



SOUTHERN GULF ISLANDS
WHALE SIGHTING NETWORK

2025 Annual Report



The Southern Gulf Islands Whale Sighting
Network is located in the Southern Gulf
Islands in the Salish Sea.

We acknowledge the ancestral territories
of the Coast & Straits Salish peoples, their
pre-Confederate Douglas Treaty rights,
and their asserted aboriginal rights and
title in this area.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

2025 Annual Report

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Photo on first page by Kathleen Durant. All photos in this report were taken from shore by SGIWSN members.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

Executive Summary

2025 was a landmark year for the Southern Gulf Islands Whale Sighting Network (SGIWSN), marked by record levels of whale activity, significant growth in community participation, and increasingly clear evidence of gaps in marine protection measures. The network recorded 298 whale days, the highest on record, and submitted 2136 verified sightings reports, reflecting a highly engaged citizen science community. Participation expanded to more than 140 trained observers, with 68 actively contributing data across the Southern Gulf Islands.

At the same time, monitoring revealed persistent compliance challenges:

- 1015 non-AIS vessels entered the Vessel Restricted Zones (VRZs).
- Reports of Marine Mammal Regulations violations increased, with 62% involving commercial whale-watching vessels.
- Enforcement gaps remain significant, particularly for small recreational vessels.

Large commercial vessel trends in Boundary Pass highlight increasing disturbance:

- An approximately 2.5-fold increase in overall tanker traffic in Boundary Pass following the Trans Mountain Pipeline terminal expansion.
- Vessels are present more often, contributing to a louder environment, between 2017 and 2025 in Boundary Pass.
- ECHO voluntary slowdown participation rates are gradually declining (87% → 84%).

Whale sightings underscore the importance of this region as year-round habitat:

- Southern Resident Killer Whales (SRKW) were present primarily *outside* the VRZ enforcement period and the ECHO slowdown period (19 of 25 sighting days).
- Bigg's killer whales and humpbacks had a strong and increasing presence.
- Rare and emerging species sightings highlight the region's biodiversity significance.

These findings point to a central conclusion: current seasonal and voluntary protection measures are not aligned with whale presence, and their effectiveness could be improved by:

- Year-round VRZ protections.
- Year-round, potentially mandatory commercial vessel slowdowns.
- Licensing and regulation of commercial whale-watching activity.
- Increased enforcement of VRZs with targeted timing and ticketable offences.
- Expanded public education, including cross-border outreach.

SGIWSN continues to demonstrate that community-based science can help generate high-quality data that promotes evidence-based decision making, and remains a critical partner in advancing whale conservation in the Salish Sea.

Key Findings at a Glance

Whale Activity

- 298 whale days (record high)
- 2136 sightings reports submitted
- Year-round presence of multiple species

Southern Resident Killer Whales

- 25 sighting days (down from 45 in 2024)
- 19 of 25 days occurred outside VRZ season

Other Cetaceans

- 151 Bigg's killer whale days (increasing trend)
- 171 humpback whale days (increasing trend)
- First-ever Fin whale sighting recorded

Compliance & Enforcement

- 1015 non-AIS vessels entered VRZs
- Marine mammal violations increased (10 → 13)
- Commercial whale watching responsible for majority of violations

Commercial Vessel Traffic

- Increased tanker traffic linked to Trans Mountain Pipeline expansion
- Rising underwater noise levels in Boundary Pass
- ECHO slowdown participation declining 87% → 84%



photos by Demaris (FAB 2025) (top) and Janine McNeilly (bottom)

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

Why Our Work Matters

The Southern Gulf Islands sit at the convergence of rich marine biodiversity and intense human activity. These waters are critical habitat for endangered Southern Resident killer whales (SRKW) and support a wide range of cetacean species. To protect these whales, in 2019, the federal government implemented Vessel Restricted Zones, which are closed to vessels to give SRKW a sanctuary from vessel-related noise and physical disturbance. These zones, in effect from June 1 to November 30, are located off the southern coast of North Pender Island and the southeastern coast of Saturna Island.

The Southern Gulf Islands Whale Sighting Network (SGIWSN) was created in response to the implementation of these Vessel Restricted Zones in 2019. Sponsored by the Saturna Island Marine Research and Education Society (SIMRES), we are a volunteer community-led initiative to collect field data on whale and vessel activity around Saturna, Pender, Mayne, and Galiano Islands. Our network of retirees, students, scientists, and islanders of all backgrounds, works together to support the recovery of our coastal neighbours—the whales. SGIWSN sightings come from land-based observations and are verified through multiple sightings, collaboration with researchers, high quality photographs, and/or hydrophone data. All data are publicly accessible at [Spyhopper.ca](https://spyhopper.ca).

Through coordinated land-based observations, the network provides:

- Long-term ecological monitoring
- Real-time reporting of whale activity
- Documentation of vessel interactions and infractions

This work fills critical data gaps and supports evidence-based conservation and policy decisions.



Watching Humpbacks pass by at Thieves Bay, Pender Island, on July 11, 2025. Photo by Kathleen Durant.

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Observer Network Growth

Our community of volunteer citizen-scientists continues to grow. In 2025, 68 people submitted sightings, up from 58 the previous year and the number of registered sighters has now surpassed 140, with participation from each of the four Southern Gulf Islands.

In 2025, we focused on increasing sighters on Galiano Island. A November 2025 training session brought several new Galiano participants into the SGIWSN. We now have a group of sighters that reports regularly from the island. In 2024 and 2025, Galiano's spatial coverage expanded to areas north of Active Pass.



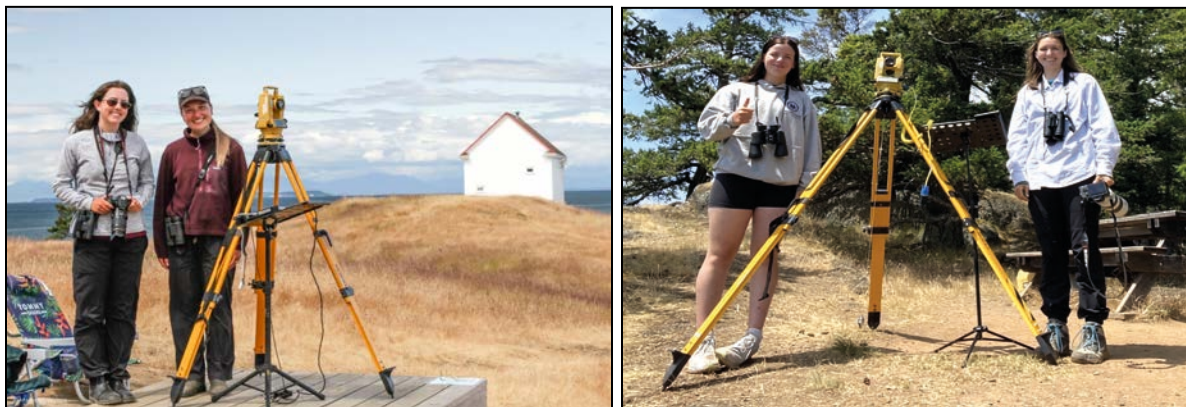
The T124As and T100s visited Cliffside off Saturna Island on May 6, 2025. Photo by April Houweling.

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Researchers

In 2025, researcher Lauren Latusus and her assistant, Hannah Berry, returned to Saturna Island from May through September to conduct systematic monitoring from East Point as part of Lauren’s master’s research at SFU. They tracked whales and vessels, and documented vessel infractions, including fishing violations and unauthorized transits through the Saturna VRZ providing valuable data on whale presence and vessel activity in this critical habitat.

This year was also the second season of systematic surveys in the Pender VRZ. Janine McNeilly, a SFU-trained researcher, and her assistant, Lily Davis, conducted land-based observations from the Oaks Bluff viewpoint on North Pender Island from May through October. SFU researchers will return to East Point and SIMRES/Raincoast researchers are expected to be on Oaks Bluff in 2026 to continue this work, improve our understanding of whale behaviour in Boundary Pass, Swanson Channel, and Haro Strait, and to inform effective protection strategies.



Lauren Latusus and Hannah Berry monitor the Saturna VRZ from East Point, Saturna Island. Janine McNeilly and Lilly Davis monitor the Pender VRZ from Oaks Bluff, Pender Island. Photos by Maureen Welton and Valeria Vergara.

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Whale Sightings

Across all whale species, the SGIWSN recorded a record-breaking 298 whale days in 2025—our most active year on record. There was consistent activity from April through December, with at least 23 whale days each month, peaking in May, when all 31 days were recorded as whale days. These numbers highlight the critical importance of sustained, year-round monitoring and protection. All SGIWSN whale data is accessed on spyhopper.ca.

Southern Resident Killer Whales



J19, 'Shachi', J pod matriarch of the Southern Resident killer whales, near East Point, Saturna Island, on April 19, 2025. Photo by Marlene Cummings.

Southern Resident Killer Whales (SRKW)

- 25 sighting days in 2025 (down from 2024)
- Absent during May and June
- Majority of sightings occurred outside VRZ enforcement period

In 2025, the SGIWSN documented 25 SRKW days, a notable decrease from 45 in 2024, and still slightly below the 29 days recorded in 2023 (Figure 1). SRKW were absent in May and June 2025, months when they were frequently observed in 2022, 2023, and 2024. In 2025, most SRKW whale days were reported in February, March, and April, all outside the period when the VRZs are in effect. Most reports came from Swanson Channel and Boundary Pass. SRKW are typically observed traveling north through Swanson Channel and Active Pass into the Strait of Georgia, then traveling southwest in Boundary Pass a few days later.

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SRKW were sighted in every month of 2025 except January, May, June, and August, reinforcing what we've observed in past years: these whales use the Southern Gulf Islands year-round. Nineteen of the 25 sighting days occurred outside the VRZ season, underscoring the importance of extending protective measures beyond the current timeframe. These findings support the need for year-round conservation efforts, including the VRZs and the Port of Vancouver's ECHO Slowdown program.

Across all years, SRKW presence varies by month (Figure 1). Overall, the months of January, August, October, and December tend to have the fewest sightings. There is usually an early spring peak in February, March, and April. May and June are more variable, with presence in only three of the six monitoring years, but typically with several days of sightings when whales are present. **This timing misalignment highlights a critical gap in current protection measures.** Sightings peak again in July, followed by reduced presence in August. Sightings generally increase again in the fall, particularly in September and November.

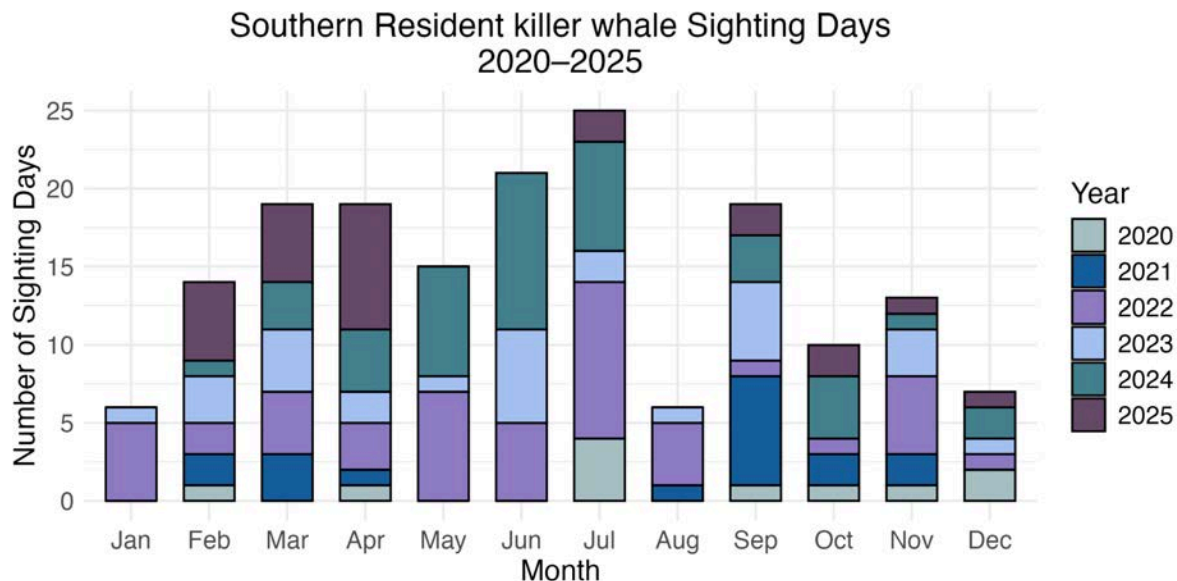


Figure 1. Southern Resident killer whale ‘whale days’ (days in which there was at least one sighting) reported by the Southern Gulf Islands Whale Sightings Network by month from 2020 to 2025.

Three new SRKW calves were born in 2025: J63, J64, and K47¹. J63 was first sighted in April 2025, and has since been confirmed as female and the first calf of J40 Suttles. The previous calf born into the J14 matriline was J59 Sxwyeqólh, born to J37 Hy’Shqa in 2022. J64 was first sighted in September 2025, and was likely the offspring of J42 Echo, her first viable calf. K47

¹ Center for Whale Research (2025) *Southern Resident Orca Population*. Available at <https://www.whaleresearch.com/orca-population> (accessed Mar 18, 2026).

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was first spotted in December 2025. While the mother of this calf remains unknown, K47 is the first calf born into K pod since K45 Prosper in 2022².

Sadly, reports from November 2025, indicate that J64 was most likely deceased³. The most recent reports confirm that J63 and K47 are still alive and traveling with their families. In addition, J62, one of the calves born in 2024 to J41 Eclipse of the J19 matriline, is also still alive². These calves offer hope for the future of the SRKW population, which has been in decline since the 1990s³.

² Orca Conservancy (2026) *Meet the Southern Resident killer whales*. Available at <https://www.orcaconservancy.org/meet-the-southern-residents> (accessed Mar 18, 2026).

³ Center for Whale Research (2025) *Southern Resident Orca Population*. Available at <https://www.whaleresearch.com/orca-population> (accessed Mar 18, 2026).

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Bigg's (Transient) Killer Whales



T019B, 'Galiano' visited Pender Island, on September 11, 2025. Photo by Kathleen Durant.

Bigg's Killer Whales

- 151 whale days (increasing trend)
- Present year-round
- Expanding distribution into new areas

In 2025, the SGIWSN documented 151 Bigg's killer whale (BKW) days, up from 137 in 2024, and 112 in 2023, indicating their strong and consistent presence in the Southern Gulf Islands. Unlike Southern Residents, BKW sightings do not have consistent directional travel patterns, but clear distribution trends have emerged. As in 2024, sightings increased in Plumper Sound and Navy Channel—areas where our observers have never recorded SRKW and have only rarely recorded humpbacks. A pod of BKW was again seen travelling deep into Bedwell Harbour, repeating a 2024 pattern, despite the area's high vessel traffic.

Seventeen new-to-us Bigg's killer whales were identified in 2025, compared to eighteen in 2024 underscoring the importance of community-based monitoring for BKW movement and presence across the region.

Bigg's killer whales were sighted in every month of 2025 and more broadly, in every month of every year since 2020, except March 2020 and October 2021 (Figure 2), demonstrating their

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consistent presence in our study area. BKW monthly presence is similar between years with peak occurrence from May through September, and moderate sightings in March, April, October, November, and December. January and February have the fewest BKW sightings (Figure 2). Overall, BKW sightings are much more consistent than those of SRKW.

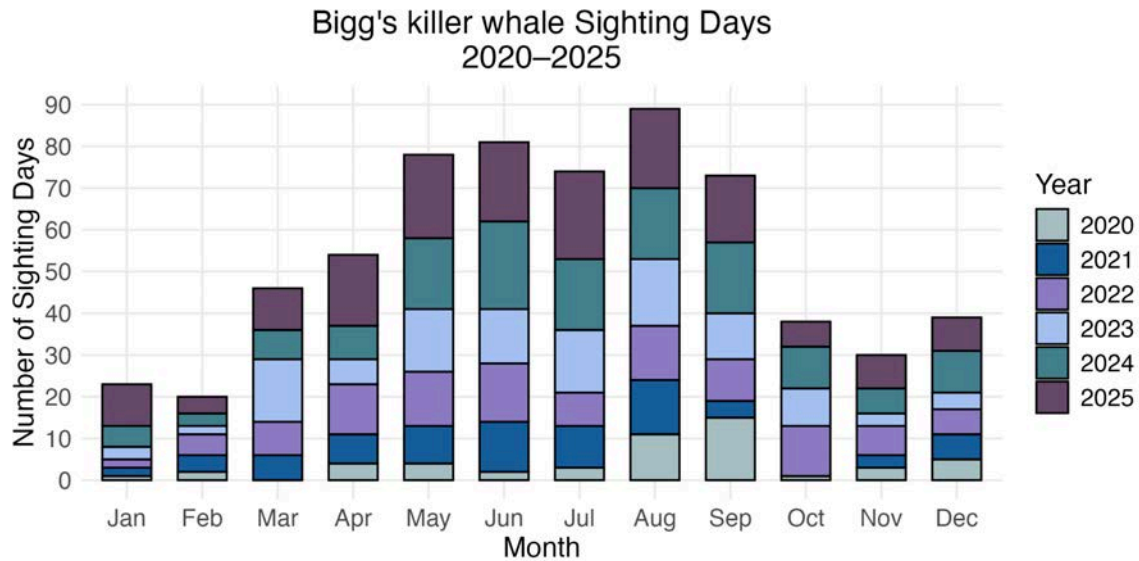


Figure 2: Bigg's killer whale 'whale days' (days in which there was at least one sighting) reported by the Southern Gulf Islands Whale Sightings Network by month from 2020 to 2025.



A pod of Bigg's killer whales travel north through Active Pass on October 17, 2025. Photo by Tom Wilson on Mayne Island.

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Humpback Whales



Humpback whales Aerie/BCY0983 and an unknown individual passing through Swanson Channel during sunset on September 8, 2025. Photo by Kevin Balmer.

Humpback Whales

- 171 whale days (significant increase)
- Strong seasonal patterns with spring and fall peaks
- Increased sightings around Galiano Island

In 2025, the SGIWSN documented 171 humpback whale days, up from 130 in 2024, and 96 in 2023. Most reports came from Boundary Pass and Swanson Channel, and in late 2025, new sighters began consistently reporting humpbacks off the northern end of Galiano Island. The 2026 spring/summer migration will show us which whales—and how many—return to these waters.

Fifteen humpbacks new-to-SGIWSN were identified in 2025, compared to twelve in 2024, highlighting how actively the population is now using the region. Many familiar whales also returned, including Big Mama and Divot, each documented for the sixth consecutive year. Big Mama was seen again with a new calf, an encouraging sign

that the Salish Sea remains an important habitat for mothers and young whales.

The seasonal pattern of humpback sightings was stable between 2020 and 2025 (Figure 3). January, February, and March are low sighting months while whales remain in warmer wintering waters. In fact, SGIWSN recorded no February humpback sightings during this period. As a

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preview, 2026 brought our first February humpback sighting which will be detailed in the SGIWSN 2026 Annual Report. Sightings begin to rise in April and surge in May and June.

Between 2020 and 2025, there were at least 15 humpback whale days in May and June. Sightings declined from July to September and then increased again in the fall (October - December) as the whales migrated south past our coast (Figure 3). This November and December were especially active: November 2025 had 28 humpback whale days, compared to 17 in November 2024, likely due in part to the increased sighter effort and humpback sightings around Galiano Island beginning in November 2025.

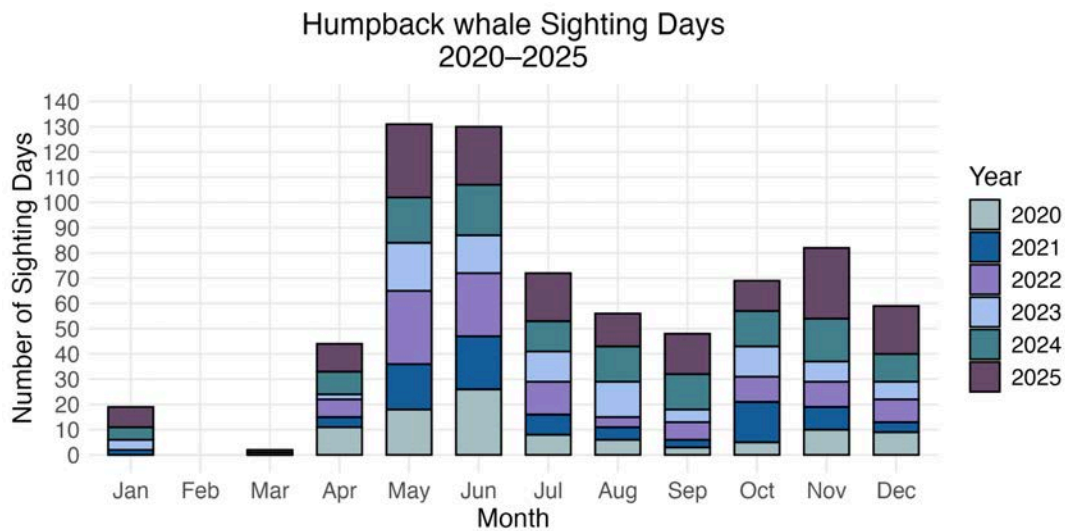


Figure 3: Humpback whale ‘whale days’ (days in which there was at least one sighting) reported by the Southern Gulf Islands Whale Sightings Network by month from 2020 to 2025.



Humpback whale Graphite/BCX2077 breaching off Cliffside on Saturna Island on May 9, 2025. Photo by Patricia de Joseph.

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Other Cetaceans



A Fin whale swims by South Pender Island, on September 17, 2025. Photo by Kathleen Durant.

Other Cetaceans

- First Fin whale sighting for our network
- Record number of Harbour porpoise reports (480)
- Occasional sightings of Minke whales, Pacific White-sided dolphins, and Dall's porpoise

In 2025, our network recorded our first-ever Fin whale sighting! On September 17, sighters on Pender Island spotted a whale in Boundary Pass they initially thought to be a Humpback, then a Minke. Based on its large size and powerful blow, Kathleen Durant suggested it might be a Fin whale, which was later confirmed. Fin whales are rare visitors to the inland waters of the Salish Sea, and even more uncommon in the Southern Gulf Islands—most sightings occur in the Juan de Fuca Strait⁴. Given this unexpected sighting, it was especially exciting to document this individual.

2025 also set a new record for Harbour porpoise reports. The 480 reports submitted this year, broke the previous record of 291 in 2024. Sightings of these small cetaceans are as important as those of large whales, providing valuable data on population

⁴ Towers JR, Malleson M, McMillan CJ, Cogan J, Berta S, Birdsall C (2018) Occurrence of Fin Whales (*Balaenoptera physalus*) Between Vancouver Island and Continental North America. *Northwestern Naturalist* 99(1): 49-57 <https://doi.org/10.1898/NWN17-16.1>

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trends, distribution patterns, and seasonal movements. Our data show that the highest number of Harbour porpoise days in our study area occurs between April and September.



A harbour porpoise swims past Pender Island, on December 12, 2025. Photo by Kathleen Durant.

We also recorded Dall's porpoise activity over the year. In Swanson Channel, near Pender Island, there were 7 sighting days in total, matching last year. Two occurred in January and two in April and one each in October, November, and December. This contrasts from 2024 when all seven days were in October, underscoring the value of reporting all species sightings to contribute to a long-term dataset of cetacean use of the area.

In 2025, there were two Minke whale days, one in September and one in November, both in Boundary Pass off South Pender Island. In 2024, there were six Minke whale days. Since 2020, most Minke sightings have occurred in September and October, with few in spring and summer. Since monitoring began in 2019, sighters have never reported a Minke in January, February, March, or December. These monthly patterns align with known Minke whale migratory behaviour⁵. 2025 marked a milestone for us with our first individual Minke identification—M003, "Galaxy". Thanks to Bay Cetology for helping with this identification.

Pacific White-sided Dolphins (PWSD) were observed on one day in 2025. In March, two dolphins traveling together were seen by sighters on Cliffside and East Point on Saturna Island. Since 2020, our network has documented PWSD three times in total. Before 2025, they were seen in August 2023 in Swanson Channel off Pender Island and in December 2020 off East Point on Saturna Island.

Our network did not record any Elephant seals or Grey whales in 2025. To date, there have been two Elephant seal sightings, both in 2024, one off south Pender in July and one off East

⁵ Towers JR, McMillan CJ, Malleson M, Hildering J, Ford JKB, Ellis GM (2013) Seasonal movements and ecological markers as evidence for migration of common minke whales photo-identified in the eastern North Pacific. *Journal of Cetacean Resource Management* 13(3): 221-229

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Point on Saturna Island in November. Between 2020 and 2025, Grey whales have been reported four times, once in 2020 and three times in 2022. One was in Active Pass near the Galiano Island side and the other three were in the Tumbo Channel/East Point area on Saturna Island.

Vessel Activity and Compliance



A Bigg's killer whale from the T049A pod has an unfortunate close encounter with a sailboat off Thieves Bay, Pender Island on September 4, 2025. Photo by Kathleen Durant.

The SGIWSN works closely with the Conservation and Protection team at Fisheries and Oceans Canada (DFO), the Transport Canada Whale Enforcement Program, and Parks Canada to report infractions in the Southern Gulf Islands, including VRZ violations, fishing violations, and breaches of the Marine Mammal Regulations. All reports submitted by the SGIWSN are reviewed by these agencies, which then contact vessel owners directly and may pursue enforcement actions, such as fines, when sufficient evidence is provided. The SGIWSN has been reporting infractions to these agencies since 2021. This review of non-AIS vessels focuses on 2023-2025, years that coincide with the introduction of our Jotform reporting system, and a significant increase in submissions. While reporting methods have improved, the overall trend suggests that the number of infractions has remained relatively consistent over the past five years.

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Marine Mammal Regulations Violations



A sailboat gets too close to the T123 pod of Bigg's killer whales on July 13, 2025, off Pender Island. Photo by Kathleen Durant.

Marine Mammal Violations

- Increased from 10 (2024) to 13 (2025)
- 62% involved commercial whale-watching vessels
- Most violations related to approach distances and leap-frogging

Reports of vessels violating Canada's Marine Mammal Regulations rose from 10 in 2024 to 13 in 2025 (Figure 4). Over this period, violations increased around Pender and Mayne Islands, and decreased around Saturna Island, dropping from six in 2024 to one in 2025, while Pender increased from three in 2024 to ten in 2025. In 2024, one violation occurred in the Saturna VRZ and two occurred in the Pender VRZ (Figure 4). No marine mammal violations were reported from Galiano Island.

All 2025 incidents involved killer whales: 12 BKW and 1 SRKW. Commercial whale-watching vessels accounted for 62% of infractions (n = 8) and

recreational vessels for the remaining 38% (n = 5). Most incidents (n = 12) were approach distance violations and some involved leap-frogging, with vessels positioned in the path of the

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whales (n = 6). Descriptions of all violations were reported to authorities along with photo, video, and/or theodolite measurements as evidence.

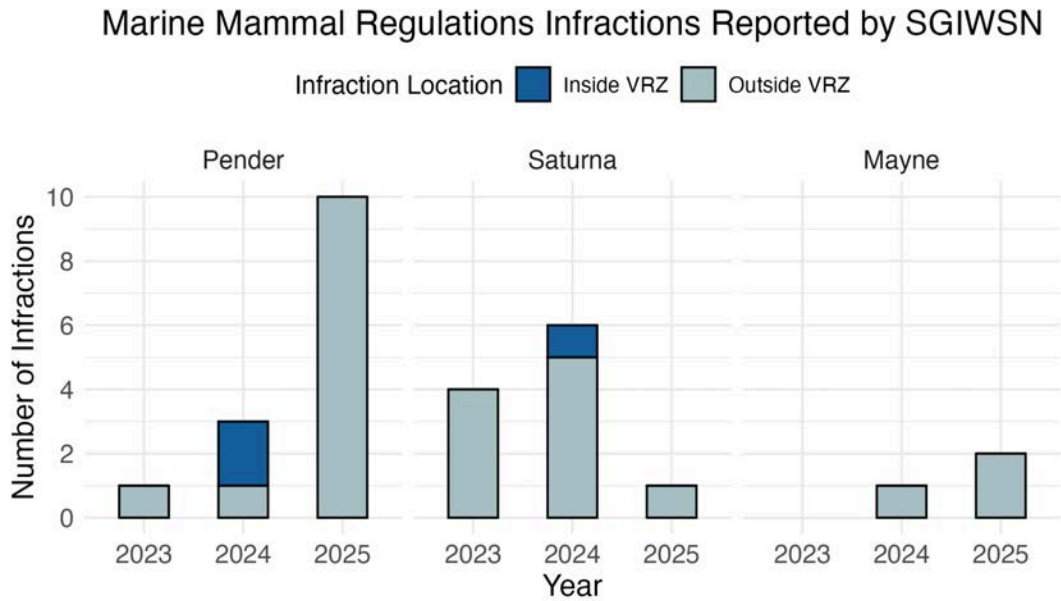


Figure 4. Number of Marine Mammal Regulations infractions reported between 2023 and 2025. Data reported by SGIWSN members from incidents in the Southern Gulf Islands.

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Fishing Violations



Overall, fishing violations declined from 95 in 2024 to 78 in 2025 (Figure 5), but trends differed between reports submitted from Pender and Saturna Islands. On Pender Island, violations rose from 38 to 61, with increases in both VRZ fishing and salmon fisheries closure violations (Figure 5). Reports around Saturna fell from 57 to 17. In both years, infractions included fishing in rockfish conservation areas, salmon fisheries closures, and VRZ fishing violations (Figure 5). No fishing violations were reported from Mayne or Galiano Islands.

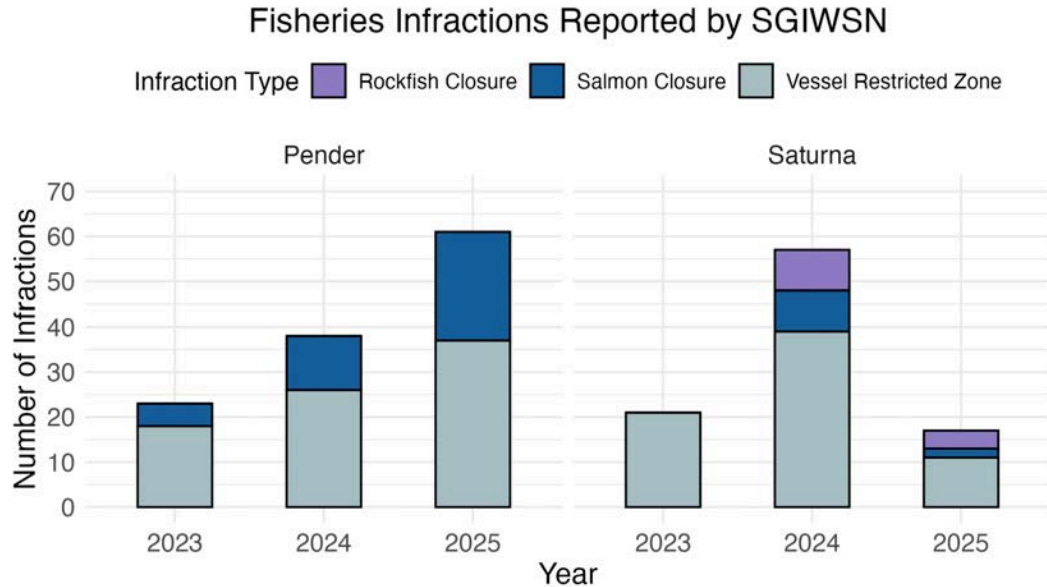


Figure 5. Number of fishing infractions reported between 2023 and 2025 based on data from SGIWSN members from infractions in the Southern Gulf Islands. Note: Although more reports were submitted, data for this figure were summarised by infraction (i.e. multiple reports of the same incident were counted as one infraction).

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For most vessels, the country of registration and registration numbers were not recorded, limiting enforcement agencies' ability to follow up with vessel owners. Only one offending vessel in each of 2024 and 2025 was identified via AIS, highlighting an additional enforcement challenge.

It is noted that when SRKW salmon fisheries closures are in effect in the Southern Gulf Islands, they overlap with the entire Pender VRZ and most of the Saturna VRZ. The Saturna VRZ section from Narvaez Bay to Cliffside lies within Salmon Management Subarea 18-5, within the closure, while the area east of the Light Station at East Point Park lies outside the closure⁶. See the link to a map of these fishing closure areas in the footnote below⁷. As a result, salmon fishing violations in these sections of the VRZs are both VRZ and salmon fishing infractions. For this reason, violations in these areas tend to be underreported. We recommend that SGIWSN members note in their fisheries reports when a violation qualifies as both a VRZ and a salmon fisheries closure violation if there is evidence of salmon fishing occurring.

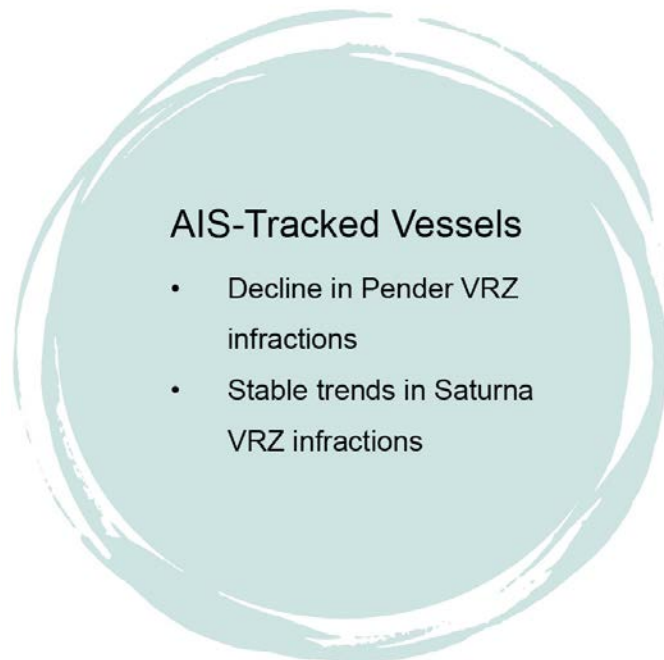
⁶ Fisheries and Oceans Canada (2024) Fishery Notice. Available at: https://notices.dfo-mpo.gc.ca/fns-sap/index-eng.cfm?pg=view_notice&DOC_ID=325202&ID=all. (accessed Mar 20, 2026).

⁷ Government of Canada (2025) Map of management measures in the Gulf Islands to support Southern Resident killer whale recovery. Available at: <https://www.pac.dfo-mpo.gc.ca/fm-gp/mammals-mammiferes/whales-baleines/docs/srkw-measures-mesu-res-ers/2025-srkw-ers-gulf-eng.html> (accessed Mar 31, 2026).

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Vessel Restricted Zone Compliance

AIS-Tracked Vessels



The Saturna and Pender Vessel Restricted Zones were established to provide Southern Resident Killer Whales (SRKW) refuge from physical and acoustic vessel disturbance⁸. However, over the past six years vessel compliance has remained low.

The SGIWSN uses AIS to track how marine traffic moves through these sensitive areas. AIS vessel presence in the Saturna and Pender VRZs is monitored between June 1 and November 30, when the zones are in effect (Figure 6). An infraction is logged every time a vessel enters either VRZ during this period, including repeat entries by the same vessel or the vessel stays in the zone for more than 60 minutes.

⁸ Transport Canada (2025) *Protecting killer whales in the waters of southern British Columbia – 2025 (SSB No. 09/2025)*. Available at <https://tc.canada.ca/en/marine-transportation/marine-safety/ship-safety-bulletins/protecting-killer-whales-waters-southern-british-columbia-2025-ssb-no-09-2025> (accessed Mar 18 2026)

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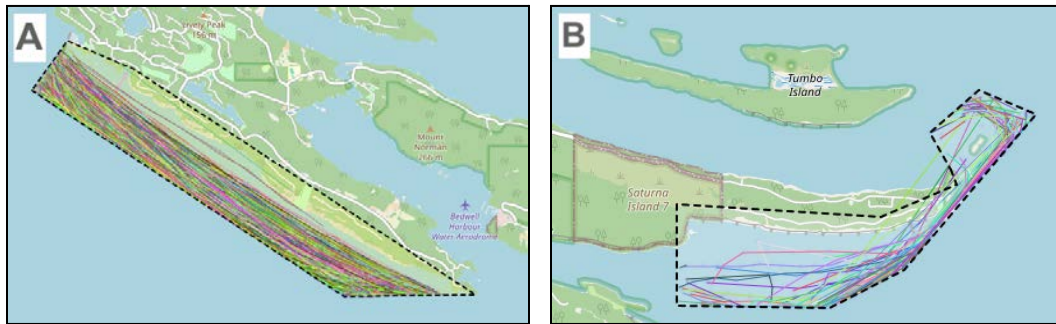


Figure 6. AIS-equipped vessels entering the A) Pender VRZ and B) Saturna VRZ from June 1 to November 30, 2025. The Pender and Saturna VRZs are shown with a dashed outline. Data and maps provided by Lucy Quayle.

In 2025, AIS-tracked vessel infractions in the Saturna VRZ returned to 2023 levels, after a slight uptick in 2024 (Figure 7). AIS vessels entries in the Saturna VRZ appear to follow a biennial pattern, with similar counts in 2022 and 2024 and in 2023 and 2025.

AIS vessel entries in the Pender VRZ have declined since 2024. The Pender VRZ recorded a 14% drop in AIS infractions from 2023 to 2024 and a further 17% decrease in AIS vessel entries from 2024 to 2025 (Figure 7). These trends strengthen our resolve to continue advocating for boater compliance in staying out of the VRZs.

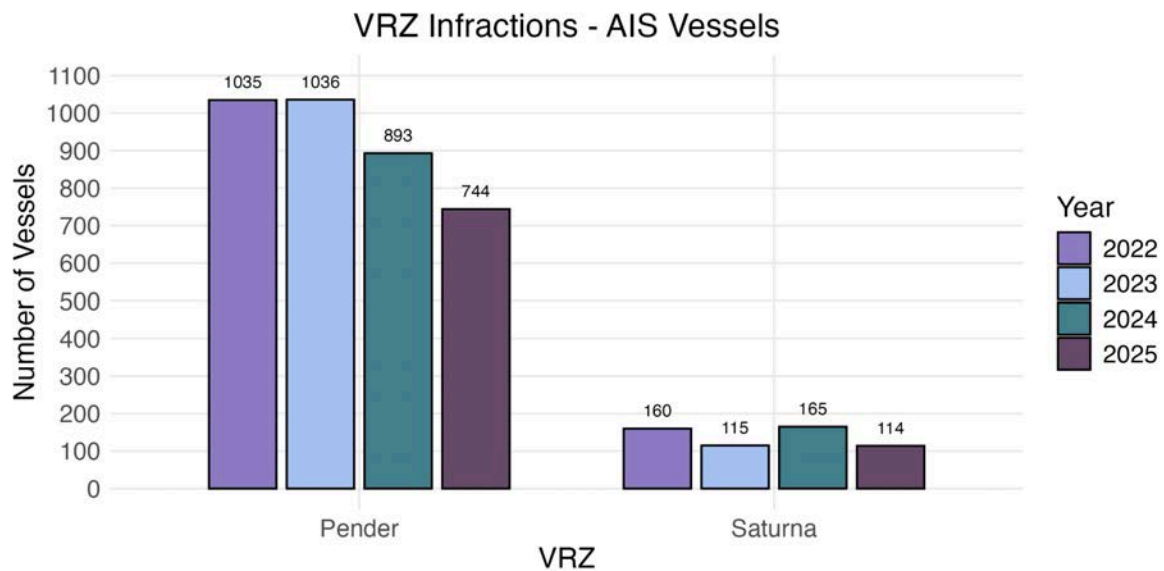
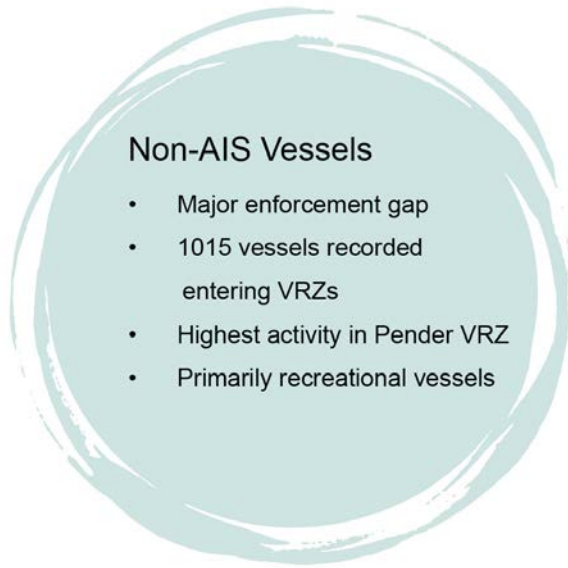


Figure 7. Number of AIS-equipped vessels entering the Pender and Saturna VRZs from 2022-2025. Data provided by Lucy Quayle.

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Non-AIS Vessels



In 2025, while AIS violations declined in the Pender VRZ, non-AIS vessel violations increased (Figure 8). Visually sighted non-AIS vessel entries rose from 45 in 2023 to 579 vessels in 2024, largely because survey effort increased with consistent researcher presence for the 2024 field season, revealing how underreported the non-AIS vessel data was in 2023. From 2024 to 2025, non-AIS infractions rose another 33% from 579 to 861 vessels. Increased researcher observation hours in 2025 suggest that changes in effort likely explain part of this rise. Overall, the trend underscores both the scale of vessel activity in the area and the importance of sustained observation for detecting otherwise undocumented violations.

In contrast, non-AIS vessel entries in the Saturna VRZ declined in 2025 (Figure 8). After relatively stable activity in 2023 and 2024, entries fell 42% from 265 to 154 in 2025. These results are encouraging, but further reductions are still needed.

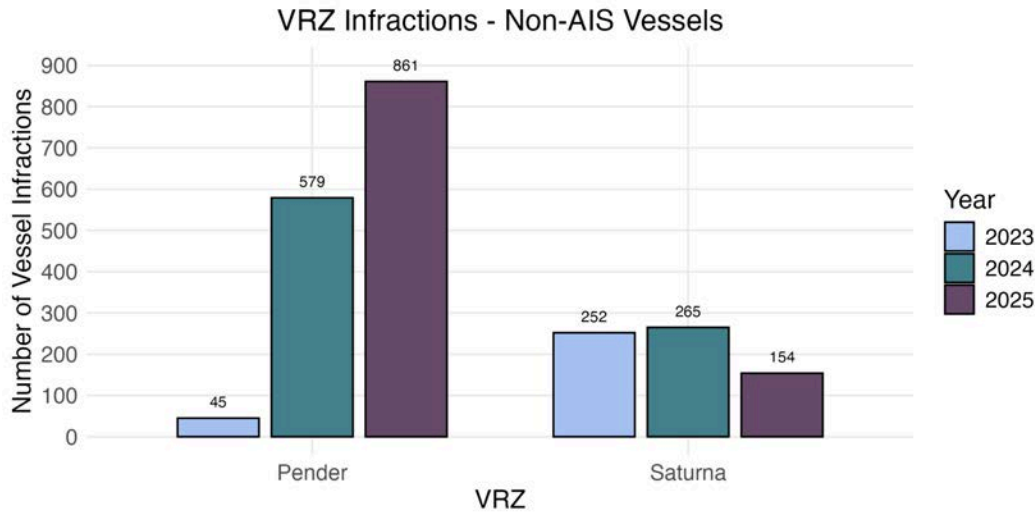


Figure 8. Number of non-AIS vessel infractions entering the Pender and Saturna VRZs between 2023-2025. Data reported by SGIWSN members.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

Non-AIS Vessels in the VRZs: Report for Transport Canada

Vessels without AIS tracking have long posed enforcement challenges in the VRZs. In 2025, Transport Canada contracted SIMRES to document and analyse non-AIS data in the Pender and Saturna VRZs. Using theodolite data on whale and vessel activity collected by researchers from both Oaks Bluff on Pender Island and East Point on Saturna Island, the report focused on effort-corrected non-AIS vessel data during the 2024 and 2025 field seasons. Key findings are summarized below.

The study found that the hourly rate of non-AIS vessels entering the VRZs decreased slightly from 2024 to 2025 in both the Pender and Saturna VRZs⁹ (Figure 9). This contrasts with Figure 6, which shows an increase in total non-AIS vessel entries in the Pender VRZ. While the Transport Canada dataset is limited to research submitted violations over the field season only, the main difference arises because the Transport Canada analysis standardizes vessel counts by observation hours to account for variation in researcher effort. As a result, the hourly rates provide a more accurate representation of vessel activity than total counts alone.

The study also found that non-AIS vessel entry rates are approximately five times higher in the Pender VRZ than the Saturna VRZ⁹ (Figure 9). A higher level of non-AIS traffic in and around the Pender VRZ is conclusive with SGIWSN observations and the relative traffic levels for AIS vessels entering each VRZ (Figure 6-7).

⁹ Saturna Island Marine Research & Education Society (2026) Non-AIS Vessel Data in the Southern Resident Killer Whale Vessel Restricted Zones: 2024-2025 Report. Report prepared for Transport Canada.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

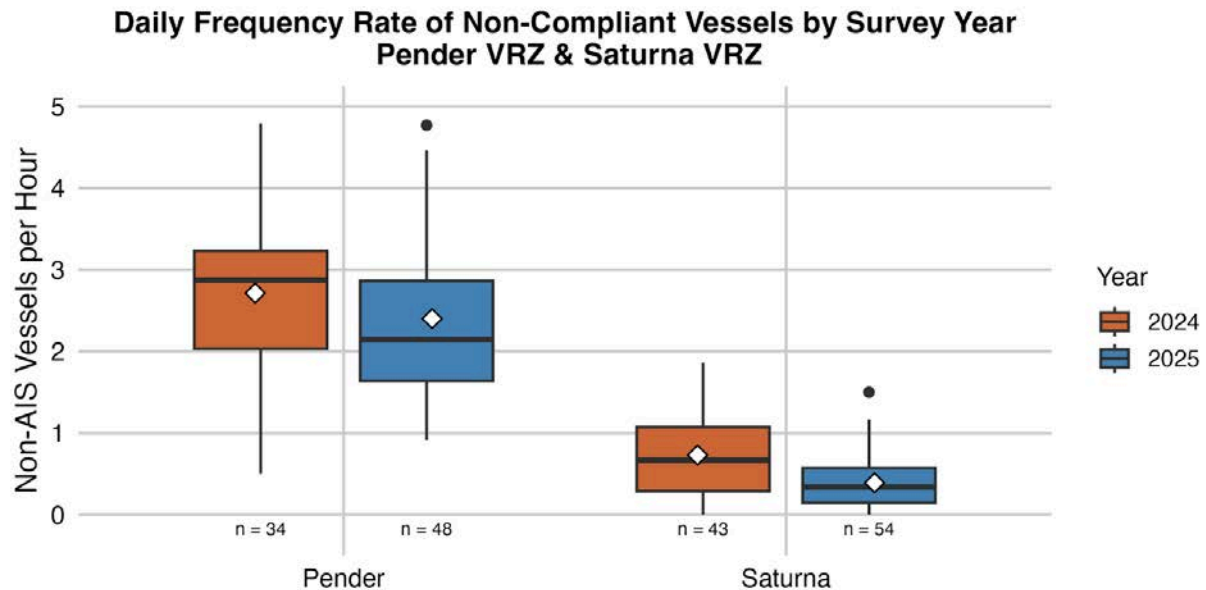


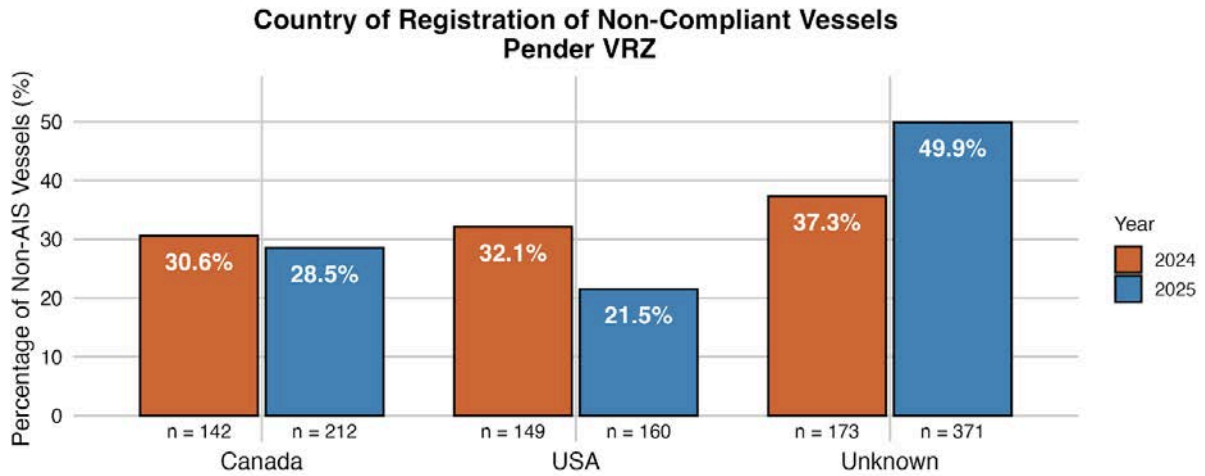
Figure 9. Variation in daily frequency rates of non-compliant non-AIS vessels entering the Pender and Saturna Vessel Restricted Zones by site and year during the 2024 and 2025 monitoring seasons. Includes data collected from July and August for both seasons and sites. The median value (50th percentile) is indicated by the black line in each box, and the lower and upper edges of the box represent the 25th and 75th percentiles respectively. The whiskers represent the minimum and maximum values in the data, and the dots outside the boxes represent outliers. The mean value is indicated by a white diamond. The sample sizes shown below each box represent the number of survey days in this data subset. Data and figure from: SIMRES, 2026.

Canadian and American non-AIS vessels occur in both the Pender and Saturna VRZs (Figure 10). Of the identified vessels in the Saturna VRZ, a higher proportion of vessels are Canadian than American, while in the Pender VRZ, the proportions between Canadian and American vessels are more equal (Figure 10).

Between 30.5% and 49.9% of all vessels could not be identified by their country of registration (Figure 10). Researchers reported that this happens when vessel registration numbers are illegible or missing entirely. This creates challenges for enforcement as the registration numbers are the only way to follow up with vessel owners about violations.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

A



B

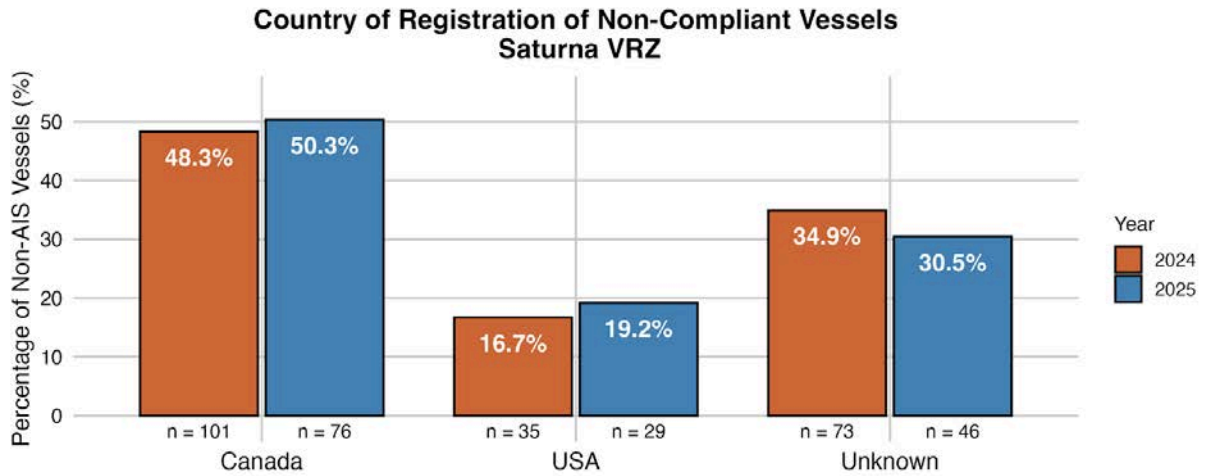


Figure 10. Percentage of non-compliant non-AIS vessels entering the Pender Vessel Restricted Zone (A) and the Saturna Vessel Restricted Zone (B) by country of registration during the 2024 and 2025 monitoring seasons. The sample sizes shown below each bar represent the number of vessels within this data subset. Data and figure from: SIMRES, 2026.

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Recreational non-fishing vessels are the primary VRZ violators, comprising 71% of all non-AIS vessels in the Pender VRZ and 77% of all non-AIS vessels in the Saturna VRZ across both seasons¹⁰. Non-compliance rates—the proportion of vessels entering the VRZs versus those that entered the Compliance Zone instead—are higher for recreational fishing vessels and jet skis off Pender and jet skis off Saturna, though these groups have small sample sizes and require further study¹⁰.

Analysis of different time periods showed that non-AIS VRZ violations per hour are higher during long weekend holidays than non-holiday periods, on weekends than weekdays, and in July and August compared to other months¹⁰.

Whale Track Maps

Maps were created using the researcher-collected theodolite whale sightings data from the 2024 and 2025 field seasons. SRKW, BKW, and humpback whales use both the Pender and Saturna VRZs and their surrounding waters (Figures 11-16).

¹⁰ Saturna Island Marine Research & Education Society (2026) Non-AIS Vessel Data in the Southern Resident Killer Whale Vessel Restricted Zones: 2024-2025 Report. Report prepared for Transport Canada.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

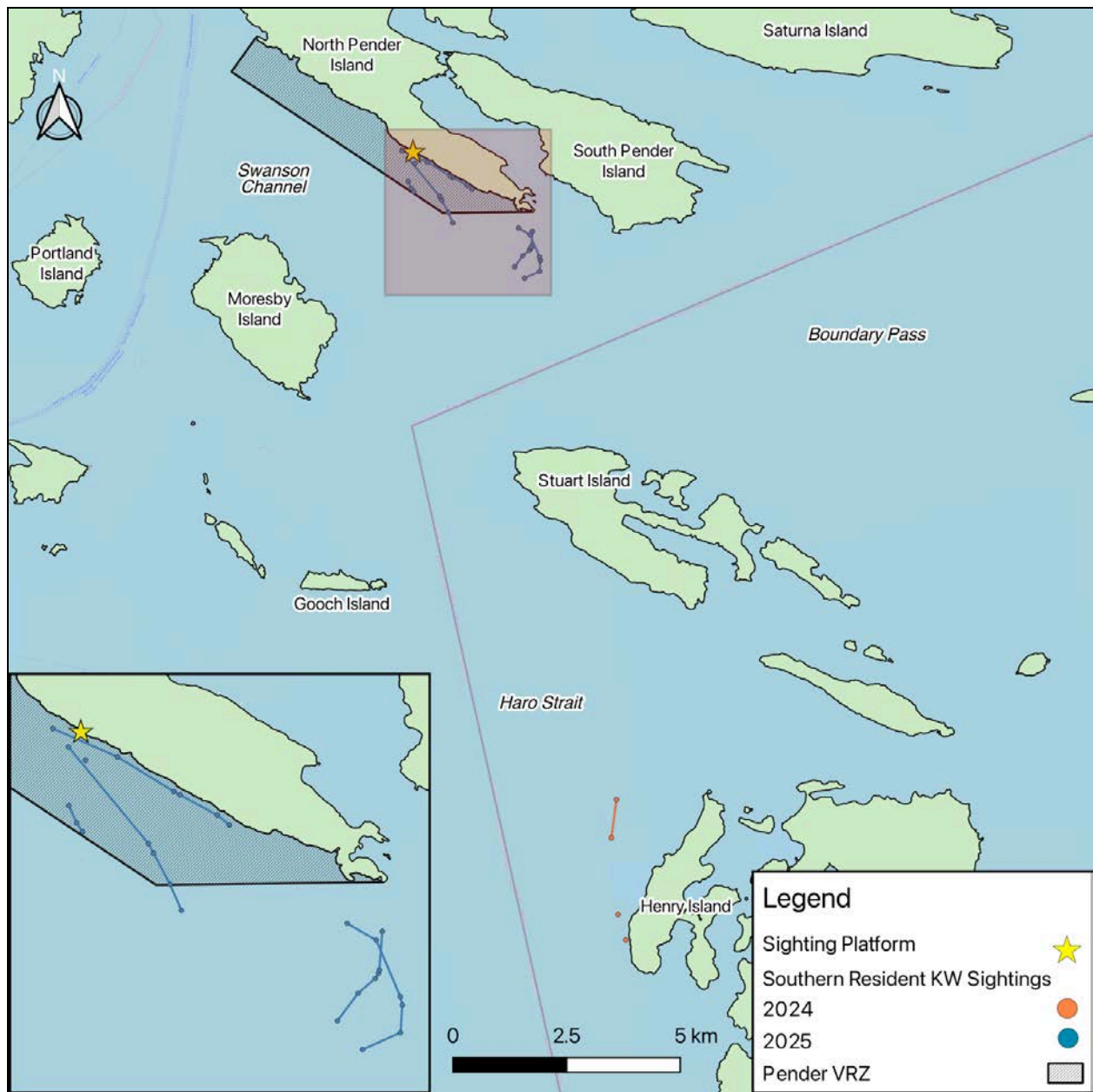


Figure 11. Sighting locations of Southern Resident killer whales in and around the Pender VRZ in 2024 and 2025. Sighting locations were obtained by researchers using a theodolite and *Mysticetus* whale tracking software. These sightings data are collected by the researchers only and do not represent the entire spatial coverage of the SGIWSN. Data were collected from July - October in 2024 and May - October in 2025. Data and map from: SIMRES, 2026.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

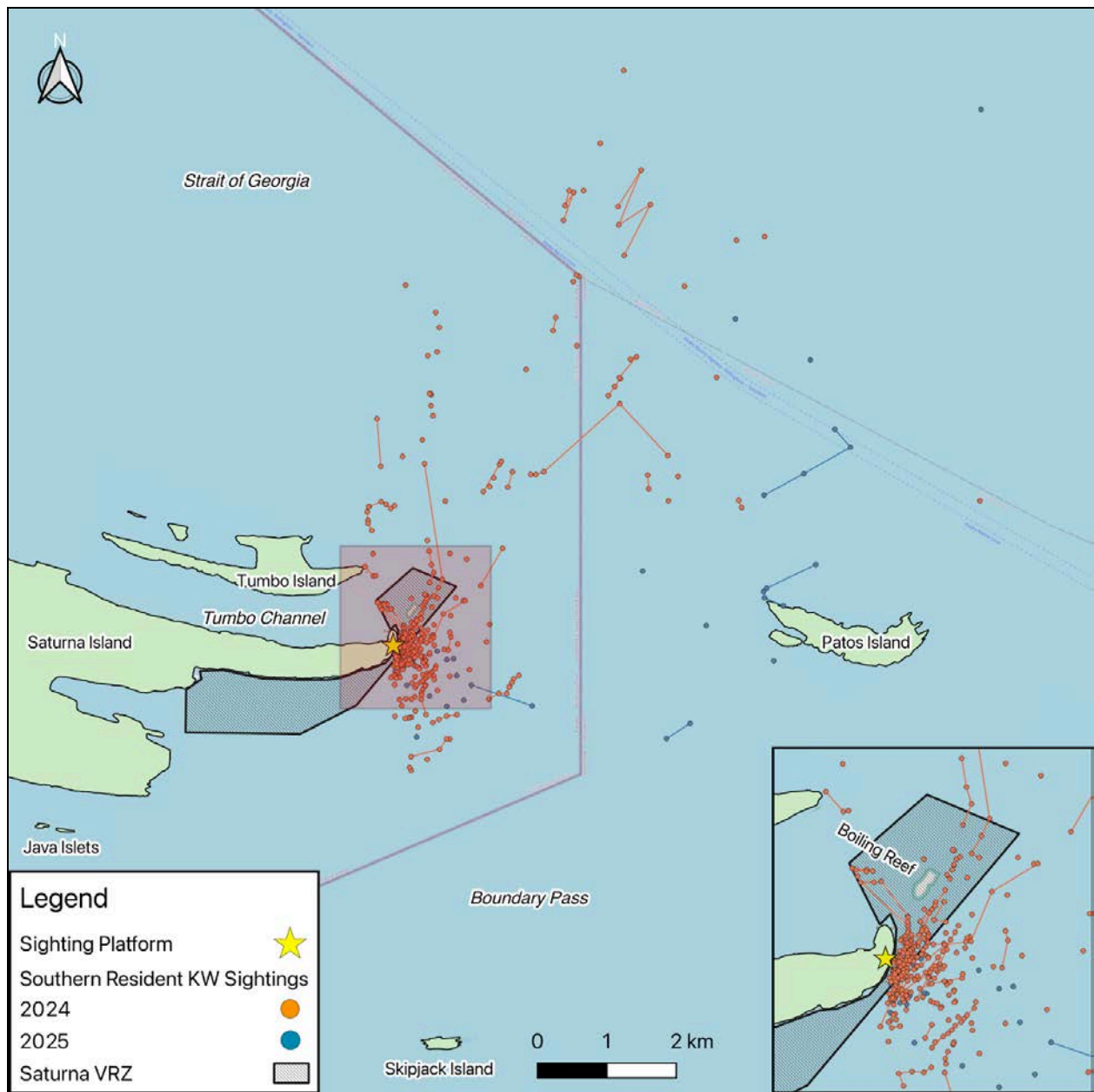


Figure 12. Sighting locations of Southern Resident killer whales in and around the Saturna VRZ in 2024 and 2025. Sighting locations were obtained by researchers using a theodolite and *Mysticetus* whale tracking software. These sightings data are collected by the researchers only and do not represent the entire spatial coverage of the SGIWSN. Data were collected from May - October 2024 and May - August 2025. Data and map from: SIMRES, 2026.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

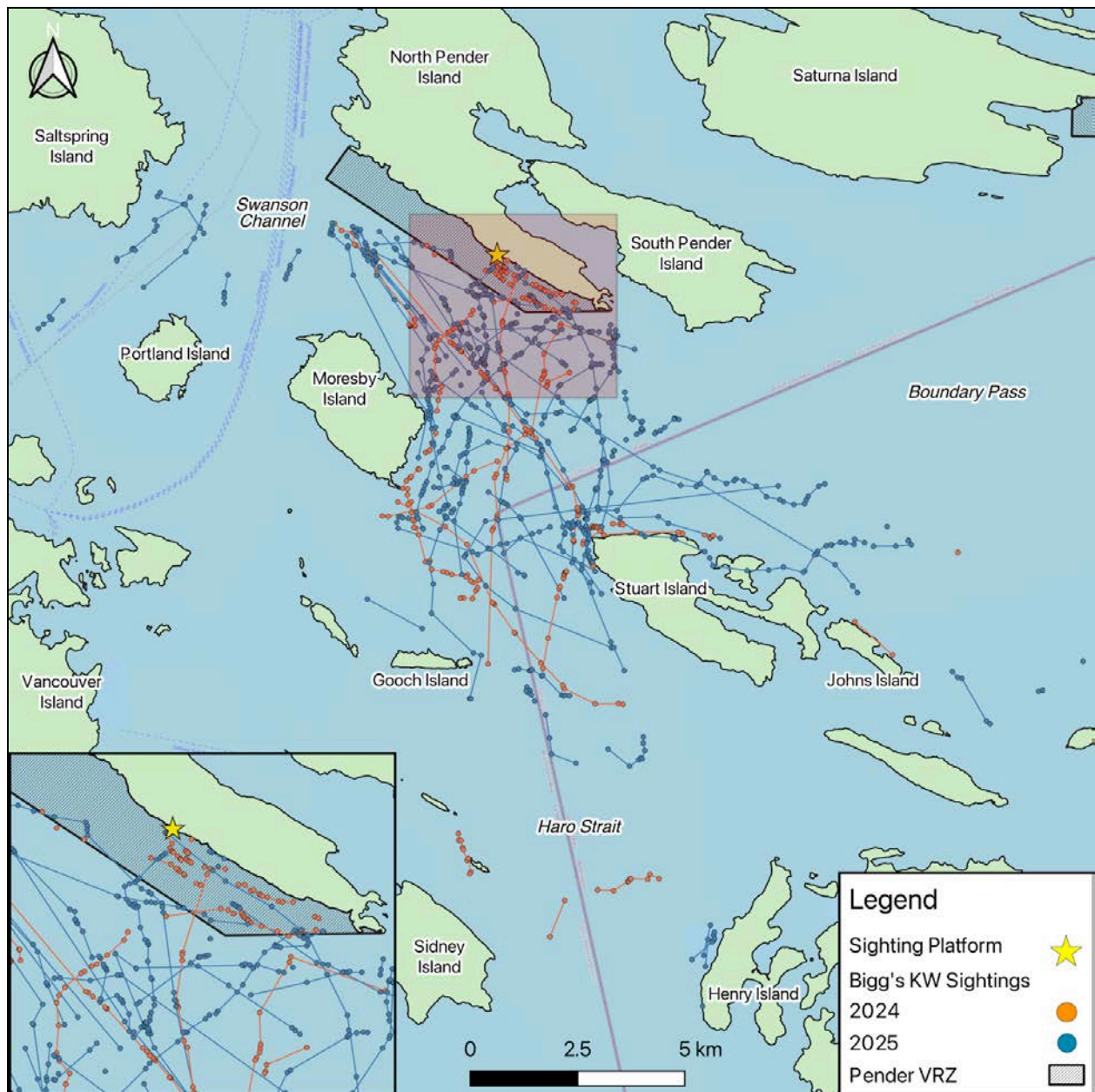


Figure 13. Sighting locations of Bigg's killer whales in and around the Pender VRZ in 2024 and 2025. Sighting locations were obtained by researchers using a theodolite and *Mysticetus* whale tracking software. These sightings data are collected by the researchers only and do not represent the entire spatial coverage of the SGIWSN. Data collected from July - October 2024 and May - October 2025. Data and map from: SIMRES, 2026.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

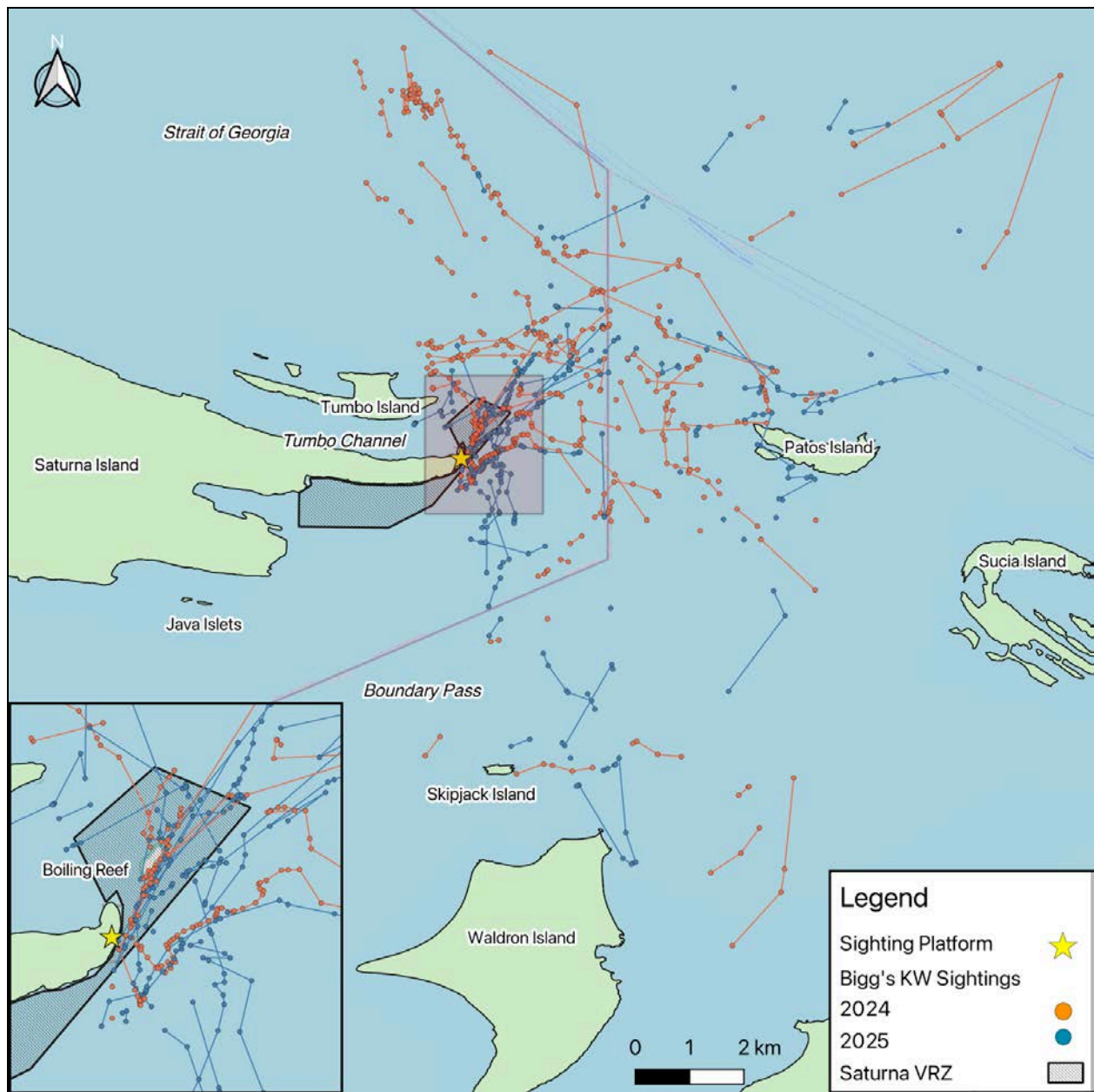


Figure 14. Sighting locations of Bigg's killer whales in and around the Saturna VRZ in 2024 and 2025. Sighting locations were obtained by researchers using a theodolite and *Mysticetus* whale tracking software. These sightings data are collected by the researchers only and do not represent the entire spatial coverage of the SGIWSN. Data collected from May - October 2024 and May - August 2025. Data and map from: SIMRES, 2026.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

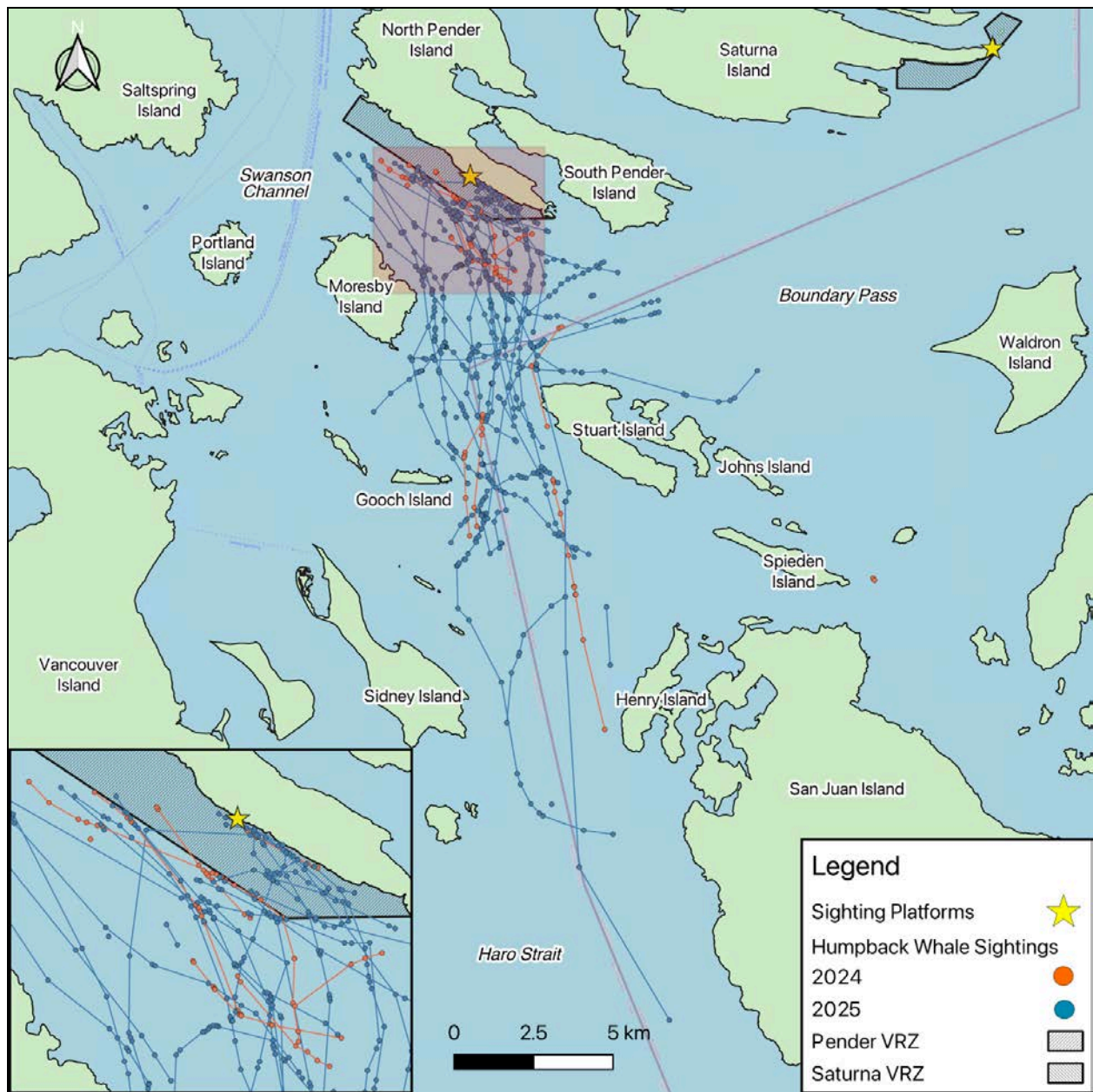


Figure 15. Sighting locations of Humpback whales in and around the Pender VRZ in 2024 and 2025. Sighting locations were obtained by researchers using a theodolite and *Mysticetus* whale tracking software. These sightings data are collected by the researchers only and do not represent the entire spatial coverage of the SGIWSN. Data collected from July - October 2024 and May - October 2025. Data and map from: SIMRES, 2026.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

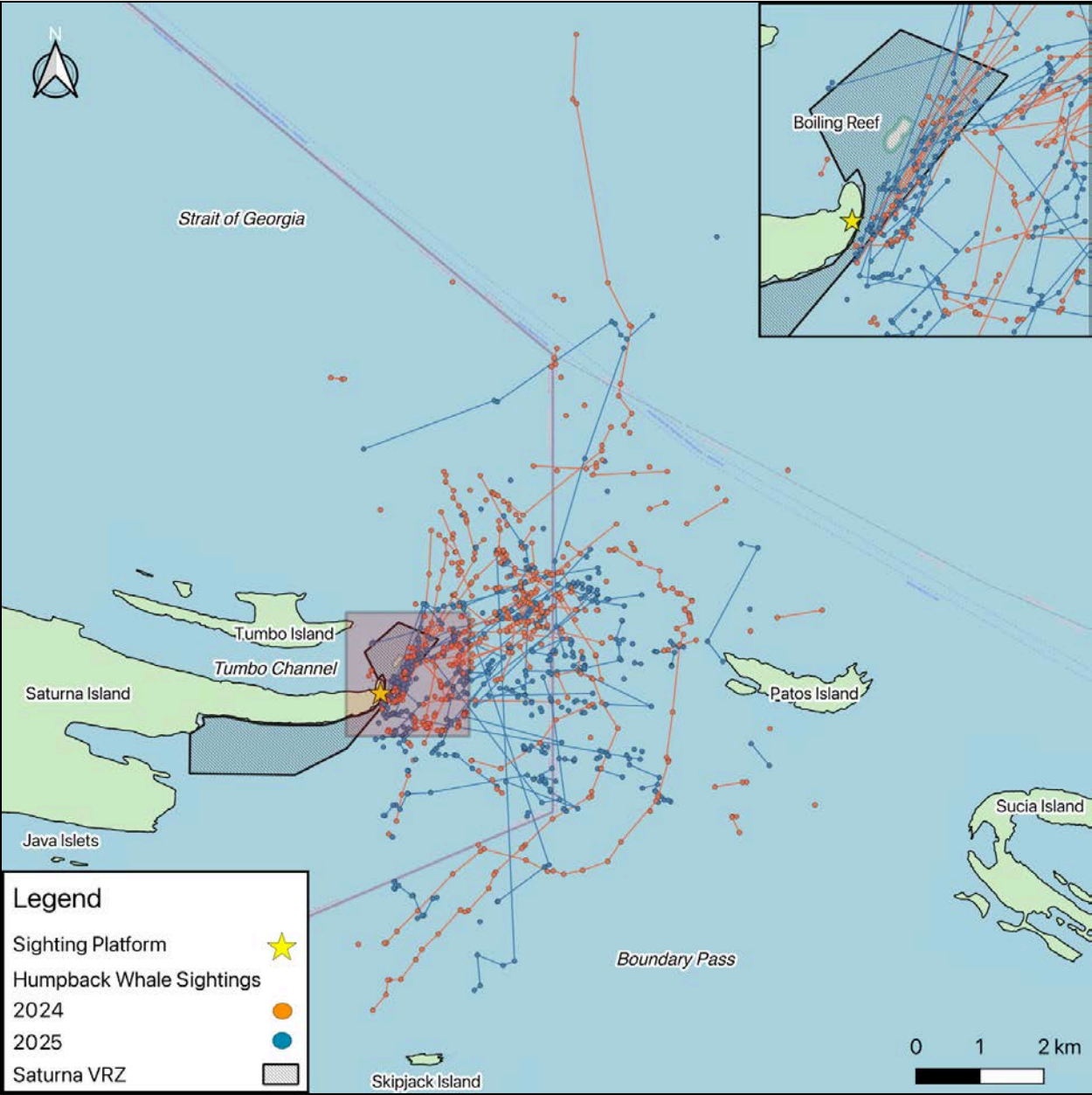


Figure 16. Sighting locations of humpback whales in and around the Saturna VRZ in 2024 and 2025. Sighting locations were obtained by researchers using a theodolite and *Mysticetus* whale tracking software. These sightings data are collected by the researchers only and do not represent the entire spatial coverage of the SGIWSN. Data collected from May - October 2024 and May - August 2025. Data and map from: SIMRES, 2026.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

Commercial Whale-Watching Impacts

Commercial Whale Watching Impacts

- Up to 11 vessels observed simultaneously with whales
- Vessel presence lasted entire observation periods for 4 of 5 events (up to 166 minutes)
- Evidence of cumulative disturbance from multiple consecutive vessels

The SGIWSN has long been concerned about cumulative disturbance to cetaceans from commercial whale-watching (CWW) vessels. Specifically, our concerns are twofold: (1) the number of CWW vessels watching a single whale or group of whales at one time; and, (2) how long CWW vessels remain with whales.

To examine these issues, we analysed several whale events from the 2025 season using observations collected from Pender Island. Researchers were continuously monitoring these events, identifying individual CWW vessels and distinguishing commercial operators from privately owned recreational boats.



The T046B and T123 Bigg's killer whale pods were pursued by whale-watching vessels off South Pender Island on May 31, 2025. Note this event is not included in Table 1. Photo by Kathleen Durant.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

Table 1 summarizes whale-watching vessel presence with Bigg’s killer whales and humpback whales. In the five 2025 events analysed, the maximum number of whale-watching vessels present at one time ranged from 4 to 11 vessels. More vessels present means a greater risk of physical and acoustic disturbance. By comparison, regulations in New Zealand¹¹, and Australia¹² permit no more than three whale-watching vessels to observe a single group of whales and/or dolphins at one time.

Table 1. Selected whale events with the longest duration and/or the highest number of commercial whale-watching (CWW) vessels observed within 1 km of the tracked whale(s) over the 2025 season. All whale events were tracked in Swanson Channel, Haro Strait, or Boundary Pass by researchers on Pender Island. BKW = Bigg’s killer whale. HB = Humpback whale. Data provided by Janine McNeilly.

Date	Species	Whale Event Duration (mins)	CWW Vessel Presence (mins)	Maximum # of CWW Vessels
07-11-2025	BKW	126	126	4
08-02-2025	HB	114	114	4
08-08-2025	BKW	166	166	7
08-09-2025	BKW	82	82	11
08-28-2025	BKW	144	136	6

The total time CWW vessels are present must also be considered. Even if individual vessels limit how long they stay with one group of whales, cumulative disturbance can still be substantial when multiple vessels operate the same day, and repeatedly join and leave the same group of whales. Table 1 reports the total duration of CWW vessel presence with each group of whales. CWW vessel presence is defined as a period of time when at least one CWW vessel is present and actively observing the whales, moving slowly and continuously following their movements.

In four of the five events in Table 1, vessels were present for the entire whale event observed by researchers, with some events lasting up to 166 minutes (about 2 hours and 45 minutes). The actual time CWW vessels spent with the whales was likely even longer when the whales moved out of the researchers field of view.

¹¹ New Zealand Legislation (2025) Marine Mammal Protection Regulations 1992: sections 19-20.

Available at:

<https://www.legislation.govt.nz/secondary-legislation/pco-drafted/1992/322/en/latest/#DLM168286> (accessed Mar 28, 2026).

¹² Australian Government (2025) Environment Protection and Biodiversity Conservation Regulations 2025: part 8. Available at: <https://www.legislation.gov.au/F2025L01584/latest/text> (accessed Mar 28, 2026).

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK



Humpback whales 'Big Mama/ BCY0324 and her 2025 calf were pursued by 3 commercial whale-watching vessels off South Pender Island on May 25, 2025. Note this event is not included in Table 1. Photo by Kathleen Durant.



Ten vessels surround the T065B pod of Bigg's killer whales near the Java Islets off Saturna Island on July 23, 2025. Note that there are both commercial whale-watching and private vessels present in this photo and this event is not included in Table 1. Photo by Nancy Angermeyer.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

Large Commercial Vessel Trends



A Humpback whale dives in the commercial shipping lanes in Boundary Pass off Pender Island on November 16, 2025. Photo by Kathleen Durant.

Large Commercial Vessel Trends

- Increased tanker traffic linked to Trans Mountain Pipeline expansion
- Rising underwater noise levels in Boundary Pass
- ECHO slowdown participation slightly declining (87% → 84%)

In 2025, the Vancouver Fraser Port Authority's ECHO Program voluntary slowdown for large commercial vessels in Haro Strait and Boundary Pass ran from July 15 - November 30. This start date was later than the slowdown periods in both 2023 and 2024 because the SRKW were absent from the Salish Sea in June and part of July 2025. As a result, fewer commercial vessels passed through these waterways during the 2025 ECHO slowdown period than in previous years in the Bulk Carrier, Car Carrier, Container, and Passenger vessel type categories (Figure 17).

For tankers, there was a dramatic increase in transits from 2023 to 2024, from 148 to 405. Tanker traffic remained high at 388 vessels transiting in 2025¹³ (Figure 17).

¹³ Commercial vessel data provided by the Port of Vancouver's ECHO Program.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

This surge followed the May 2024 expansion of Trans Mountain’s Westridge Marine Terminal in Burrard Inlet, which increased tanker capacity from 5 to 34 vessels per month¹⁴ and is tied to the Trans Mountain Pipeline Expansion (TMX) project, running between Edmonton and Burnaby. TMX is expected to triple pipeline capacity and significantly increase oil exports from the Port of Vancouver. The resulting increase in tanker traffic raises concerns about acoustic and physical disturbances, and other cumulative impacts on marine mammals and the Salish Sea coastal ecosystem. It is noted that while November 30, 2025 was the last day of the slowdown in 2025, the data provided by the ECHO program did not include data from the day of November 30, 2025¹⁵.

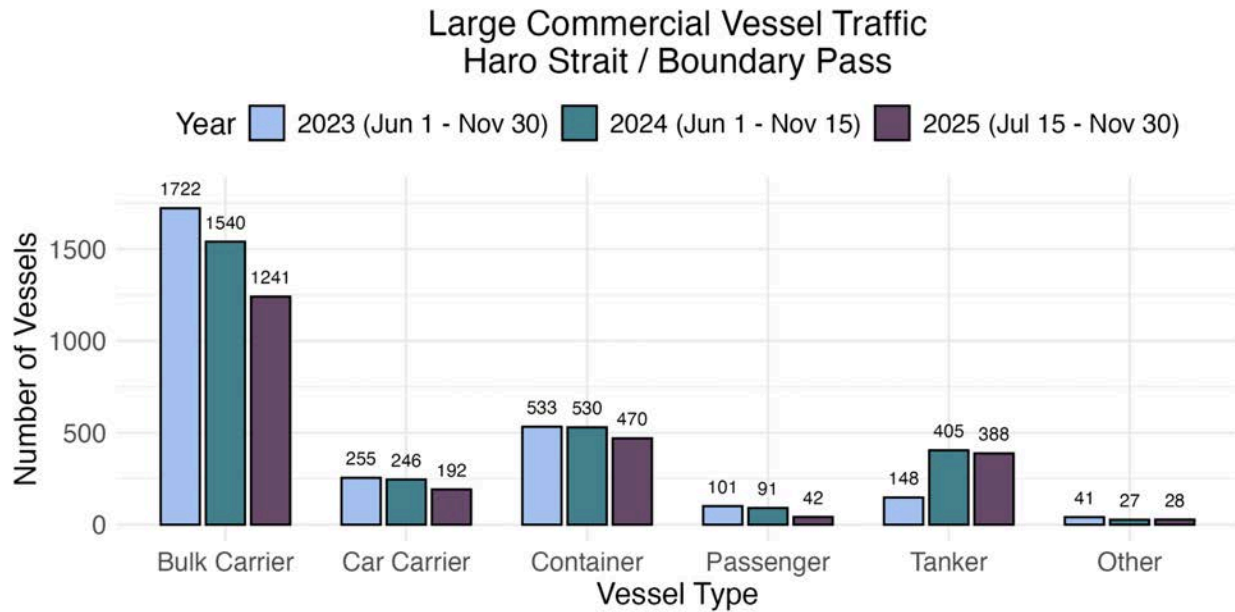


Figure 17. Number of large commercial vessels transiting through Haro Strait and Boundary Pass during the Port of Vancouver’s ECHO slowdown periods from 2023-2025.

On a broader scale, vessel presence and underwater noise have increased in Boundary Pass between 2017 and 2025 (Figure 18). According to a study soon to be published by Raincoast, in collaboration with SIMRES and Soundspace Analytics, based on detectable vessel noise, vessels are present for an increased percentage of time in nearly every month of the year.

¹⁴ Environmental Assessment Office (n.d.) *Roberts Bank Terminal 2 Project*. Available at <https://www.projects.eao.gov.bc.ca/p/5885121eaaecd9001b82b274/project-details> (accessed Mar 19 2026).

¹⁵ Commercial vessel data provided by the Port of Vancouver’s ECHO Program.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

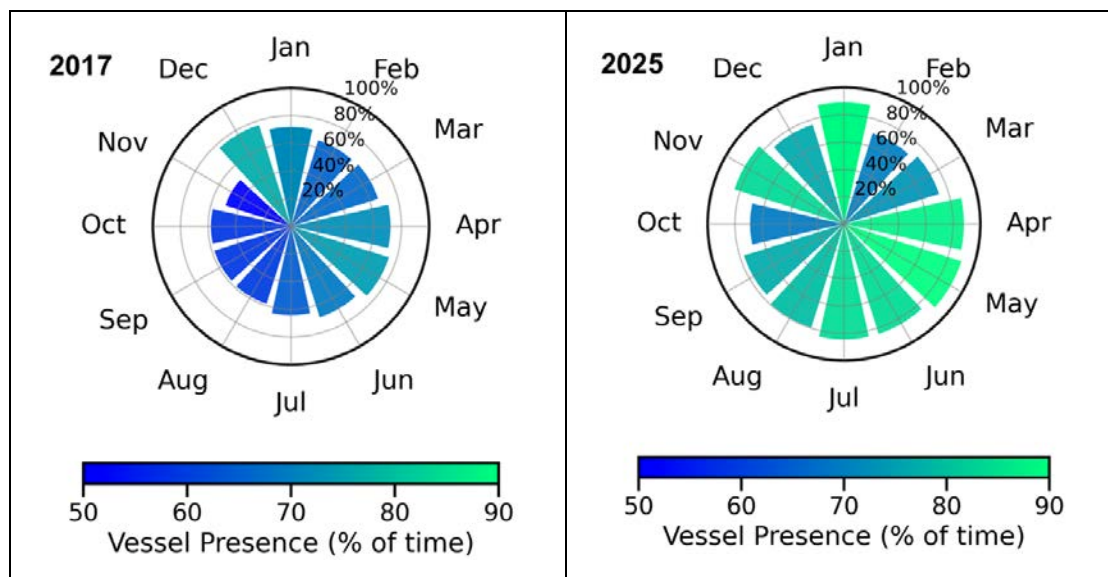


Figure 18. Pie charts illustrate vessel noise presence varied across months between 2017 and 2025. Each wedge shows the percentage of time vessel noise was detectable at Monarch Head, Saturna Island, for each calendar month. Color indicates the magnitude of vessel presence, from lower (blue) to higher (green), on a consistent scale across both years. Data collected by SIMRES at Monarch Head, Saturna Island. Analysis by SoundSpace Analytics. A collaboration between SIMRES and Raincoast Conservation Foundation, produced as part of the NoiseTracker project.

The ECHO Program is a voluntary commercial vessel slowdown with participation tracked annually. Overall participation was 87% in 2023, 86% in 2024, and 84% in 2025¹⁶. This downward trend is concerning, as every percentage point matters when SRKW need a quieter ecosystem.

Across all vessel categories, participation has remained above 80% for 2023, 2024, and 2025 (Figure 19). Most vessel categories have been relatively consistent over the previous three seasons, though there is room for improvement in all of them. Bulk carriers, in particular, show a slight decline. Because they account for most vessel transits (Figure 17), even small changes in participation translate to less vessels slowing down, when compared to other categories. It is encouraging that participation rates have remained consistent in the tanker category even though the total number of tanker transits has increased since 2023 (Figure 19).

In early 2026, the ECHO Program launched a trial slowdown period in March. This slowdown was triggered by SRKW presence in Haro Strait on March 1, 2026. We are encouraged to see the Vancouver Fraser Port Authority taking action earlier in the spring, as we have advocated that SRKW are present in the Salish Sea at this time of year.

¹⁶ Commercial vessel data provided by the Port of Vancouver's ECHO Program.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

ECHO Voluntary Slowdown Participation by Large Commercial Vessel Traffic in Haro Strait / Boundary Pass

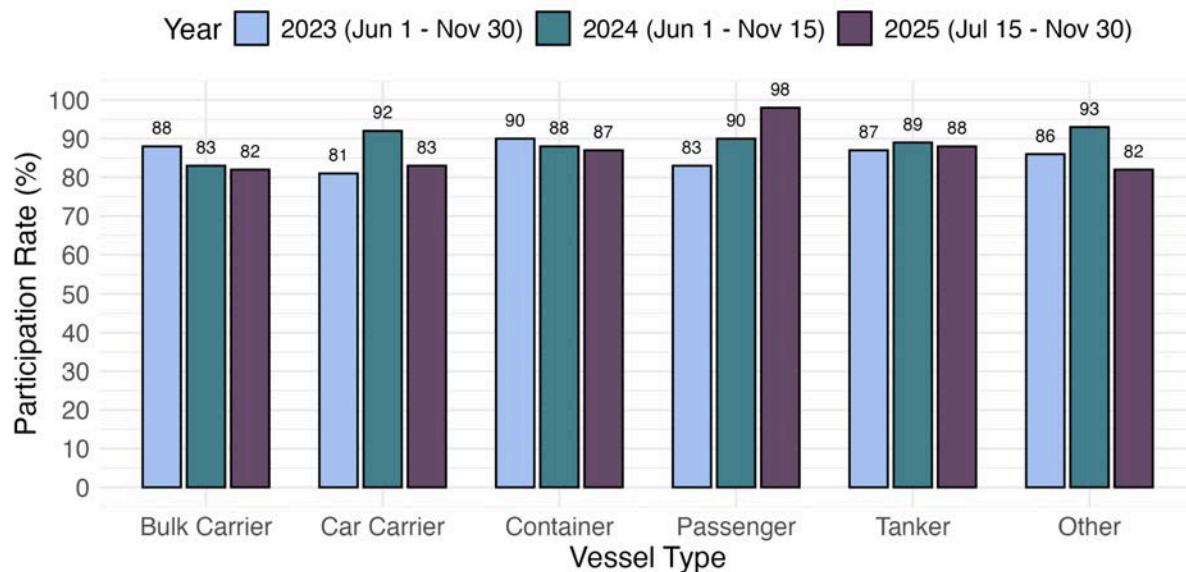


Figure 19. Slowdown participation rates of large commercial vessels transiting through Haro Strait and Boundary Pass during the Port of Vancouver’s ECHO slowdown periods from 2023-2025.



T065A5, ‘Indy’, travelling in the Strait of Georgia with a large commercial vessel in the background on November 9, 2025. Photo by Marlene Cummings from Russell Reef, Saturna Island.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

Impacts & Engagement

Impacts & Engagement

Connecting science and community through:

- Critical Distance immersive exhibit
- Public talks and outreach events
- Real-time data sharing via Discord and Spyhopper

Critical Distance, designed and produced by Vision3, is an augmented reality experience that immerses participants into the world of J Pod, one of the Southern Resident killer whale families. Using immersive storytelling and advanced technology, it shows how impacts of human activity, especially vessel traffic, affects these endangered whales, deepening our understanding of their lives and motivating action to protect their habitat.

Critical Distance



Critical Distance allows participants to experience the sights and sounds of the Salish Sea alongside J Pod of the Southern Resident killer whales. Photo by Vision3.

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

In June 2025, the SGIWSN brought Critical Distance to Victoria for Ocean Week. Over three days, SIMRES volunteers welcomed about 300 visitors to learn about whales and vessel impacts and experience the exhibit. A standout feature highlight was Kiki, a large inflatable orca, named after the exhibit's focal whale, greeting visitors from the street. Thanks to Canadian Orca Rescue Society for loaning us Kiki—her presence drew in many passerby, and tickets sold out, making this a great success.

Critical Distance is currently on exhibit at the Royal British Columbia Museum in Victoria with information to come about this in the SGIWSN 2026 Annual Report. Vision3 is working with Nature Canada and the Alliance of Natural History Museums of Canada to bring the experience to museums nationwide, sharing the story of the Southern Residents with a broader audience.

SGIWSN Recommendations

Vessel Restricted Zones

Currently, the VRZs are only active for six months of the year, from June 1 - November 30. SGIWSN data suggest the VRZs should be designated as permanent, year-round closures to improve effectiveness.

SRKW regularly use the Pender and Saturna VRZs when present in the study area (Figures 11-12), and these areas are also frequently used by BKW and humpback whales (Figures 13-16). Although this specific data was collected mostly during the VRZ active period (in late spring and summer), SGIWSN observations indicate these spatial patterns reflect year-round use.

Historic summer peaks in SRKW sightings have shown to be inconsistent in more recent years. While SRKW presence in the Southern Gulf Islands can be variable year to year, in 2025, 19 of 25 SRKW sighting days occurred outside the current VRZ period (Figure 1). In our study area, there is also a strong year-round presence of BKW (Figure 2) and a near year-round presence of Humpback whales (Figure 3). Year-round VRZs would better align protections with whale presence, while reducing boater confusion and improving compliance.

Increased Public Education and Communication

There are decreases in AIS vessel presence (Figure 7) and hourly rates of non-AIS vessels entering the VRZs have declined slightly (Figure 9). While it is encouraging that, beginning in 2024, the Coast Guard began hailing AIS-equipped vessels to alert them that they have entered the VRZs, more progress is needed. SGIWSN urges the federal government to improve

SOUTHERN GULF ISLANDS WHALE SIGHTING NETWORK

outreach for Marine Mammal Regulations and the Interim Order, especially vessel distance requirements and VRZ boundaries. Communications should be audience-specific and released in early spring, ahead of the busy boating season. We recommend a strong in-person outreach presence by Transport Canada, with officials posted at recreational boater hubs such as regional marinas in Sidney, Cowichan, Victoria, Friday Harbor, and Anacortes. Outreach at U.S. marinas is necessary due to the large portion of American vessels entering the VRZs (Figure 10). Lastly, there should be greater promotion of shore-based whale-watching as a sustainable alternative to on-water viewing.

Need for Enforcement

Boater education and enforcement must be closely linked. Enforcement is the weakest element of VRZ implementation. Frequent violations of VRZ boundaries undermine the effectiveness of these sanctuary zones. Many boaters are unaware of the rules, or assume there will be no penalties. Our data on VRZ violations and Marine Mammal Regulations violations indicate that increased enforcement efforts are needed for VRZ, approach distance, and leap-frogging violations.

Based on findings from the SIMRES 2026 report¹⁷, our recommendations for VRZ enforcement efforts for non-AIS vessels include:

- Enforcement should be prioritized during periods with the highest hourly VRZ entry rates—particularly on weekends rather than weekdays, particularly on holiday weekends, and in July and August compared to other surveyed months.
- Efforts should also focus on specific vessel types. Recreational non-fishing vessels should be the primary focus, as they account for the majority of VRZ entries. As a secondary focus, jet skis and recreational fishing vessels show higher non-compliance rates, but represent smaller sample sizes.
- Improving the visibility and enforcement of vessel registration numbers is critical. A large proportion of vessels entering the VRZs could not be identified due to illegible or missing registration (Figure 10), limiting the ability to follow up with vessel owners. Ensuring registration numbers are clearly visible would strengthen enforcement.
- Finally, enforcement resources should be prioritized for the Pender VRZ, where hourly non-AIS vessel entry rates are approximately five times higher than the Saturna VRZ (Figure 9). Resource allocation should reflect differences in vessel traffic and infraction levels across VRZs.

¹⁷ Saturna Island Marine Research & Education Society (2026) Non-AIS Vessel Data in the Southern Resident Killer Whale Vessel Restricted Zones: 2024-2025 Report. Report prepared for Transport Canada

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Overall, we urge enforcement to increase on-the-water patrol days and patrol durations. The SGIWSN looks forward to working with Transport Canada and DFO's Whale Protection Unit to strengthen enforcement.

Administrative Changes

As with most Fisheries violations which became ticketable offences in Canada in 2021, violations of Marine Mammal Regulations should also become ticketed offences¹⁸.

Well-documented marine mammal violations, supported by photos, videos, multiple witnesses, rangefinder data, or direct observation by fisheries officers should result in tickets. A transparent enforcement and compliance policy is needed to define response criteria and maintain a record of enforcement actions. Paired with incentives, this approach would increase compliance and help protect all whales in the Salish Sea, especially the endangered Southern Residents.

Commercial Whale-Watching

Commercial whale-watching is largely self-regulated and this system is not working: 62% of the marine mammal regulations infractions reported by the SGIWSN (n = 8) involve CWW vessels. To strengthen protection for SRKW and other cetaceans, the federal government should implement a licensing system for CWW operators. Such a system would increase accountability for companies and operators that break the rules. Washington State already uses a commercial whale-watching licensing system¹⁹.

In addition, this licensing system could be a way to regulate the number of vessels and viewing durations or viewing time windows for all cetaceans in the Salish Sea. Previous regulations in Washington State limited the number of CWW vessels and placed time limitations and windows

¹⁸ Government of Canada (2021) Government of Canada expands list of minor fishery offences subject to a ticket. Available at: <https://www.canada.ca/en/fisheries-oceans/news/2021/04/government-of-canada-expands-list-of-minor-fishery-offences-subject-to-a-ticket.html> (accessed Mar 29, 2026).

¹⁹ Washington State Legislature (2025) Chapter 220-460 WAC: Commercial Whale Watching and Paddle Tours. Available at: <https://app.leg.wa.gov/wac/default.aspx?cite=220-460> (accessed Mar 28, 2026).

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on CWW watching SRKW²⁰. Likewise, New Zealand²¹ and Australia²² currently cap the maximum number of vessels watching a group of whales and/or dolphins at one time at three.

Under the 2026 proposed Marine Mammal Regulations changes, the Authorized Vessel (AV) program will be dismantled. The AV program currently allows participating CWW operators to view BKW, at 200 m—closer than the approach distance of 400 m—in exchange for not watching endangered SRKW. This difference in approach distance has caused confusion among recreational boaters, who sometimes watch whales at the same distances as the CWW vessels.

Despite its flaws, the AV program provided regulatory oversight of CWW. Therefore, we support adopting a commercial whale-watching licensing system to replace and strengthen this regulatory function.

Approach Distances

Cetacean scientists recommend a minimum viewing distance of 1000 m for SRKW and urge Canada to harmonize approach distances with Washington State through science-based regulations to protect SRKW²³.

In March 2026, the federal government launched a consultation period to propose increasing the approach distance for SRKW to 1000 m starting June 1, 2026. While positive, it is concerning that SRKW and BKW will have different approach distances when boaters generally cannot tell them apart. In 2021, in the FAQ section of the Interim Order for the protection of the Killer Whale (*Orcinus orca*) in the waters of southern British Columbia, the Government of Canada stated: “The average boater does not have the ability to tell the difference between

²⁰ Washington State Legislature (2021) Chapter 220-460 WAC: Commercial Whale Watching and Paddle Tours, sections 110, 120. Available at: https://wdfw.wa.gov/sites/default/files/about/regulations/filings/2020/wsr_21-01-216_final.pdf (accessed Mar 29, 2026).

²¹ New Zealand Legislation (2025) Marine Mammal Protection Regulations 1992: sections 19-20. Available at: <https://www.legislation.govt.nz/secondary-legislation/pco-drafted/1992/322/en/latest/#DLM168286> (accessed Mar 28, 2026).

²² Australian Government (2025) Environment Protection and Biodiversity Conservation Regulations 2025: part 8. Available at: <https://www.legislation.gov.au/F2025L01584/latest/text> (accessed Mar, 28, 2026).

²³ Independent Science Panel on SRKW Recovery (2025) Strengthening recovery actions for Southern Resident killer whales. Available at: <https://www.raincoast.org/wp-content/uploads/2025/07/Independent-Science-Panel-on-SRKW-Recovery.pdf> (accessed Mar 30, 2026).

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Southern Resident killer whales and other killer whales, so must stay at least 400 metres away from all killer whales to be certain of not approaching Southern Residents.”²⁴

It was also announced that the approach distances listed under the Interim Order, will be incorporated into the Marine Mammal Regulations. SGIWSN believes it is essential not to lose the gains made under the Interim Order. In particular:

The prohibition on placing a vessel in the path of whales (sometimes referred to as ‘leap-frogging’) must be retained²⁵. This behaviour is frequently reported in our marine mammal regulations violation reports.

Approach distances for whales must not be reduced. Under the Interim Order, the approach distance for all killer whales in southern BC waters (from Campbell River to Ucluelet) is 400 m²⁶. Under the proposed regulation, the SRKW distance will increase to 1000 m, but the approach distance for BKW in this area will revert back to 200 m. Further research and scientific input is needed to determine an effective approach distance for BKW, particularly in the high vessel traffic areas of the southern Salish Sea.

We further recommend considering an increase in approach distances for humpback whales. Humpbacks remain submerged for extended foraging dives and can surface unexpectedly, creating a hazard for nearby boats. Furthermore, humpbacks do not echolocate and may be less spatially aware of vessels in their vicinity²⁶. These whales are large enough that boaters need to be aware of their presence well before reaching 100 m as this proximity is unsafe for both the whale and boaters.

Newborn calves are highly vulnerable. Soon after the Humpback whale, Big Mama, and her new calf were first sighted in late May 2025, SGIWSN members documented several CWW vessels surrounding them. Even with viewing distances for whales with calves increased from 100 m to 200 m, the distances seem to remain insufficient and need to be further scientifically reviewed if we are to better protect these species.

Authorities also need to more effectively monitor vessel approach distances. Researchers and sighters report very limited on-the-water enforcement of the VRZs and the existing approach

²⁴ Government of Canada (2021) Frequently Asked Questions - 2021 Interim Order Respecting the Protection of Killer Whales (*Orcinus orca*) in the Waters of Southern British Columbia. Available at: <https://tc.canada.ca/en/frequently-asked-questions-2021-interim-order-respecting-protection-killer-whales-orcinus-orca-waters-southern-british-columbia> (accessed Mar 28, 2026).

²⁵ Government of Canada (2025) Interim Order for the protection of the Killer Whale (*Orcinus orca*) in the waters of southern British Columbia, 2025. Available at: <https://tc.canada.ca/en/interim-order-protection-killer-whale-orcinus-orca-waters-southern-british-columbia> (accessed Mar 27, 2026).

²⁶ Marine Education & Research Society (n.d.) See a Blow? Go Slow! Available at: <https://mersociety.org/get-involved/post-a-sign/> (accessed Mar 27, 2026).

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distances. Enforcement vessels must spend more time on the water and remain with whales and nearby vessels for longer periods.

Finally, notices and education about the new SRKW approach distance need to be framed to the public using the precautionary principle: If they are unsure of the ecotype of killer whales, assume they are SRKW and stay at least 1000 m away.

Large Commercial Vessel Trends

Currently, the ECHO program commercial vessel slowdown is only active for up to six months of the year, from June 1 - November 30 (dependent on SRKW presence). SGIWSN data suggest this should be designated as a year-round program to improve effectiveness.

The SGIWSN study area comprises the commercial shipping lanes in Boundary Pass and Haro Strait. SRKW and other cetacean species use these waters year-round. SRKW presence varies year-to-year, however, in 2025, 19 of the 25 SRKW sighting days detected by our network actually occurred outside of the ECHO slowdown period (Figure 1). BKW and humpback whales are also present nearly year-round and would benefit from year-round measures (Figure 2-3).

Tanker traffic and resulting noise and physical disturbance increased in Boundary Pass and Haro Strait from 2023 to 2025 following the Trans Mountain Pipeline Westridge Marine Terminal expansion. To address these increased traffic impacts, and be more aligned with SRKW and other whale presence, the ECHO slowdown should be a year-round measure.

In early 2026, the ECHO program launched a trial slowdown in March, triggered by SRKW presence in Haro Strait on March 1, 2026. We are encouraged that the Vancouver Fraser Port Authority is acting earlier in the spring with evidence that SRKW are present in the Salish Sea at this time of year. We hope that this trial becomes part of the regular ECHO slowdown program and is eventually expanded to a year-round measure.

ECHO slowdown participation rates must also be increased (Figure 19). Greater participation rates further reduce vessel noise disturbance for whales. We encourage the Port of Vancouver to adopt new strategies to increase participation, including moving beyond incentive-only approaches to consider penalty-based or hybrid models.

Areas of Future Research

Although Transport Canada instituted a Voluntary Vessel Slowdown zone in Tumbo Channel, sighters report that noise from recreational fishing vessels in Tumbo Channel is a continuing concern. Tumbo Channel is a popular fishing area for small recreational boats. This narrow channel, located adjacent to the Saturna VRZ, has the potential to be a zone of disturbance for

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whales. Sighters have documented that the channel is also used by the SRKW. More research is needed to assess the frequency and duration of SRKW and vessel use, and the level of vessel disturbance posed to SRKW in Tumbo Channel.

Further research is needed on the effectiveness of the current VRZ boundaries, including both their size and the specific areas they encompass. Our sightings indicate that SRKW frequently use the area between the Saturna and Pender VRZs, as they travel the waters between the islands. We plan to conduct additional research to assess how often and how long SRKW use these areas. These findings could help inform improvements to VRZ design and enhance the effectiveness of protections for SRKW.

Another area of future research that the government needs to address is the possibility of the “magnet effect”. The magnet effect is defined as the phenomenon of commercial whale-watching vessels drawing in recreational vessels to a group of whales, causing more vessel disturbance²⁷. A review completed for the Washington Department of Fish and Wildlife concluded at the time of the 2020 review, there was insufficient evidence to support the existence of the magnet effect²⁸. Further study on this topic could have important implications for further limiting commercial whale-watching presence.

Lastly, an ecosystem-based approach is essential for SRKW recovery. For example, kelp forests provide important nursery areas for many marine species, including salmon²⁸, a key prey item for SRKW. SIMRES has documented a steady decline of kelp within the Saturna VRZ, historically a robust kelp bed where SRKW were commonly seen foraging. This loss is linked to urchin overabundance, which are kelp-grazers. Although management interventions have been proposed, urchin harvest is not permitted during the limited time period when it is viable. This reflects a greater problem: current measures are not addressing the ecological foundations of SRKW habitat. Effective recovery will require research, funding, and policy that support ecosystem-based management, including the protection and restoration of kelp forests.

²⁷ Washington State Academy of Sciences (2020) Summary of Key Research Findings about Underwater Noise and Vessel Disturbance. Report prepared for Washington Department of Fish and Wildlife. Available at: https://wdfw.wa.gov/sites/default/files/2020-09/reportwsas_srkw_summary.pdf (accessed Mar 29, 2026).

²⁸ Kelp Rescue Initiative (2025) Why Kelp. Available at: <https://www.kelprescue.org/about#anchors-migdq3l2> (accessed Apr 7, 2026).

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Looking Forward to 2026

The SGIWSN is entering 2026 with strong momentum and a renewed focus on collaboration, innovation, and community-driven conservation. We look to continue working with Transport Canada, DFO, and Parks Canada to improve reporting protocols and ensure that critical cases are escalated effectively.

Public engagement remains a priority, with Critical Distance at the Royal BC Museum in Victoria until July 2026, sharing the story of the Southern Resident Killer Whales with new audiences.

A key 2026 goal is to increase whale reports from members. Although the SGIWSN has over 140 sighters, all of the whale reports from 2025 came from 68 sighters. If you are a sighter that reports some of the time or not at all, we encourage you to report every sighting. More reporting helps us build a more complete and accurate database.

We also intend to ask sighters to report more fishing infractions, especially violations of salmon fisheries closures for SRKW throughout the Southern Gulf Islands. See the link to a map of these areas in the footnote below²⁹. Some fishing subareas are closed to salmon fishing from July 16 - November 30, based on SRKW presence during a preceding monitoring period. These closures support SRKW recovery and monitoring compliance is key. Please report violations to DFO using our fishing infractions Jotform.

Salmon fishery closure areas overlap with all of the Pender VRZ and the western portion of the Saturna VRZ, along Cliffside to roughly the Light Station at East Point. If a salmon fishing infraction occurs within these areas and there is evidence of salmon fishing, please note in your report that it qualifies as both a VRZ fishing and a salmon fisheries violation. Sighters are encouraged to use our fishing infraction Jotform to report Rockfish Conservation Areas violations as well. Several areas around the Southern Gulf Islands are closed year-round to fishing for rockfish. See the link to a map of these areas in the footnote below³⁰.

²⁹ Government of Canada (2025) Map of Management Measures in the Gulf Islands to support Southern Resident killer whale recovery. Available at: <https://www.pac.dfo-mpo.gc.ca/fm-gp/mammals-mammiferes/whales-baleines/docs/srkw-measures-mesu-res-ers/2025-srkw-ers-gulf-eng.html> (accessed Mar 31, 2026).

³⁰ Government of Canada (2015) Rockfish Conservation Areas - Area 18. Available at: <https://www.pac.dfo-mpo.gc.ca/fm-gp/maps-cartes/rca-acs/areas-secteurs/18-eng.html> (accessed Apr 15, 2026).

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Bigg's killer whales traveling past David Cove, Mayne Island with a BC Ferries vessel in the distance on August 29, 2025. Photo by Yves Tiberghien.

In 2026, the SGIWSN will build on the momentum of 2025 and deepen its role as a regional leader in marine stewardship. Key directions include collaborating with BC Ferries to develop a protocol for ferry speeds in Swanson Channel and Active Pass—work that is already underway—and improving the integration of acoustic data from the SIMRES hydrophones with visual sightings, supported by new funding opportunities.

We thank every member and partner for their continued participation and support. Your observations, dedication, and collaboration are the foundation of this network. We want to close by acknowledging and thanking our partners. Together, we are making a meaningful difference for whales in the Salish Sea.

Partnerships

The success, creativity, and impact of the SGIWSN are made possible by the active support of our neighbours, colleagues, and friends.

Simon Fraser University (SFU)

2025 marked the sixth consecutive year that master's students from SFU conducted research from East Point on Saturna Island. These researchers make a valuable contribution to the SGIWSN, monitoring the VRZ almost daily throughout the summer and providing detailed observational data. Their master's theses advance the scientific understanding of the

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interactions between cetaceans and vessels, helping to build a knowledge base for effective monitoring and mitigation measures.

Raincoast Conservation Foundation

Raincoast Conservation Foundation and the SGIWSN began actively collaborating in 2023. Both organizations have shared acoustic and visual sightings data and continue to collaborate on regional priorities. In 2024 and again in 2025 Raincoast contributed financial and research support to monitoring of the Pender VRZ. The SGIWSN was honoured to receive the Nightingale Bursary in Ocean Engagement at the Raincoast Ocean Science Awards in November 2024 and recognized our work again in 2025.

QENTOL, YEN / W̱SÁNEĆ Marine Guardians

The QENTOL, YEN / W̱SÁNEĆ Marine Guardians Program stewards their traditional territories by surveying marine mammals, monitoring compliance with vessel regulations, championing the KELŁOLEMEĆEN (killer whales) and other endangered species. As a vessel-based program, the Guardians are uniquely positioned to communicate directly with boaters about marine mammal regulations. In 2024, the SGIWSN and QENTOL, YEN began sharing whale observations, giving each organization a more complete picture of cetacean presence in the region. The SGIWSN values the Guardians' willingness to share their knowledge with our network.

Straitwatch

The Straitwatch South team, part of the Cetus Research & Conservation Society, monitors the southern part of the Salish Sea focusing on vessel behaviour around marine mammals, especially the SRKW and commercial whale-watching vessels. In 2024, SGIWSN and Straitwatch launched a collaboration for real-time communication about whale sightings and vessels of concern advancing our shared goal of protecting marine mammals.

Island Conservancies

We appreciate the ongoing support of several Southern Gulf Islands conservation groups, whose contributions have been integral to the success of our network. The Pender Ocean Defenders, Mayne Island Conservancy, and Galiano Conservancy have assisted with community outreach, supported local sighter recruitment, facilitated training, and helped maintain communication channels. In 2024, all three organizations also collaborated with us to present Critical Distance on their respective islands.

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Nature Canada

Effective policy depends on partnerships and thoughtful data analyses. Our work with Nature Canada builds on our shared commitment to whale conservation and the need to create protected areas in the Salish Sea. Nature Canada has helped SGIWSN promote our research and Critical Distance nationally by providing networking opportunities and resources and by collaborating with federal agencies. The goal of our work together is to define essential parameters for progress toward the long term goal of creating a Marine Conservation Area in the Salish Sea and to support the recovery of the SRKW population.

Vision3

We are grateful to Vision3 for helping SGIWSN to take Critical Distance on the road. Their immersive experience which uses digital art to show how acoustic disturbance impacts Southern Resident killer whales helps us share the story of J pod with the public. We look forward to continuing this meaningful partnership as Critical Distance reaches new audiences in museums across the country.

Government Agencies

SGIWSN values our relationships with Transport Canada, Fisheries and Oceans Canada (DFO), and Parks Canada. In 2024, SGIWSN was honoured that the enforcement divisions of these agencies recognized the quality and consistency of our infraction reports. Their feedback reinforces the value of our community-based monitoring network and the high standard of documentation that our volunteers provide.

We are hopeful these agencies will increase their on-water presence and outreach to strengthen compliance with marine mammal regulations.

In 2025, Transport Canada contracted the SGIWSN to document and analyse non-AIS vessel data in the Saturna and Pender Vessel Restricted Zones and to prepare a report on the findings to support improved enforcement. We hope the recommendations will guide new enforcement measures and benefit the whales.

Spyhopper

Since 2021, the SGIWSN has partnered with Spyhopper to store and display our data including sightings, acoustics, and photos. Spyhopper's creator and administrator, Lucy Quayle, has been a valued member of the SGIWSN community since completing her master's research on Saturna Island in 2020. Explore SGIWSN whale data and more at spyhopper.ca

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JASCO Applied Sciences

The SGIWSN values our partnership with JASCO. In collaboration with Transport Canada, JASCO operates the Underwater Listening System, an array of hydrophones in Boundary Pass. We thank April Houweling for sharing JASCO acoustic detections with SGIWSN and uploading these clips to Spyhopper to compliment SGIWSN's visual sighting.



Bigg's killer whale, T019B, 'Galiano', breaking the surface off Oaks Bluff, North Pender Island on May 6, 2025. Photo by Janine McNeilly.

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How You Can Help

We are often asked, “What can I do to help?” Here are some ideas to consider.

Reducing disturbance

- Watch whales from shore. The Whale Trail is a great resource to find land-based whale-watching locations in the Pacific Northwest (<https://thewhaletrail.org/>).
- When you encounter whales on the water, go above and beyond the Marine Mammal Regulations and guidelines. The less disturbance the better.

Reporting

- Report whale sightings using the WhaleReport App by Oceanwise.
- Report vessels that are violating the Marine Mammal Regulations or posing disturbance to whales.
 - For SGIWSN members, please report all vessel infractions you see within the Southern Gulf Islands. As a reminder, you can access our reporting form on the “how-to-report-infractions” tab on our Discord channel.
 - For members of the public, please report instances of whales being disturbed or harassed to the DFO Marine Mammal Incident Reporting Hotline (1-800-465-4336).

Advocacy

- Write your Member of Parliament to advocate for larger approach distances for whales.
- Advocate for policies that reduce large ship noise.

Purchasing

- Buy sustainable seafood.
- Do not buy farmed salmon.
- Buy local items to reduce shipping by sea.
- Reduce your use of plastics.

Please consider donating to SIMRES so we can continue our work to protect whales and other species in the Salish Sea. You can donate using the QR code below.



SIMRES 

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Resources

Saturna Island Marine Research & Education Society (SIMRES). <https://simres.ca>

Saturna Island Marine Research & Education Society (2026) Non-AIS Vessel Data in the Southern Resident Killer Whale Vessel Restricted Zones: 2024-2025 Report. Report prepared for Transport Canada

Spyhopper. <https://spyhopper.ca>

Report prepared by Olivia Murphy and Susie Washington-Smyth. Adapted from the SGIWSN 2024 Annual Report prepared by Janine McNeilly and Susie Washington-Smyth.