



PROMOTING STEWARDSHIP OF WHALES AND THE SALISH SEA ECOSYSTEM THROUGH EDUCATION AND RESEARCH

March 15, 2017

Lynne Barre
Protected Resources Division
Northwest Regional Office
National Marine Fisheries Service
7600 Sand Point Way NE
Seattle, WA 98115

Dear Ms. Barre:

The Board and staff of The Whale Museum (TWM) would like to express our appreciation to NOAA for bringing the Whale Protection Zone (WPZ) petition to the attention of the public. TWM's comments are based on approximately 40 years of historical data from the Marine Mammal Sightings Database and the Soundwatch Boater Education Program. We have worked with private citizens, the whale watch industry (Pacific Whale Watch Association - PWWA), non-profits and various governmental agencies (including NOAA) over the years to collaboratively develop and fine-tune the Be Wise Guidelines, and federal, state and local regulations. The main theme we have heard clearly from the greater community is that we all care about the whales and want to help them recover. One of the conditions listed by NOAA for pursuing the proposed Whale Protection Zone is community acceptance. Based on conversations we have had with interested members in the community, we are not hearing a common approach nor wide acceptance of this petition.

Furthermore, although our long-term datasets clearly highlight the importance of the west side zone as critical habitat for SRKW, the observations and data collected by our Soundwatch Boater Education Program have made us keenly aware of the importance of an adequate enforcement program to accompany any proposed regulation and lead us to doubt the effectiveness of the current proposal as it stands. The Whale Museum does not support the current Whale Protection Zone proposal and offers the following details and recommendations for further explanation.

We acknowledge that the proposed WPZ on the west side of San Juan Island includes an important portion of the whales' critical habitat. It serves as one of the core areas for their survival as this is where the majority of salmonids migrating to the Fraser River travel and are easiest for the whales to encounter. The SRKWs are in the Salish Sea an average of 196 days a year; of those days, they are sighted in the west side region (Figure 1 an average of 115 days a year (58.46%) (Figure 2). This west side region is also a main corridor for vessels of all sizes and types, from motorized to human powered vessels such as kayaks, with a high of 153 kayaks in a single half hour count from 2016 Soundwatch data (Figures 3) (2016 SW Report).

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Because of the abundance of migrating salmonids, this is also an area where there is intense sport, commercial and tribal fishing efforts and where violations of vessel guidelines and regulations most commonly occur (Figures 4-5). Vessel disturbance is one of the three main threats faced by the endangered Southern Resident orcas (including acoustic disturbance) and thoroughly assessing the impacts that all vessels have on the population is vital to their recovery. Recent studies of the Southern Resident Killer Whales (SRKW) document changes in orca vocal behavior, swimming behavior and that SRKW carryout more surface active behavior when vessels are close compared to when vessels are far away (2012 Williams et al, 2011 Holt et al, 2009 Holt et al, 2012 Williams et al, 2008 Noren et al, 2007 Williams et al, 2006 Williams et al, 2004 Foote et al).

TWM believes that, while whale watching (whether commercial or recreational, motorized or human-powered vessel) provides crucial conservation education and outreach opportunities furthering marine mammal protection, the continued vessel pressures and noncompliance with the Be Whale Wise Guidelines, the Pacific Whale Watch Association Guidelines, the San Juan County Marine Stewardship Area Guidelines as well as the Washington State and Federal Vessel Regulations for all killer whales (Figures 4-5), show a clear need for continued enforcement of the current regulations. Since 2012, Soundwatch has recorded over 10,500 violations of the guidelines and regulations and WDFW has written 135 warnings or citations (2016 SW Report and pers. comm. with WDFW). The current regulations are still not being adequately enforced and resources need to be allocated to ensure a greater enforcement presence on the water.

We offer our detailed comments to you regarding the petition for a Whale Protection Zone (WPZ) and suggestions for further consideration based on the existence of an increased and ongoing education and enforcement effort:

Education and Enforcement

Enforcement is already stretched too thin and is unable to adequately enforce the current vessel regulations. TWM does not support adding an additional regulation, especially one that encompasses a 10 square mile zone, still needs a plan for enforcement and management so as not to solely depend on the education of recreational boaters. The 2016 Soundwatch report shows that overall vessel awareness of guidelines and regulations has been decreasing (2016 SW Report). Given that trend, NOAA and all Be Whale Wise partners must increase and advance the methods of education and enforcement that are currently active.

Killer whale guidelines and regulations need to be available on navigation charts and GPS units to help reach and educate more boaters on ALL types of vessels. TWM supports boater education about the SRKW Summer Core Habitat (designated as critical habitat by NOAA). We recommend that this area be referred to on all NOAA and navigational charts/aids as '*Whale Waters-Watch Out*' to serve as notice to boaters of the high likelihood of encountering killer whales in this area between May and October and to alert boaters that vessel regulations are in effect. These areas could be widely published as Notices to Mariners and included in the Washington State Department of Licensing along with boater registration renewal notices (regulations are currently posted yearly in the Washington State Fishing Rules Booklet).

Washington State Boater's Safety Card currently is required for anyone operating a vessel who was born after 1955. The course has a paragraph on the killer whale regulations; however, we propose a more thorough discussion on the killer whale regulations and Be Whale Wise guidelines, known vessel effects and how to operate a vessel around killer whales. Washington State Boater Education Cards should also be required of anyone operating any type of vessel on the water.

Proposed San Juan Island Whale Protection Zone

The Whale Museum does not believe there is full community support for a ¼ mile Whale Protection Zone on the west side of San Juan Island. However, there is support for a more comprehensive Vessel Management Plan for *all vessels* operating in SRKW Critical Habitat. Recently, many studies have shown that masking from increased underwater background noise occurs in the acoustic range of vocalizing or echolocating animals. Acoustic studies on terrestrial animals and reports that a 3 dB increase in noise, which we humans would say is barely perceptible, reduces the listening area available to animals by 30%, and a 10 dB increase reduces listening area by 90% (2010 Barber et al.). Under the condition of spherical spreading, a vessel making noise at 150 yards is 3.5 dB quieter than when at 100 yards. At 200 yards this vessel's noise is 6 dB quieter (2002 Erbe). The most recent study published from NOAA's Dtag research showed that speed was a significant factor in reducing vessel noise underwater (2015 Houghton et al.).

TWM recommends two key components to a more comprehensive Vessel Management Plan be included in the already proposed Slow Zone and a Whale Right of Way Zone that would apply to all marine mammals and specifically all eco-types of killer whales.

San Juan Island Vessel Management:

- *SLOW ZONE* for all vessels, requiring vessels to travel at less than 7 knots from Mitchell Point to Cattle Pass when within 1/2 mile of shore, in effect year-round. Rationale for this provision is to reduce the most common and potentially most harmful violation of vessel regulations (> 7 knots within 440 yards, motoring within 200 yards and motoring inshore of whales) as well as to reduce the volume and pitch of boat noise in the primary areas where whales are known to be spread out and foraging. A similar method has been shown to be effective in preventing ship strikes with North Atlantic Right Whales and could prevent future ship strikes to all whales in the SRKW Summer Core Habitat and prevent large amounts of acoustic disturbance (2014 Laist et al.).
- *WHALE RIGHT OF WAY ZONE* for motorized vessels when whales are present between May 1 and October 30 from Mitchell Point to Eagle Point. Vessels shall be *required* to move off shore to ¼ mile (440 yards) when whales are '*present*.' '*Whales present*' should be defined as when a whale is within ¼ mile (440 yards) of your vessel and when vessels and whales are within ¼ mile (440 yards) from shore. Non-motorized vessels should be required to remain rafted as close to shore as possible, out of the path of the whales and not spread out.

These recommendations are consistent with the existing whale watching guidelines adopted by the PWWA for many years. The PWWA worked with The Whale Museum, NOAA and other non-profits to adopt stricter guidelines for the association when operating around killer whales. Many of these recommendations are also consistent with current guidelines adopted by San Juan Island Kayak Association (SJKA). However, they are voluntary and there is no consequence for violating these guidelines.

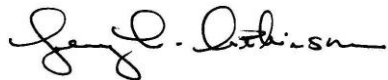
Vessel Operator Permit Recommendation:

TWM would like to recommend that NOAA further explore vessel permitting for commercial whale watching that are along the same lines of permits required of Washington State commercial fishing charters. TWM suggests a phased permitting system that could evolve over time as current levels of whale watching efforts are evaluated and better understood. To begin, we recommend a permit be immediately required for all commercial company vessels engaged in whale watching activities, including kayaks, charters, aircraft and specific whale watching vessels operating in the '*Summer Core Whale Habitat*'. This would include all Canadian and U.S. companies operating in this specific area regardless of whether they are current members of the PWWA or SJKA. Initially, there could be an annual permit given out to all operators for a fee, established as a flat rate or an assessment based on use and/or passenger capacity.

In order to obtain a permit, all company vessel operators (guides and assistant guides for kayakers) must also be required to obtain an annual certification as to knowledge of whale behaviors and proper procedures for operating vessels around whales as well as current regulations and show Coast Guard approved credentials. For kayak companies, guides must have documentation showing safety credentials and have records showing adequate training and experience in the kayak industry. In the future, permits may give a company more access to certain areas, viewing times, approach distance, etc.

We appreciate the opportunity to comment on behalf of The Whale Museum. We are pleased to be working together to help recover the Southern Resident Killer Whales, and all other marine mammals that inhabit the Salish Sea. We believe the implementation of these modifications to the petition will go a long way to furthering that goal.

Sincerely,

A handwritten signature in black ink, appearing to read "Jenny L. Atkinson". The signature is fluid and cursive, with the first name "Jenny" being more prominent.

Jenny L. Atkinson
Executive Director

Figure 1: The Whale Museum's Marine Zones (1 -3) (left) and Quadrants (176-186) (right) that are used to analyze sightings and vessel data.

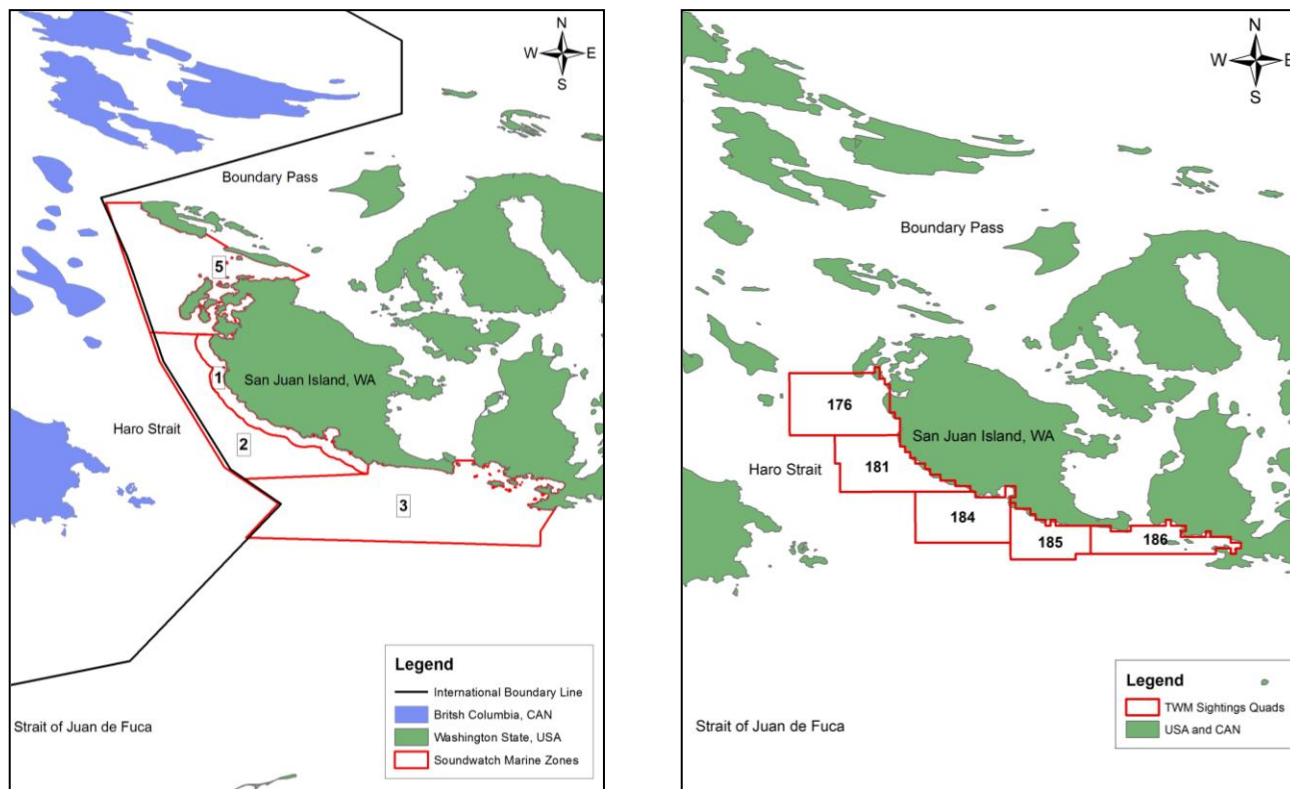


Figure 2. Number of days SRKW were seen on the West Side of San Juan Island relative to the total number of days SRKW were seen in the Salish Sea (i.e., “whale days”) from 1976-2014.

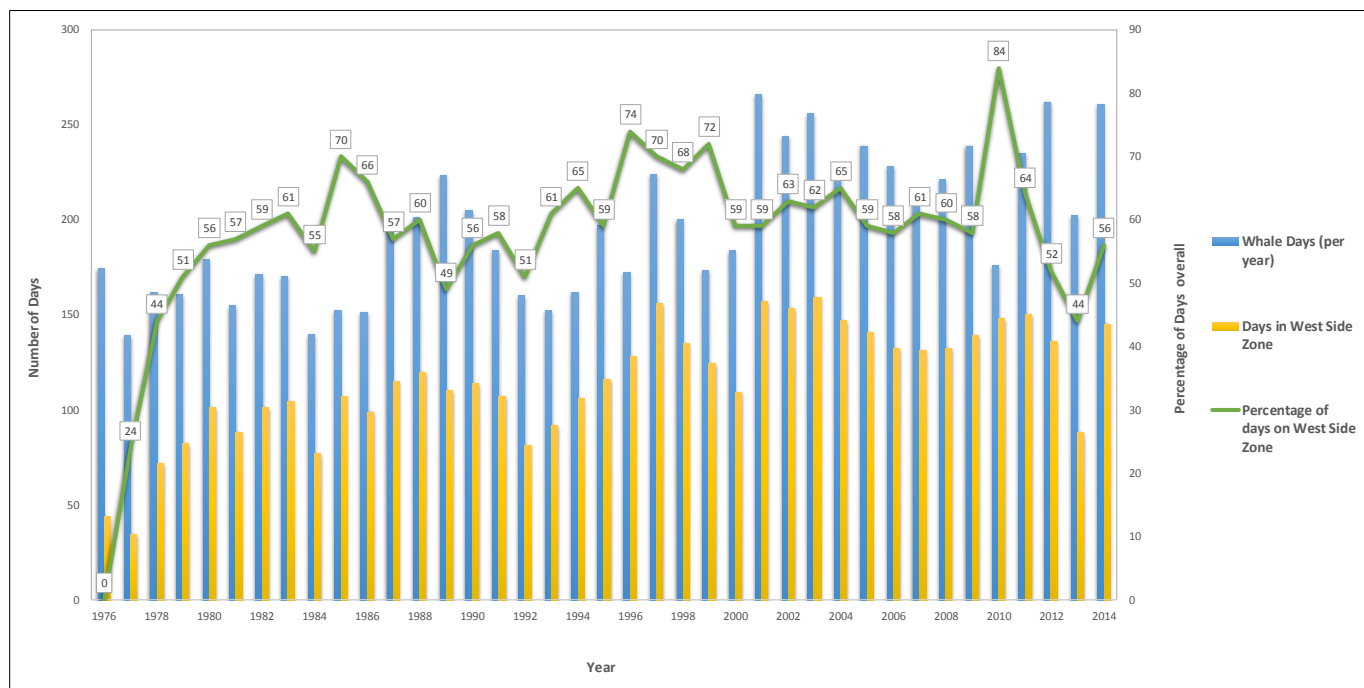


Figure 3: Soundwatch Observed Vessel Counts from 2011 – 2016 by Zone in Southern Resident killer whale habitat.

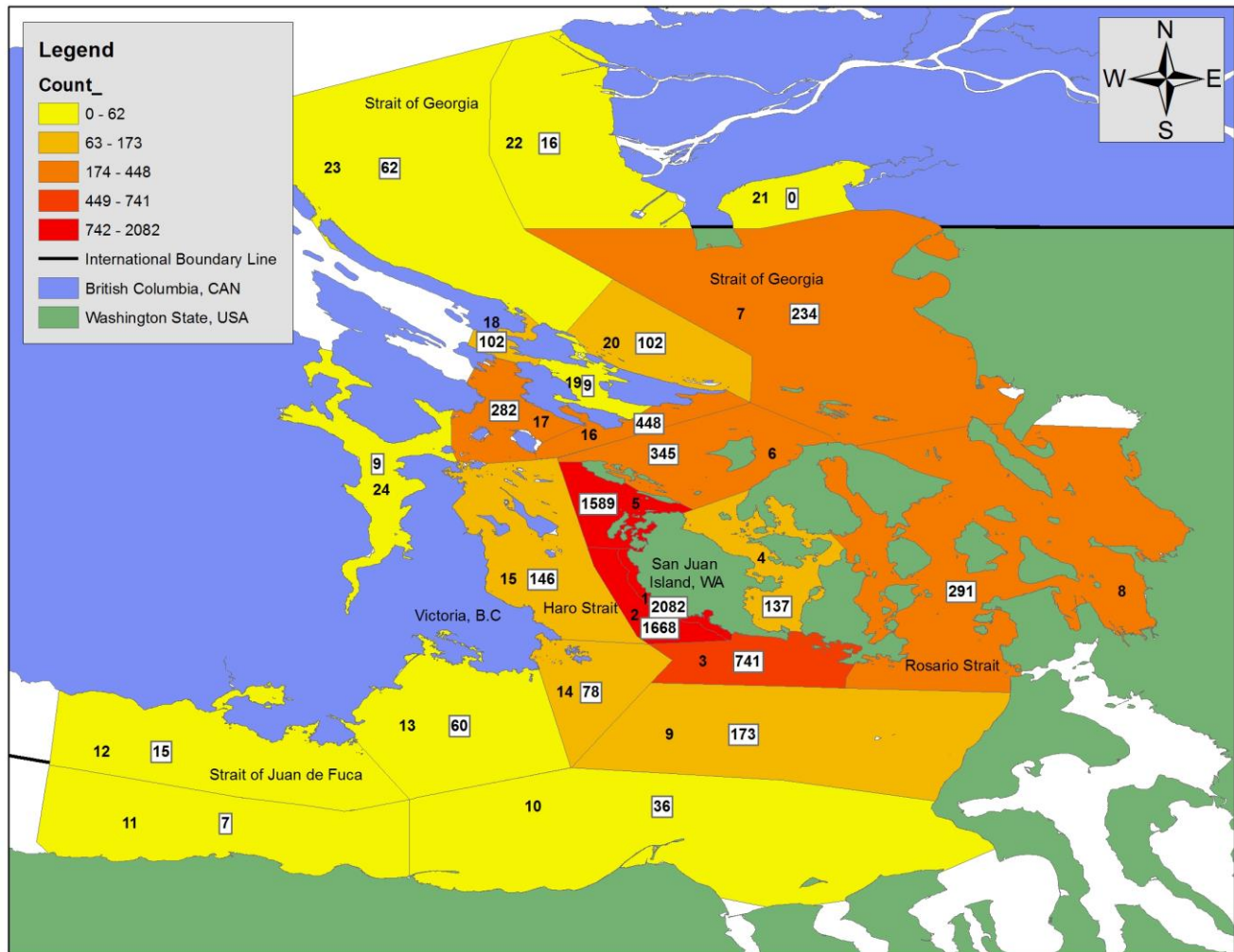


Figure 4: Soundwatch Observed Vessel Incidents 2011-2016 in Southern Resident killer whale habitat.

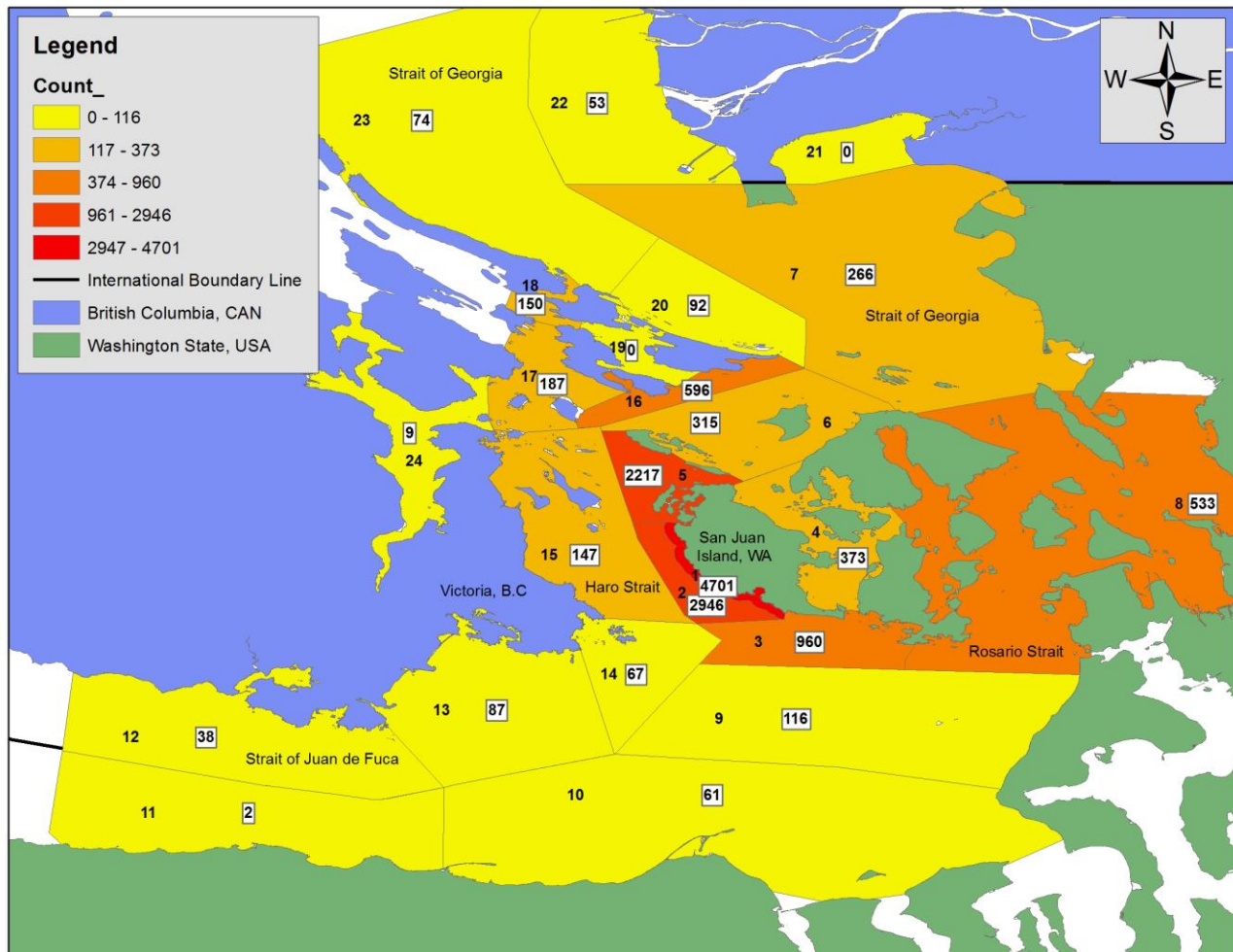
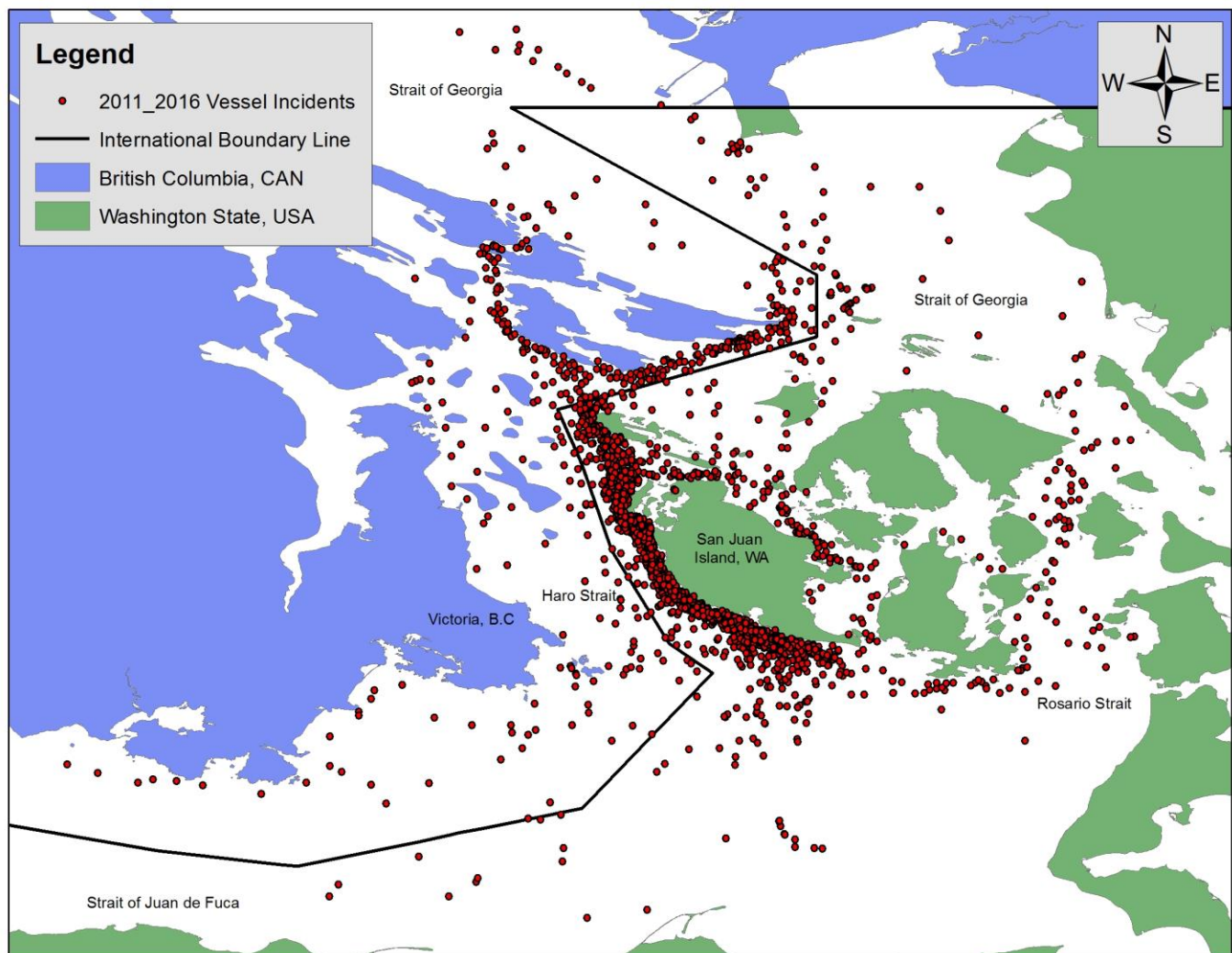


Figure 5: Soundwatch Observed Vessel Incident locations 2011-2016 in Southern Resident killer whale habitat.



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