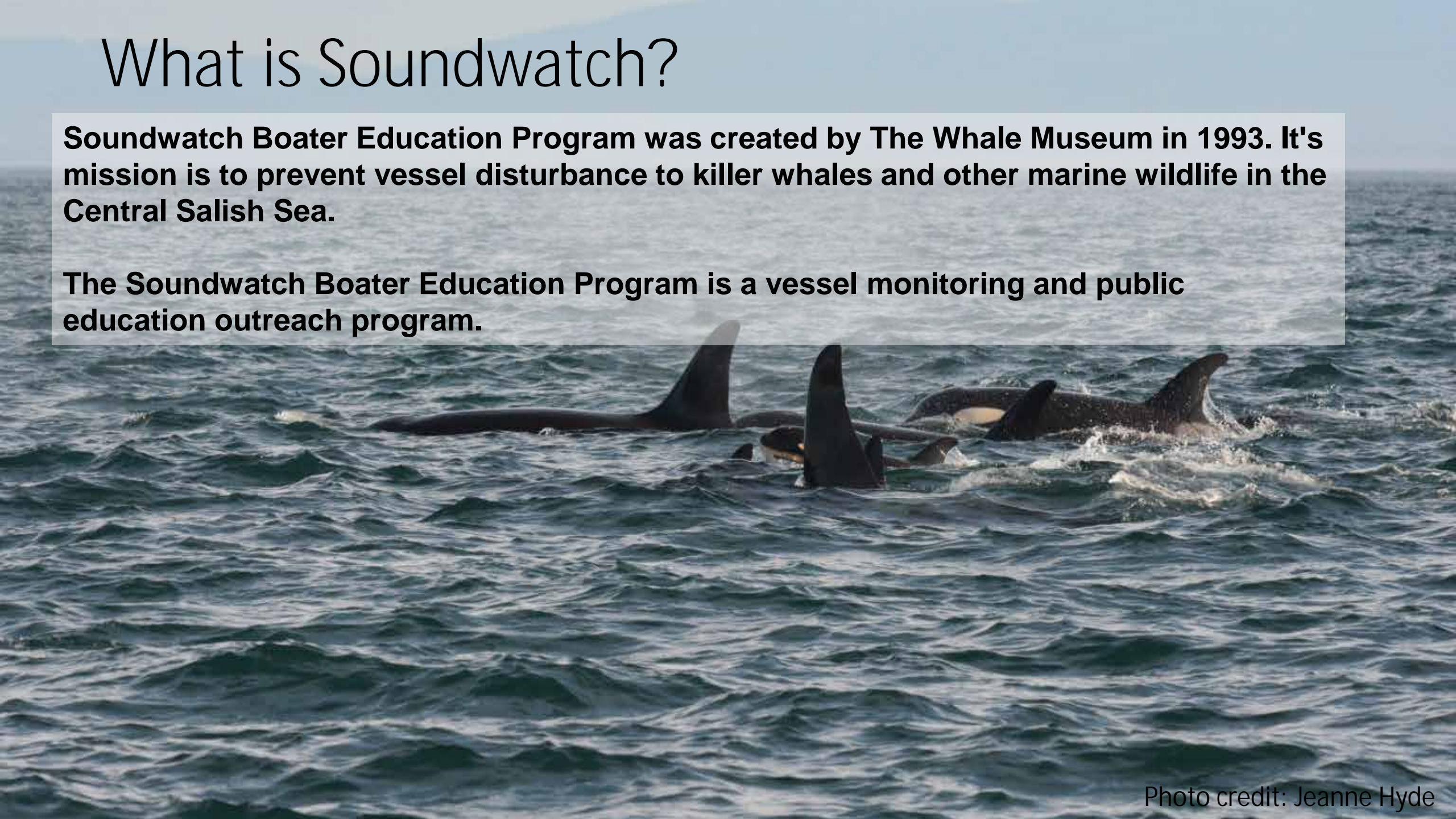


Photo credit: Jeanne Hyde

What is Soundwatch?

Soundwatch Boater Education Program was created by The Whale Museum in 1993. It's mission is to prevent vessel disturbance to killer whales and other marine wildlife in the Central Salish Sea.

The Soundwatch Boater Education Program is a vessel monitoring and public education outreach program.



Methods

Soundwatch educates and monitors vessels on the water gathering data on vessel numbers, vessel interactions with marine mammals from May-September, 10am-5pm, during the whale watch season in the Haro Strait region of the Salish Sea.

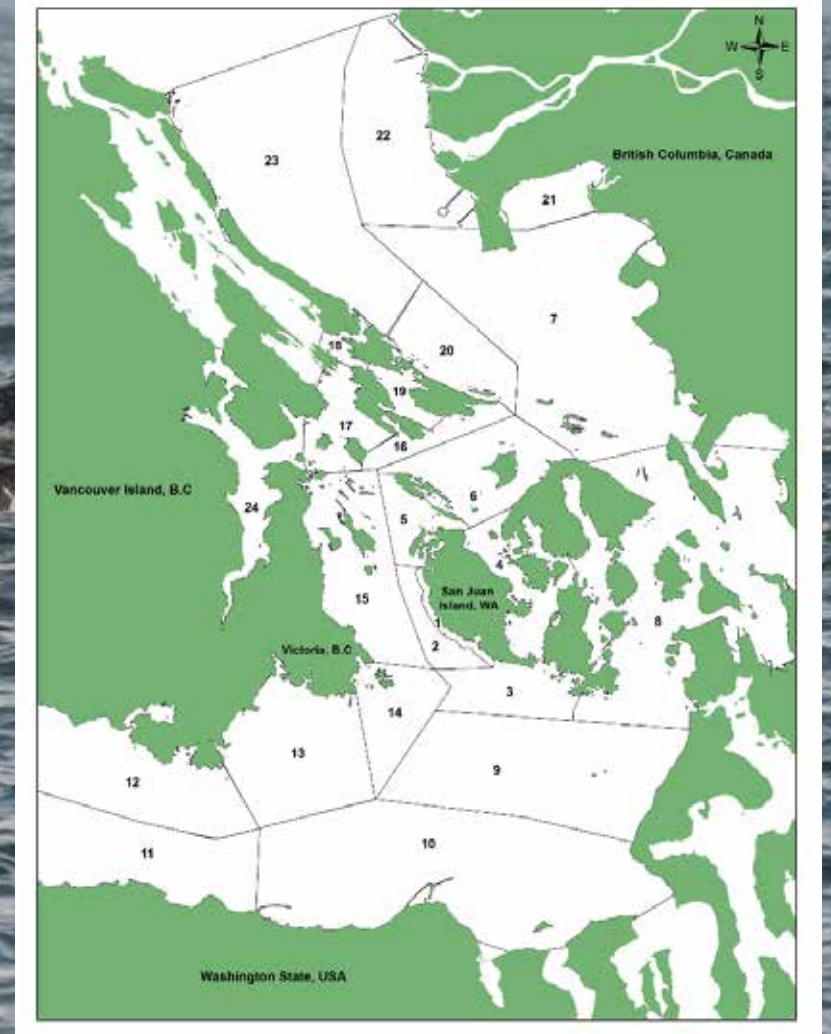


Photo credit: Jeanne Hyde

Education materials



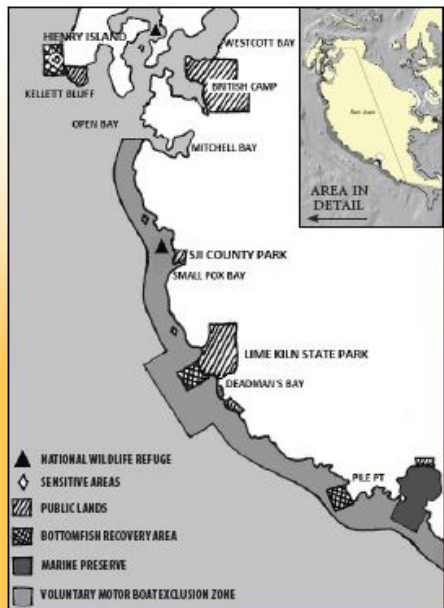
The Kayak Education & Leadership Program (K.E.L.P.), informs kayakers about marine wildlife regulations and guidelines with the aim to reduce human-powered vessel disturbance to all marine wildlife, including Southern Resident orcas, in the San Juan Islands.

Human-powered vessels have the unique challenge of limited maneuverability and a variety of safety concerns that require special consideration to remain in compliance with federal laws and to reduce the overall risks of disturbing marine wildlife.

GUIDELINES FOR KAYAKERS WHEN ORCAS ARE PRESENT

The Kayakers' Code of Conduct is a set of San Juan Island orca specific guidelines meant to be used along with regional Be Whale Wise Marine Wildlife guidelines and current Federal Vessel Laws.

- Do not launch from shore if you are unable to maintain 200 yards from the orcas.
- Paddle to shore or further offshore to maintain 200 yards to the side & 400 yards out of their path.
- If within 400 yards of orcas, kayakers should paddle toward shore, secure themselves (ideally in kelp beds), raft up, stop paddling, and wait until the orcas are 400 yards away.
- If offshore of orcas & within 400 yards, raft up for safety in boat traffic (preferably kayakers will always be inshore of boat traffic).
- Adjust your plan of action according to the whales' direction of travel and the state & federal laws.
- Maintain a 100 yard distance from marine mammals.



Marine Preserves

Regulation: Closed to all shellfish & bottomfish activities. (See WDFW Marine Rules 7 for exact locations.) **Salmon Fishing Closure:** No salmon fishing within 300 yards of Yellow & Low Islands to reduce rockfish mortality.

National Wildlife Refuges

Boaters are advised to stay 200 yards away to avoid disturbing marine mammals & birds.

Bottomfish Recovery Zone

Guideline: No bottomfishing within 1/4 mile of shore to protect & restore regional fishing.

Voluntary Motor Boat Exclusion Zone

Guideline: Remain 1/4 mile offshore when orcas are present.

Guideline: 1/2 mile no go zone at Lime Kiln Point State Park when orcas are present.

Sensitive Areas

Areas marked are for seal haul-outs & seabird nesting sites. Eelgrass beds provide critical habitat for juvenile fish. Please avoid disturbing sediments & vegetation.

Seeing killer whales and other marine wildlife in their natural environment can be a thrilling experience. In our excitement, we sometimes forget that our presence has an effect on wildlife and their habitat. Just like us, marine mammals need space to find food, choose mates, raise young, socialize and rest. When we get too close, approach too fast, or make too much noise, we may be disrupting these activities and causing the animals unnecessary stress. In some cases, we may be threatening their lives. Set an example for others, and help protect our spectacular marine resources.

Why do we need guidelines?
The diversity and complexity of marine life in the inland and coastal waters of British Columbia and Washington is truly extraordinary. It is a fragile world. Pollution, global climate change and other impacts are taking their toll at all levels of the coastal food web. Many species of marine wildlife, such as the endangered Southern Resident killer whales, are showing signs of vulnerability. Meanwhile, vessel traffic in our waters is steadily increasing, placing added pressures on marine animals and their habitats.

We need to minimize our impact.
These guidelines are designed to help you enjoy your wildlife encounters and reduce the risk of disturbing marine wildlife.

Be Whale Wise - Follow these guidelines and local laws in the presence of marine wildlife.

U.S. STRANGLEMENT NETWORK
1-866-767-6114

U.S. ENTANGLEMENT NETWORK
1-877-767-9425

CANADIAN MARINE MAMMAL Reporting Hotline
1-800-465-4336

REGULATIONS FOR KILLER WHALES IN U.S. WATERS

WHERE do federal regulations to protect killer whales apply? In inland waters of Washington State, east of the entrance to the Strait of Juan de Fuca and south of the U.S./Canada boundary.

WHAT do the regulations require? Except for specific exemptions, it is unlawful for any person to:

- Cause a vessel to approach, in any manner, within 200 yards (182.9 metres) of any killer whale.
- Position a vessel to be in the path of any killer whale at any point located within 400 yards (365.8 metres) of the whale.

WHO do the regulations apply to? All motorized and non-motorized vessels (including kayaks and pedalboards), with exceptions to maintain life navigation and for certain types of vessels - government vessels in the course of official duties, ships in the shipping lanes, research vessels under permit, and vessels lawfully engaged in commercial or treaty Indian fishing that are actively netting, retrieving, or closely tending fishing gear.

WHY did NOAA adopt regulations? Southern Resident killer whales were listed as endangered in 2005. Vessel impacts were identified as one of the threats. These regulations implement an action in the recovery plan and are designed to protect all killer whales by reducing impacts from vessels. Southern Residents are also listed as endangered under the Species at Risk Act in Canada.

TRANS-BOUNDARY GUIDELINES FOR THE UNITED STATES AND CANADA. APPLY TO ALL MARINE MAMMALS AND BIRDS

- DO NOT APPROACH** or position your vessel closer than 200 metres/yards to any killer whale in the U.S. DO NOT APPROACH or get closer than 100 metres/yards to any other marine mammals or birds, whether on the water or on land.
- BE CAUTIOUS, COURTEOUS and QUIET** when around areas of known or suspected marine wildlife activity, in the water or at haul-outs and bird colonies on land; especially from May to September during breeding, nesting and seal pupping seasons.
- LOOK** in all directions before planning your approach or departure from viewing wildlife.
- SLOW DOWN:** reduce speed to less than 7 knots when within 400 metres/yards of the nearest marine mammal to reduce your engine's noise and vessel's wake.
- ALWAYS** approach and depart from the side, moving parallel to the animal's direction of travel. If the animal(s) are approaching you, cautiously move out of the way and avoid abrupt course changes. DO NOT approach from the front or from behind.
- PLACE ENGINE IN NEUTRAL** and allow animals to pass. If your vessel is not in compliance with the approach regulation or guideline (1-1).
- PAY ATTENTION** and move away, slowly and cautiously, at the first sign of disturbance or agitation.
- STAY** on the OFFSHORE side of whales when they are traveling close to shore.
- ALWAYS** avoid going through groups of porpoises or dolphins and hold course and reduce speed gradually to discourage bow or stern-riding.
- LIMIT** your viewing time to 30 minutes or less. This will reduce the cumulative impact of all vessels and give consideration to other viewers.
- DO NOT** disturb, swim with, touch, feed or touch any marine wildlife. If you are concerned about a potentially sick, stranded or entangled animal, contact your local stranding network.

Drones/Unmanned Aerial Vehicle or System (UAV/UAS) Guidance
It is illegal to harm or disturb wildlife. To prevent disturbance from an unmanned aerial vehicle (UAV/drones) operators must use extreme caution. UAV/drones may interfere with an animal's ability to hunt, feed, communicate, socialize, rest, breed, or care for its young. Fly during daylight hours, keep your drone in sight and limit your viewing time to reduce the cumulative impact. This is rapidly evolving technology... Know and follow all local regulations.

Marine Protected Areas, Wildlife Refuges, Ecological Reserves and Parks:

- CHECK** your nautical charts for the location of various protected areas.
- ABIDE** by posted restrictions or contact a local authority for further information.

BE WHALE WISE!
DO YOUR PART TO PROTECT MARINE WILDLIFE FROM HARASSMENT AND DISTURBANCE.
FOLLOW THESE GUIDELINES AND ALL LOCAL LAWS.

The laws:
Regulations in Canada and the U.S. prohibit the harassment and disturbance of marine mammals. Many species are threatened or endangered and subject to additional protections under the Endangered Species Act (U.S.) and the Species at Risk Act (Canada).

What is a disturbance?
Disturbance is when we interfere with an animal's ability to hunt, feed, communicate, socialize, rest, breed, or care for its young. These are critical life processes, necessary for healthy marine wildlife populations.

NEED MORE INFORMATION?
Fisheries & Oceans Canada: www.canada.ca/en/fisheries-ecosystem/
Robson Bight (Michael Bigg) Ecological Reserve: www.ec.gc.ca/parks-wc/_reserve/index_e.html
Stratford: www.stratford.ca/ or 1-259-596-7722
North Hood Marine Mammal Stewardship Association: www.nhmssa.org/

US/INLAND WA WATERS: To report a marine mammal harassment, entanglement or disturbance:
NOAA Fisheries, Office for Law Enforcement: 1-800-853-1304
Entanglements: 1-877-707-9425
Stranding: 1-866-767-6114
Download the Dolphin and Whale #11 app

TO REPORT MARINE MAMMAL SIGHTINGS:
The Whale Museum Hotline (WA State): www.whalemuseum.org or 1-800-549-8813
Orca Network (WA State): orca-network.org or 1-866-672-2638

NEED MORE INFORMATION?
Soundwatch Boater Education Program: www.whalemuseum.org or 1-800-278-4710 ext. 13
NOAA Fisheries, West Coast Region: <http://www.westcoast.fisheries.noaa.gov>
NOAA Fisheries, Office of Protected Resources: www.nwr.noaa.gov/

Logos for NOAA, USFWS, BC Parks, and other organizations.

U.S. LAW: STAY 200 M/YD FROM ORCAS

100 M/YD NO APPROACH ZONE FOR ALL MARINE MAMMALS IN US & CANADA

400 M/YD SLOW ZONE

800 M/YD SLOW APPROACH ZONE

100 METRES/YARDS - 1100 FT. ZONE

NO GO ZONE

RECOMMENDED 7 KNOTS

AVOID TRAVEL BEHIND WHALES

U.S. LAW: KEEP PATH CLEAR TO 400 M/YD

REGULATIONS FOR KILLER WHALES IN U.S. WATERS

WHERE do federal regulations to protect killer whales apply? In inland waters of Washington State, east of the entrance to the Strait of Juan de Fuca and south of the U.S./Canada boundary.

WHAT do the regulations require? Except for specific exemptions, it is unlawful for any person to:

- Cause a vessel to approach, in any manner, within 200 yards (182.9 metres) of any killer whale.
- Position a vessel to be in the path of any killer whale at any point located within 400 yards (365.8 metres) of the whale.

WHO do the regulations apply to? All motorized and non-motorized vessels (including kayaks and pedalboards), with exceptions to maintain life navigation and for certain types of vessels - government vessels in the course of official duties, ships in the shipping lanes, research vessels under permit, and vessels lawfully engaged in commercial or treaty Indian fishing that are actively netting, retrieving, or closely tending fishing gear.

WHY did NOAA adopt regulations? Southern Resident killer whales were listed as endangered in 2005. Vessel impacts were identified as one of the threats. These regulations implement an action in the recovery plan and are designed to protect all killer whales by reducing impacts from vessels. Southern Residents are also listed as endangered under the Species at Risk Act in Canada.

TRANS-BOUNDARY GUIDELINES FOR THE UNITED STATES AND CANADA. APPLY TO ALL MARINE MAMMALS AND BIRDS

- DO NOT APPROACH** or position your vessel closer than 200 metres/yards to any killer whale in the U.S. DO NOT APPROACH or get closer than 100 metres/yards to any other marine mammals or birds, whether on the water or on land.
- BE CAUTIOUS, COURTEOUS and QUIET** when around areas of known or suspected marine wildlife activity, in the water or at haul-outs and bird colonies on land; especially from May to September during breeding, nesting and seal pupping seasons.
- LOOK** in all directions before planning your approach or departure from viewing wildlife.
- SLOW DOWN:** reduce speed to less than 7 knots when within 400 metres/yards of the nearest marine mammal to reduce your engine's noise and vessel's wake.
- ALWAYS** approach and depart from the side, moving parallel to the animal's direction of travel. If the animal(s) are approaching you, cautiously move out of the way and avoid abrupt course changes. DO NOT approach from the front or from behind.
- PLACE ENGINE IN NEUTRAL** and allow animals to pass. If your vessel is not in compliance with the approach regulation or guideline (1-1).
- PAY ATTENTION** and move away, slowly and cautiously, at the first sign of disturbance or agitation.
- STAY** on the OFFSHORE side of whales when they are traveling close to shore.
- ALWAYS** avoid going through groups of porpoises or dolphins and hold course and reduce speed gradually to discourage bow or stern-riding.
- LIMIT** your viewing time to 30 minutes or less. This will reduce the cumulative impact of all vessels and give consideration to other viewers.
- DO NOT** disturb, swim with, touch, feed or touch any marine wildlife. If you are concerned about a potentially sick, stranded or entangled animal, contact your local stranding network.

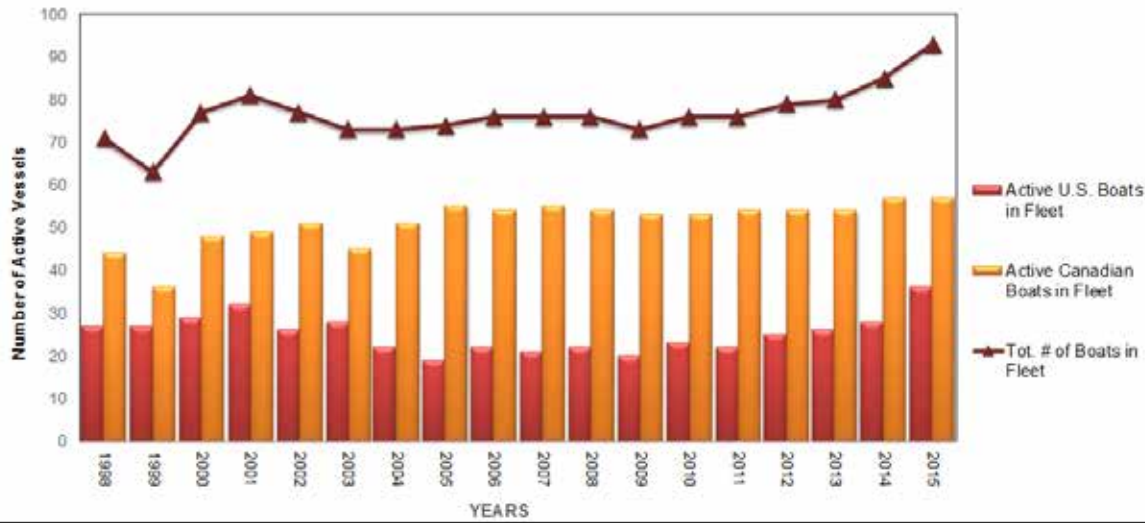
Drones/Unmanned Aerial Vehicle or System (UAV/UAS) Guidance
It is illegal to harm or disturb wildlife. To prevent disturbance from an unmanned aerial vehicle (UAV/drones) operators must use extreme caution. UAV/drones may interfere with an animal's ability to hunt, feed, communicate, socialize, rest, breed, or care for its young. Fly during daylight hours, keep your drone in sight and limit your viewing time to reduce the cumulative impact. This is rapidly evolving technology... Know and follow all local regulations.

Marine Protected Areas, Wildlife Refuges, Ecological Reserves and Parks:

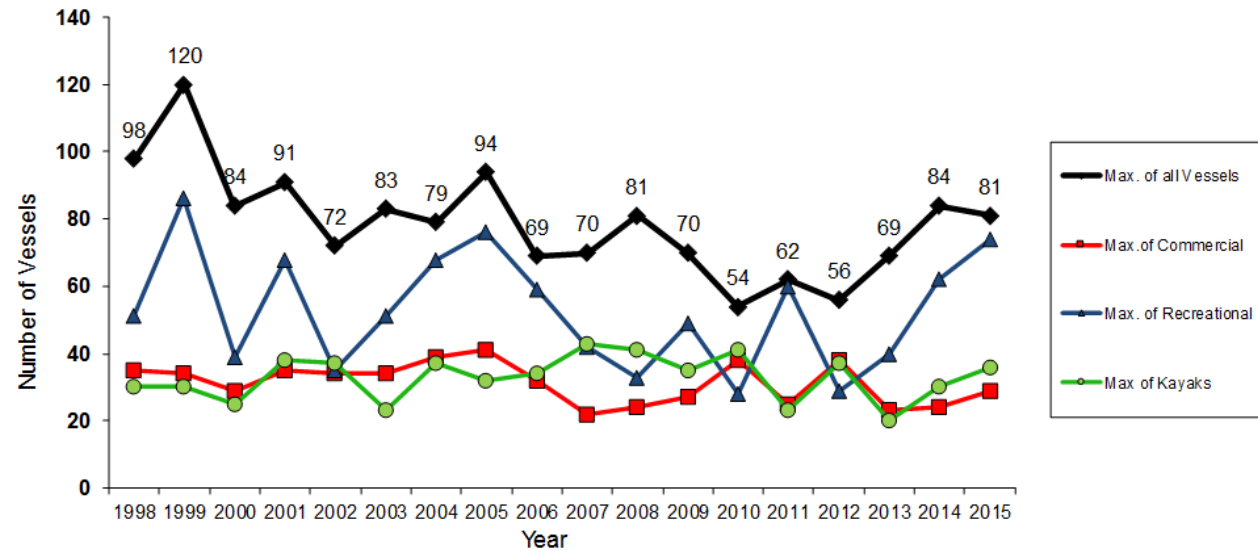
- CHECK** your nautical charts for the location of various protected areas.
- ABIDE** by posted restrictions or contact a local authority for further information.

Results-entire dataset

Soundwatch commercial vessel data 1998-2015.



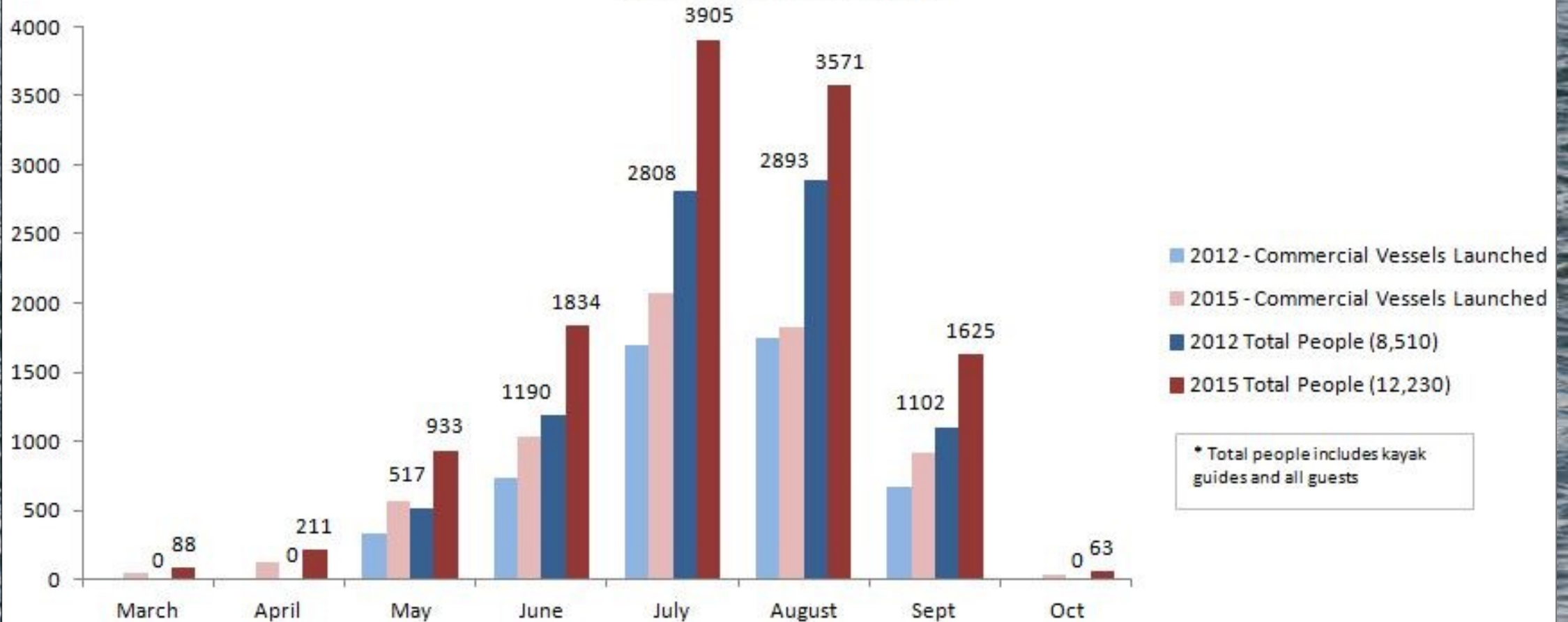
Non-Sig trend. Kayaks: Sig trend since 2012



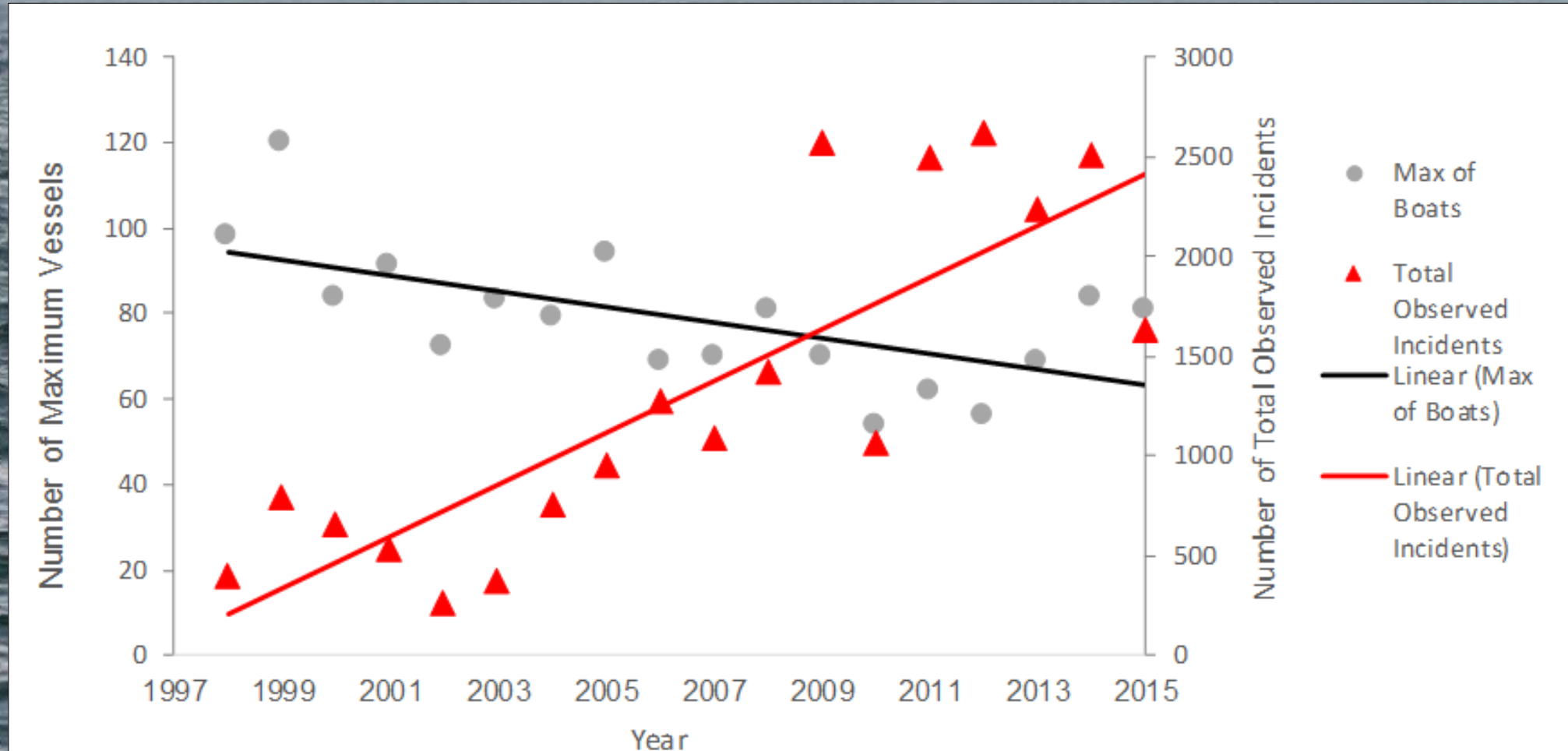
Closer look at Kayaks: Sig trend since 2012

2012 vs 2015 Commercial Kayak Vessel Counts from San Juan County Park

© 2015 The Whale Museum

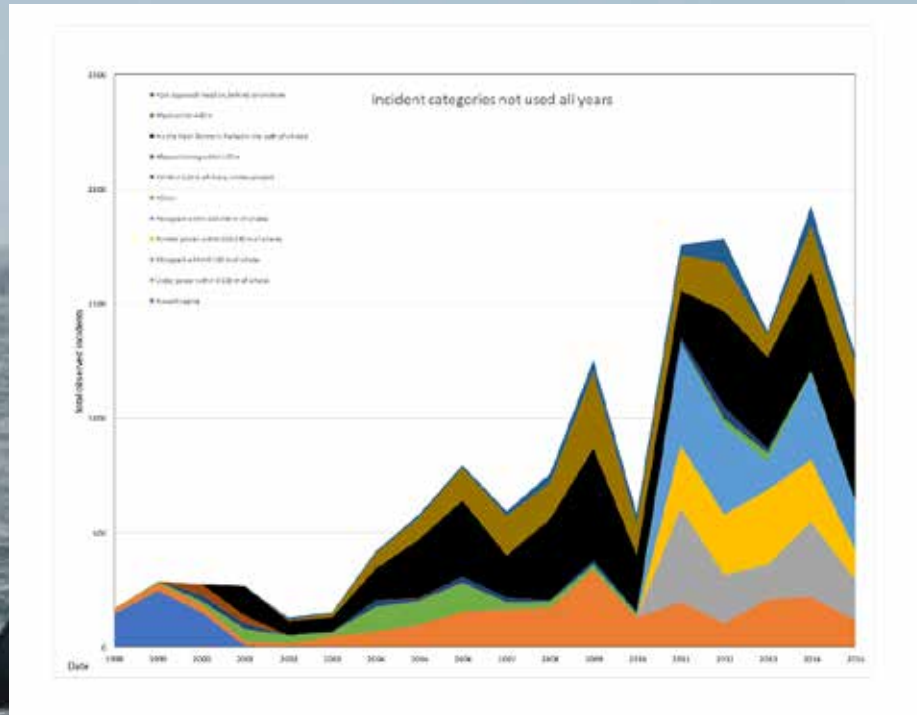
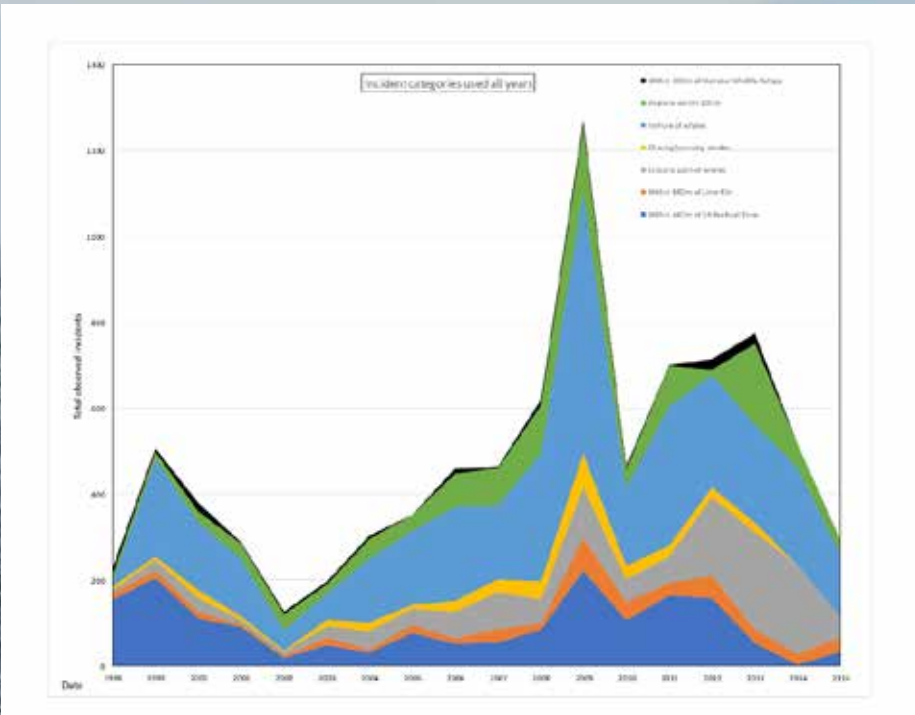


Total Vessel Incidents

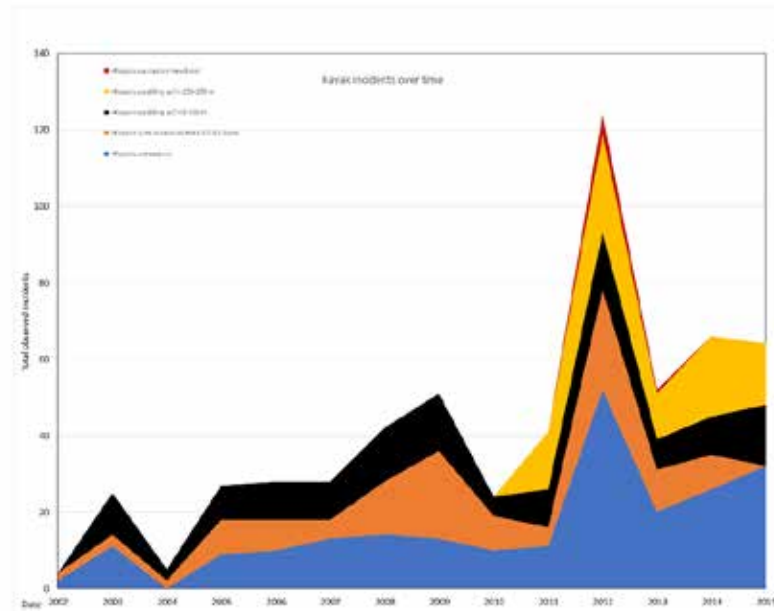


I. Types used all years

I. Types not used all years

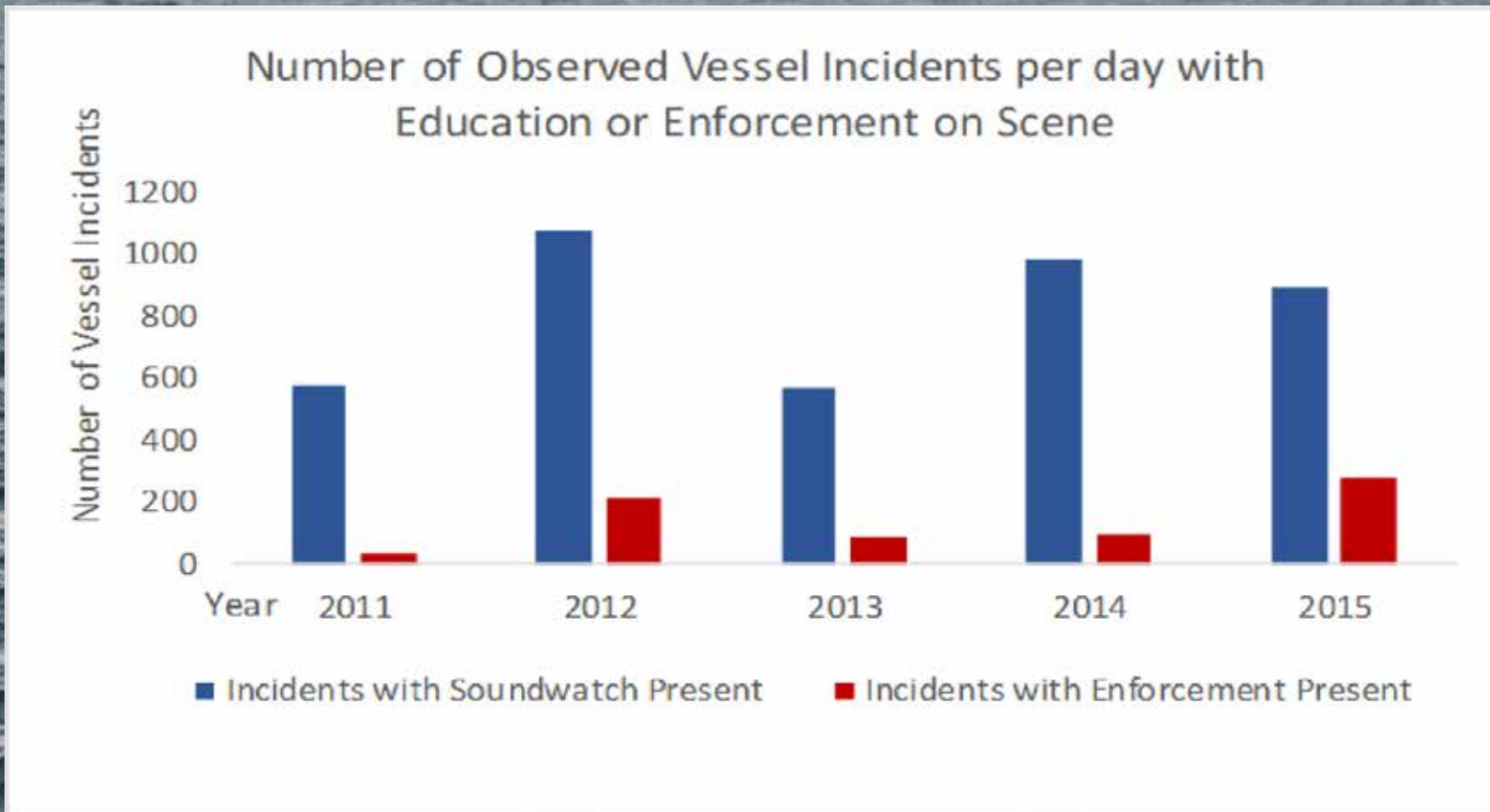


Kayak incidents



- Significant upward trends:
- Within 880 m of Lime Kiln
 - In the path of whales
 - Under power within 0-100 m of whales
 - In the Path (formerly Parked in the path of whales)
 - Fast within 400 m
 - 1st Approach head on, behind, or on shore
 - kayaks spread out

Enforcement



Conclusions

From 1998-2015 show slight increases in boats and recent increases in kayaks engaging in whale watching in turn there are increases in some incident types.

Long-term increasing trends in incidents are those inshore of whales and in the path of travelling whales placing boats near SRKWs

Education and enforcement matters! Recommend continuation and expansion of shore and water-based boater education as well as increased enforcement to accommodate the still growing popularity of wildlife viewing.

Thanks!



Photo credit: Jill Berger